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## **Airports as Cityports in the City-region**

**Spatial-economic and institutional positions and institutional learning in  
Randstad-Schiphol (AMS), Frankfurt Rhein-Main (FRA), Tokyo Haneda (HND)  
and Narita (NRT)**

**Michel van Wijk**

Utrecht 2007

Koninklijk Nederlands Aardrijkskundig Genootschap  
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# Preface

The cliché goes that Ph.D. students are locked up in the university's attics for at least four years to conduct their research. I was amongst the fortunate ones who had the opportunity to experience the academic attics in the inspiringly different surroundings of Rotterdam, Frankfurt, Tokyo and Utrecht for years. Therefore, I experienced the dissertation period as partly personal development, as living in oriental Tokyo impacted my life in various ways.

This research was set up as a modern variant of PhD research: the Habiforum foundation co-financed research in cooperation with universities and in this particular case a planning consultancy firm where I had already done an internship in 1999. This cooperation of Habiforum, Utrecht University and Ecorys in Rotterdam provided the start for my research in September 2001, focussing on economic incentives for land use on the regional level.

First and foremost I am grateful to Prof.dr. A.M.J. Kreukels, professor at the Urban and regional Research centre Utrecht (URU), Utrecht University, and Prof.dr. W.K. Korthals Altes, professor at research institute OTB of Delft University of Technology, and formerly working as a senior consultant at Ecorys. Both Ton Kreukels and Willem Korthals Altes gave me a considerable amount of freedom to conduct an international comparative study, and provide the confidence I needed for writing this book. In particular I appreciate Willem's practical solutions and thorough knowledge of planning. This was, in my eyes, a very good match with Ton's long experience, critical attitude, detailed hand-written comments, and foremost inspiration, or what in Germany is called 'Doktorvati'. The team of supervisors was completed by two experienced managers, who continued to be interested in the findings as the research took more time than managers normally have: thank you Dick Regenboog (partner of Ecorys) and Dick Hendricks (retail consultant).

As research moved on, so did I, eastbound. For the Frankfurt case study I am thankful to Dr. Ch. Rohrbach-Langhagen, who offered me a working place at the Department of Geosciences and Geography (KSR), Johann Wolfgang Goethe University in Frankfurt am Main, and commented on the case study report in detail. In particular his contacts and detailed knowledge of economic geography in the Rhein-Main city-region were very useful. For the Frankfurt Rhein-Main case I also very much appreciated the supervision of Prof.dr. sc.techn. Bernd Scholl, director of the Institute of Urban and Regional Planning of University Karlsruhe (TH) later followed by Prof.dr. Bodo Freund, professor at the Institute of Geography, Humboldt University Berlin.

I was lucky to be awarded a research student scholarship by the Japanese Ministry of Education and the Japanese embassy in Den Haag. So I moved to Tokyo in April 2004. I will not forget the five months East-Asian style intensive language course, with seven hours of class a day and three hours of self-study of Japanese language and culture. This introduction was indispensable for the interviews and data research in Japanese. The Hitotsubashi University in Kunitachi, Tokyo, offered both the language course and research facilities. At Hitotsubashi Graduate School of Economic Geography I was grateful that Prof.dr. Fujio Mizuoka accepted

me as one of his Ph.D. students. Students of Hitotsubashi helped me with translation of interviews and data analysis. I am in particular happy about the support I got from graduate students Nagahito Haginiwa, Hiroshi Kaneko, Ken Kimura and Suno Naniwa. For meeting the actors in Japan, contacts and networks are indispensable. Therefore I am indebted to Mr. Atsushi Suzuki, director at the Information and Research Department of the Ministry of Land, Infrastructure and Transport in Tokyo. His help and contacts opened doors that otherwise would have remained closed, and he provided important background information for understanding complicated dynamics in Japanese institutions. Two Dutchmen also provided infinite Tokyo inspiration and key contacts, Koen Klinkers and Paul Chorus.

Halfway through the two-year scholarship in Japan, I regularly returned to the Netherlands for interviews and literature research on the Schiphol and Randstad case studies, so I could avoid the Tokyo crowds but had to miss the delicious okonomiyaki and sashimi. Utrecht University provided the research facilities and I enjoyed the help of the Faculty of Geosciences. I would like to thank all colleagues and former colleagues at the Urban and regional Research centre Utrecht (URU), the GIS section, Geomedia for editing and Nethur for the research courses.

Conducting research is probably half the work of finishing a book. For publishing the book, I would like to thank the sponsors, who are mentioned on the cover. Before editing, the chapters, that cover a variety of research fields, were discussed with experts in their fields of study. I was very happy to have positive feedback from Prof.dr. Ron Boschma, Prof.dr. Frans van Waarden and Dr. Bart Wissink at Utrecht University, and Dr. Luca Bertolini, Dr. Enrico Gualini and Prof.dr. Willem Salet at the University of Amsterdam, Dr. Guillaume Burghouwt (SEO), and Mr. Willem Trommels, former director of SADC. For reading and English correction, I know I put a heavy burden on friends' shoulders. Thank you so much for the hours of editing: David van Bezooijen, Devan Reiff, Kevin Lee, Marieke Riethof, Menno van der Woude, Nicole de Bree, Nikos Karadimitriou, and Stephanie Manning. Jorrit Hoekstra, Stefan Fritz and Rien Rabbers helped a lot with making maps for this book.

Furthermore, I would like to thank my 'planning friends' for their useful comments, including Daniela Wullers, Gordon de Munck, Koen Vervoort, Stan Majoor and William Smit. Daniela even arranged a stay at her parents' house in Maintal. Paul and Jutta Wullers provided news, while noisy airplanes over-fly their town east of Frankfurt, and might find themselves in note 6.23. Consultant Koen kept being surprised that his deadline was the end of the day while my deadline was somewhere five years later. The planning-virus goes even as far as I am indebted to co-captain Casper Hootsen of our planning soccer team, who managed the team well when I was on my way to Tokyo or Frankfurt again. Luckily enough, planning was never an issue during the 'third half'.

I want to thank my parents Paul and H el ene van Wijk, supporters from the very beginning in focussing on research and learning. I dedicate this book to them. They always come visiting, or bring me with their handyman van. There was only one person, Naoko Kuge, who matched her career to this bumpy road of moving from Amsterdam to Frankfurt and later Tokyo. Luckily enough I managed to convince this Kansai Hanshin Tiger to live with me in rival Tokyo, which she didn't regret. I hope as a fianc ee she is also looking for the joint road ahead with a better understanding of oriental and western institutions, whether in Amsterdam or Tokyo.

Michel van Wijk  
Amsterdam, November 2006

# 1 Introduction

## 1.1 City-regions, cityports, and airports at a first glance

In the era of globalisation and structural economic adjustments, competition between city-regions on various spatial scales increases.<sup>1</sup> Each of these global cities and city-regions strives towards a competitive position in the worldwide economic hierarchy. The notion is growing that regions themselves are becoming the most important actors both in creating the opportunities the city-region offers and in and making use of these opportunities (Friedmann 2001). A numerous amount of studies explores which factors allowed regions as Silicon Valley and Baden-Württemberg to become internationally successful. Economic specialisation and the possibility of establishing a specific position in the worldwide network of competing city-regions are crucial in this (Storper 1997).

Studies so far have discussed the fact that these city-regions specialise in a competitive world economy, and the way in which they do this. But, until recently, the question why certain economic sectors prospered particularly in these city-regions, remained unanswered. Hall and Soskice's (2001) recent answer is that a specific institutional setting favours specific developments. In liberal market economies such as those of the United States, the United Kingdom and Australia, the institutional setting enhances both possibilities for revolutionary developments and for innovations that are suitable for specific economic sectors. Coordinated market economies as found in the Netherlands, Germany and Japan are due to stable qualities and less market dynamics favourable for development of other economic sectors. In the long run, both institutional models lead to comparable levels of welfare and there is no predominant successful model. It is according to Hall and Soskice (*ibid.*) this variety of institutional arrangements with different approaches that leads to institutional complementarities (cf. Aoki 1997).

In order to understand the variety of models, institutional differences, similarities and complementarities (Hall and Soskice 2001) need to be explored. Salet and De Jong (2000) describe these properties as institutional pullers and triggers. Globalisation, differentiation in governmental acting and an increasing variety of spatial scales, as well as the increased importance of private actors in policy making are to Salet, Thornley and Kreukels (2002) the dominant tendencies that ignite institutional changes. It is these factors that put the question forward whether the current metropolitan policy models are fit for the changing economic realities.

The city-region can be considered as one node in the international economic network of city-regions with a regional embeddedness. This position forces the city-region to remain competitive and to expand its economic position. In this ubiquitous globalisation trend in the city-regions, external information exchanges are crucial, while on the other hand internal linkages and the internal geography of the city-region is the natural counterpart of globalisation (Hall 2001) The city-region is here defined as:

*“Functionally integrated area consisting of both a core or central city (or cities) which usually lends its name to the area in question and, contiguous with it, a region that serves the multiple collective needs of this city and provides a space for its future expansion”* (Friedmann 2001:123).

It is not just to traditional monocentric global cities as New York and London (Sassen 1991) that the described tendencies apply, urging them to develop into economically successful metropolises. These tendencies can increasingly be perceived, in polycentric regions such as Randstad Holland and Frankfurt-Rhein Main (Scott 2001). On a lower level of scale within the city-regions, nodes of (new) economic developments can be distinguished. These nodes are more and more related to the level of the city-regions by the integrating forces of infrastructure and by their interlinked position with the scale increase of the urban labour market in particular (Graham and Marvin 2001). Because these economic dynamics are combined with infrastructure and urbanisation, they create new spatial concentrations, and are essential city-regions comparisons.

*At the intersection of economic, infrastructure and urban developments, new centres develop. These new and existent centres are referred to as cityports in this dissertation. It is a typology of urban concentrations in the city-region that show rapid economic development and is internationally connected by infrastructure. They fulfil the role of port to the city-region, a place to stay and a traffic node at the same time, for instance in traditional downtowns, edge cities, (high speed) train stations, and airports.*<sup>2</sup>

In coordinated market economies, these cityports are strategic development locations. They can establish links between infrastructure and economic activities on the one hand, while on the other hand spontaneous market driven development based on an urban critical mass can be found at these locations. Since these cityports are economically profitable locations, there are opportunities for physical concentration, spatial quality and mixed land use. This contributes to the qualitative elements, where the cityports fulfil the function of a port, place and a node at the same time (Hartwing 2000). The cityports are not isolated units. Rather, they function in the context of the globalizing city-region as a whole. Cityports are complementary in the city-region; the variety of cityports is more than the sum of all cityports individually.

This research outline would allow for a study of a variety of cityport developments. However, it is necessary to focus further on the area development near airports in order to limit the research object. The airport area is loosely defined as *the airports, vicinity of the airport, and the wider airport region in the city-region*. Its economic activities are increasingly dynamic and are worth further research. The airport areas have the economic potential to become locations of mixed land use, with high urban qualities. They can also become magnets to entrepreneurs and visitors.

However, despite developments such as the *Airport City* (Güller and Güller 2002) and the regionally connected *Aerotropolis* (Kassarda 2000), planning practice regularly shows mixed spatial-economic results. Simmonds and Hack (2000) in particular address the poor urban qualities of the high-potential urban areas. They lack infrastructure and public space, and the relation between the airport and the wider urban fabric of the city-region is underdeveloped.

The question becomes relevant how governments deal with the opportunities of these dynamic and strategic locations as airports within their institutional contexts, while facing increased competition with other city-regions. These institutional contexts themselves are also dynamic.



Furthermore, governments in coordinated market economies are no longer the single dominant actors, and they increasingly share tasks with market actors. It is therefore essential that connectivity between different spheres of interaction of public and private actor coalitions is established on the level of the city-region (Salet *et.al.* 2002).

## 1.2 Theoretical perspective

Economic theories can help in understanding economic developments in the city-region that result in urban and regional developments. Economic theory revolves around demand and supply of scarce goods and services as well as around rules of the trading game. In this dissertation, those rules of the game that are imposed on actors and that are developed by the actors (both government and market actors) are considered to be most important. For this reason, theory of institutional economics offers an interesting perspective for this study. The perspective of new institutional economics (Healey and Barrett 1990, Van der Krabben and Lambooy 1993) in combination with evolutionary economics (Nelson and Winter 1982, Lambooy and Boschma 2001) in particular will be applied. Both theories focus on the gradual change of the rules of the game, as well as on their importance in the processes that take place in developing private and public actor coalitions. In the past, with the notable exception of Scharpf (1997), institutional theory focused too much on the role of governments. Hall and Soskice (2001) fit in the recent trend by bringing companies back to the centre of research. The positions of enterprises and economic sectors are according to the new insights in new institutional economics leading in institutional analysis. Additionally, location qualities, real estate demand, strategies of developing actors and the institutional context are other important factors in the area development process according to Healey and Barrett (1990). Institutions are here defined as:

*“The rules of the game in a society or more formally the humanly devised constraints that shape human interaction. In consequence, they structure incentives in human exchange, whether political, social or economic”* (North 1990:3).

Institutions are not limited to formal rules of the game (legal rules and regulations) but also include the informal rules of the game (acting, practices, values and norms) that are applied by the actors as strategic parties (March and Olsen 1989).<sup>3</sup> Acting, practises and norms and values are increasingly accepted as the deeper roots that co-determine acting, alongside the formal rules of the game.

The present research requires that we further categorise the rules of the game into specific groups of institutions. The argumentation and elaboration is discussed in chapter 5. Here, we introduce in brief:

- *Socio-cultural institutions*: local cultural characteristics and specific embeddedness based on historical roots of institutions and national policy models and styles;
- *Financial institutions*: the financial incentive that governments give market actors to invest in area development; either by subsidies and taxes, or by direct investments in projects that are not directly profitable for the market, in particular public;

- *Economic institutions*: the conditions in which market actors are willing to invest in spatial developments in cooperation with governments;
- *Institutions of governance*: horizontal (cross-sector) and vertical (between levels) organisation of governments, co-production of policy-making with non-governmental actors;
- *Legal institutions*: the legally embedded rules of the game of actors, as an outcome of institutions of governance, in, amongst others, plans, legal procedures and property development.

Institutions and combinations of institutions (institutional arrangements) are not static. They evolve over time in a process of institutional change and adjustment that is discussed in depth in chapter 5. Institutional change and adjustment over time is necessary to respond to changing economic realities. When economic realities change, some rules of the game turn out to be inefficient. However, established interests, the wish to avoid political conflict and the fact that the effectiveness of new institutions is not yet proven, cause institutional lock-ins to occur. A sense of urgency is needed to achieve institutional change, before the lock-ins and path-dependent behaviour lead to a performance crisis of the institutional system (Visser and Hemereijck 1998). Institutional change might follow rough paths of adjustment and learning. According to Hall (1993) this learning process is a process of ‘puzzling’ and ‘powering’ new institutions for the actors in charge. Institutional learning can contribute to the quality of institutional arrangements, along with social and cognitive learning. They might even enhance the competitiveness of the entire city-region in the end.

### 1.3 Research questions and frame of analysis

The aim of this book is twofold. It wishes to provide insight in both the economic and spatial dynamics of centre development in city-regions as well as in the institutional frameworks in which specific urban projects such as airport area development takes place. Furthermore, the book explores the possibilities of learning within and between the case study city-regions. The ambition is therefore to cross the border of planning disciplines.<sup>4</sup> It is a generalist study that includes economic geography, transportation planning and real estate, aviation economics, sociology, and institutional analysis of planning processes. In the analysis the focus is on actors and on their behaviour, as their position and playing field is considered essential (cf. Wissink *et.al.* 2003). All generalist studies must find the right balance between breadth and depth. In an attempt to find this balance, every field of study in this book includes a theoretical framework, followed by empirical findings, and is discussed with professionals in the field of study. Lastly, the selected case studies are studied in depth and for a longer period of time. Therefore, research in the case study city-regions itself is considered essential.

Against the background of spatial economic dynamics and institutional frameworks of the area development process of a specific kind of cityport, the research question is:

*What are the spatial-economic and institutional positions of airports as cityports in the city-region, and if necessary, which institutional changes are required to adjust to the changed spatial-economic realities?*

This main research questions actually consists of three related research questions. In order to answer them, each of these questions requires a step-by-step approach of answering sub-questions. The text below describes how the research questions will be answered.

- i. What is the spatial-economic position of the airport as a cityport in the city-region?
- ia. *What is the economic performance and regional embeddedness of the city-regions, and to what extent does this match the development of globalizing city-region (chapter 2)?*
- ib. *Which cityports can be distinguished inside the city-region, and to what extent do these cityports contribute to the economic development of the city-region (chapter 3)?*
- ic. *What is the spatial-economic position of airports as a type of cityport in the city-region (chapter 4)?*

Research question i is the spatial-economic analysis and it constitutes part one of this book. Answering this first research question requires, that we compare city-regions in terms of their strong and weak regional performances and the regional investment climate to establish their regional competitiveness. The regional economic analysis explores developments in past, present and future based on economic indicators on the regional and local levels. Therefore we elaborate on regional benchmark studies, that go beyond the quantitative economic indicators (labour productivity, sector structure, employment, and real estate). They discuss the reasons behind current developments and changing trends. The qualitative analysis is complemented by interview and literature study. In total, this approach offers the context, position and power of the regional economy that aims to bridge the regional level to the cityport level.

Next, the focus shifts on a lower spatial scale: the level of the cityports, in particular airport areas. The presumption is that a number of locations function as 'portal' to the city-region and so contribute to the development of the entire city-region. In order to answer research question ib, we need to explore the patterns and fixation points of economic activities within the city-region, the cityports. The variety of geographical patterns will lead a further categorization of cityports. Here, we can challenge and elaborate further on Hall's categorization of traditional and new business centres, edge cities, and specialised subcentres (Hall 2001). This approach will result in an overview of cityports and of the position of the airport area in the city-region. In addition to the qualitative categorization of cityports, a quantitative analysis might provide further insight in the cityports in the city-regions. This quantitative analysis is based on Bertolini's node-place model (Bertolini 2000, 2005), which provides the infrastructure and urban dimensions of the cityport. The infrastructure dimension is expressed by node value (number of connections and directions of transportation). The urban dimension is expressed by the place value (number of inhabitants and jobs) in the cityports. The economic dimension of the cityports -was not included in Bertolini's model. However, in this dissertation, it is considered as a quintessential element of the cityport model, as it generates activities at the cityports. In addition to Bertolini's model, economic productivity indicators therefore express the economic dimension of cityports.

The overview of cityports in the city-region allows question ic to be answered. This question addresses the spatial and economic position of the airport as a cityport in the city-region. The economic performance and urban development, as well as infrastructure connection of the airport in the context of other types of cityports is provided. Additionally, it is beneficial to compare the spatial-economic position of the peculiar type of cityports between different city-regions, rather than considering the airport as a cityport in one city-region.

2. What is the institutional position of the airport as a cityport in the city-region?
  - 2a. *Who are the strategic actors for the formation of spatial development coalitions in airport areas as cityports in the city-region (chapter 6)?*
  - 2b. *Which socio-cultural, financial, economic, governance, and legal institutions determine the playing field for the actors involved (chapter 5-9)?*
  - 2c. *If so, where do inefficient institutions, path-dependent behaviour, and institutional lock-ins create obstacles in the spatial-economic development of airports as cityports (chapter 5-9)?*

The second part of the book includes the institutional dynamics of airports as cityports in the city-region. Research question 2 discusses the institutional position; it answers the question how actors, given their institutional contexts, create developing coalitions for the airports as cityports, and thereby contribute to the competitiveness of the city-region. A wide variety of actors are involved in this process of area development. For a further actor-oriented institutional analysis, introduced in chapter 5, we need to frame the actors first (Scharpf 1997). Strategic actors are framed by their instruments, power and positions in the institutional arena or playing field. This dissertation distinguishes between national, regional and local governments, asset managers, project developers and real estate investors, end users, and advisory actors with and without a relevant interest. There is a struggle for power and a conflict of interest between these actors. Furthermore, their interests in the development coalitions overlap. The way in which the involved actors think and act is analysed by interviews in chapters 6 to 9.

This thinking and acting on how to develop the city-region, the position of cityports and in particular the development of airport areas takes place within the given institutional contexts, which needs further analysis. As discussed in section 1.2, institutional analysis includes both formal and informal institutions. Rules of the political-bureaucratic, economic and policy regimes can be found on the first level, where institutions are mainly modes of organisation. On the second level and deeper rooted, are established values and norms. These informal institutions are expressed by the way of thinking of actors, in common practises and value systems. Both levels of institutional analysis will be applied to five distinguished groups of institutions: economic, financial, governance, legal and social-cultural institutions. The analysis of various groups of institutions and institutional arrangements of question 2b provide direct insight in the problematic areas of the institutional arrangements, and will therefore be discussed jointly.

3. If necessary, which institutional changes are required to adjust to the changed spatial-economic realities (chapter 10)?
  - 3a. *What institutional learning takes place within the case studies?*
  - 3b. *What institutional learning experiences can be projected between the case studies?*

Insight in the institutional frameworks of question 2, leads to the question where institutional change is required to respond to the changed spatial-economic realities. Dijkink *et.al.* (1991) consider this institutional reflection as the third level of institutions. The central issue of debate is in which manner and to what extent institutions are reproduced or adjusted. It provides insight into the learning capacity of the institutional arrangements in the city-region.

Hassink and Lagendijk (2001) introduced institutional learning into economic geography. They distinguish learning within the region (intra-regional learning) from learning between regions (inter-regional learning). Both ways of institutional learning can contribute to the

institutional and economic competitiveness of the city-regions. The importance of interregional institutional learning increases in a more and more connected world of city-regions, in which every region develops its own set of institutional arrangements. Therefore, intraregional learning remains important. Foreign examples of institutional learning can contribute to reflection on the own institutional problems and enhance the self-correcting ability of institutional systems. Furthermore, they can also introduce alternative models for the current institutional arrangements. The distinction between learning within the city-region and learning between city-regions will also be applied in answering the third research question.

The frame of analysis in Figure 1.1 illustrates schematically how the research questions and sub-questions will be answered.

Part I (chapters 2, 3 and 4) of this thesis discusses the spatial-economic position and refers to research question 1. Part 2 (chapters 5-9) includes the institutional analysis. Firstly, chapter 5 is a theoretical introduction of actor-oriented institutional analysis. Then, chapters 6-9 address research question 2 empirically. Research question 3 is combined with the conclusions for the spatial-economic and institutional parts (I and II) that are drawn in chapter 10.

#### 1.4 Methodology and case study selection

The most important tools for analysis of the problem statement are quantitative and qualitative case study research. This research consists of two parts: spatial-economic analysis and institutional

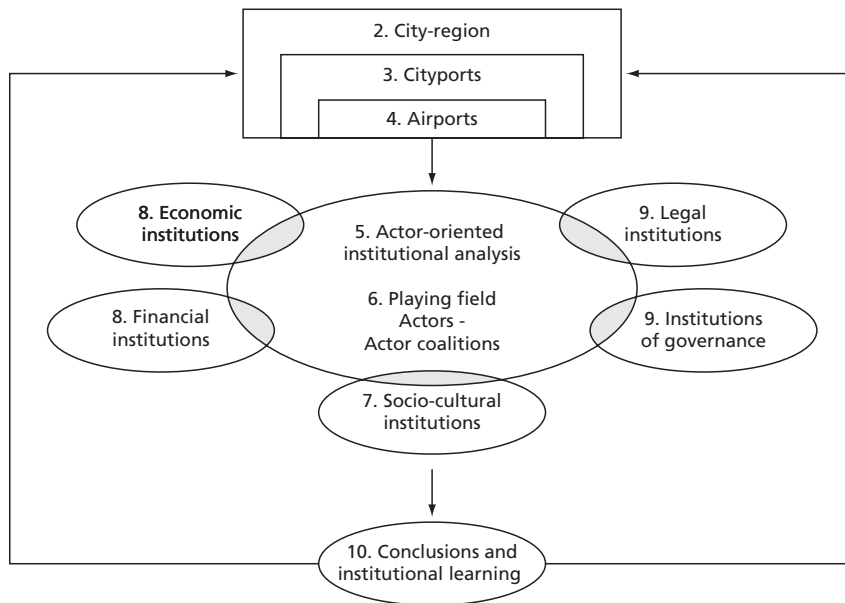


Figure 1.1 Frame of analysis

analysis. The first part of this book is mainly based on data collection, additional interviews and further categorization to establish a spatial-economic picture of the airport as a cityport in the city-region. Indicators of economic development, urbanisation, mobility and tendencies on the real estate market are included in this first part in a benchmark analysis. However, as quantitative sources offer only a limited perspective on current spatial-economic trends, additional interviews were held to discuss these issues.

Qualitative research is particularly useful when phenomena are difficult to separate from their surroundings, or when in-depth understanding is required, or, finally, when research has an explorative nature. The second part of this dissertation is qualitative research based both on document analysis and on open, in-depth interviews with the involved actors. These interviews provide useful and up-to-date information on actors and institutions that cannot be gathered by document analysis or data collection. Furthermore, the interviews function as a check on the picture raised by the benchmark's data collection.

At the start of the research period, interest in mixed land use and cityport development resulted as well as airport development resulted in co-written publications (resp. Majoor, Uffen and Van Wijk 2001; Majoor, De Munck and Van Wijk 2001). In order improve skills in institutional analysis and explore spatial economic developments in the region, pilot case studies are conducted in Amsterdam-Zuidoost (Van Wijk 2003) and Amsterdam-Zuidas (Rotimex and Kolpron 2001), specific kinds of cityport that, with Schiphol, join the Northern Wing of the Randstad. Then, research in each of the case studies led to detailed case study reports (Van Wijk 2004, 2005a, 2005b) resulting in conference papers open to local feed-back (Majoor and Van Wijk 2002, Van Wijk 2003a, 2005).

While case study research offers the possibility of connecting different sources (documents, interviews and data) for analysis, this type of research also tends to set each case apart. The so-called *n-problem* is the result of too many variables for a too limited number of cases. The *n-problem* thus makes it difficult to draw general conclusions for the research. Scharpf argues that increasing the number of case studies is not the solution to this problem, because of the regional specific characteristics that are involved (Scharpf 2000). It is therefore essential to find a way of dealing with the complexity of the causal constellations that lie underneath. Focussing on a limited number of variables while other variables are constant can do this. Scharpf's approach in *Crisis and Choice in European Social Democracy* (1991) is pragmatic, where four countries are faced with the similar type of problem in the same era, but with a different approach: diverse responses to common challenges.

The line of reasoning of 'diverse responses to common challenges' is continued in this book. The challenges are common for the case studies: airports all over the world show a rapid pattern of development due to increased international networks and to changing travel behaviour. The airport is, when considered in relation to other cityports, one of the gateways to the city-region. While the challenges for airports as cityports is similar for the airports, the results of airport development and the degree of spin-off for the wider airport region vary. The differences in results are related to the diverse responses the strategic actors' institutional arrangements in the city-region employ to make use of the airport area potential and of new economic realities. This diverse response in developing the airport as a cityport thus contributes to a certain extent to the competitiveness of the entire city-region in the end.

The chosen cases are studied on two levels of analysis: the regional and the local level. A numerous amount of recent studies shows that the awareness is growing that the regional level is the level where socio-economic patterns and institutional problems are predominant (Scott *ed.* 2001, Simmonds and Hack *eds.* 2000). Especially large-scale projects such as airports cannot be considered in isolation from the regional context. On the other hand insight on the local development and local institutional problems of the airport itself is also considered quintessential in order to frame other stakeholders interests that are not represented on the local level. They include amongst others airport authorities as end users, real estate developers and asset managers.

As there is not much time to conduct both spatial-economic and institutional analysis, this book focuses on three case studies of city-regions and their international airports. The criteria set for the selecting case studies are that the cases share the following characteristics:

1. OECD-economies with (in particular) economic dynamics in the city-region that attracts urban development;
2. Polycentric city-regions, with a variety of cityports;
3. Large and international airports;
4. A variety in coordinated market economy responses to these common challenges

Randstad-Schiphol, Frankfurt Rhein-Main and Tokyo-Haneda/Narita fit into these selection criteria.<sup>5</sup> The first case study is Amsterdam Airport Schiphol (AMS) in the Randstad city-region, in the western part of the Netherlands. This case is worth further study for a variety of reasons. Firstly, the Randstad aims to develop into an integrated city-region (Deltametropolis), despite the higher speed of development of the North Wing of the Randstad (Amsterdam, Almere, Utrecht) compared to the South Wing of the Randstad (Rotterdam and Den Haag). In addition, Schiphol airport is as the single large international airport seen as one of the key-drivers of the national economy (mainport) that shows a rapid economic development and spin-off in the 1980s and 1990s. Schiphol is located in the geographical heart of the polycentric Randstad city-region between Amsterdam, Rotterdam, Den Haag and Utrecht.

The second selected case study is Frankfurt International Airport (FRA) in the Frankfurt Rhein-Main city-region in central Germany. Its two major rivers Rhein and Main identify the region that includes Frankfurt International Airport. Despite its name, the region is polycentric, and has the airport in the geographical heart of the region. Frankfurt, Wiesbaden, Mainz, Darmstadt and Offenbach am Main are the major cities in this region. Since the Second World War, Frankfurt Rhein-Main is one of the most dynamic economic regions of Germany. Frankfurt's airport is Germany's largest international hub. It competes and cooperates with the new international airport of München, which is Germany's second largest airport. Although there are similarities in culture and economy between Germany and the Netherlands, the response to the common challenges in federal Frankfurt Rhein-main is quintessentially different from the Netherlands' unitary state model.

The third selected case study is Tokyo Metropolitan Area, which contains Asia's largest airport Haneda and Japan's largest international airport at Narita. Due to its rapid economic development in the post-war times, Tokyo has developed in a polycentric way, with urban concentrations near major railway stations. Tokyo International Airport at Haneda (HND) is

located in the Bay of Tokyo on the border of Tokyo prefecture, near Kawasaki and Yokohama in Kanagawa prefecture. Narita International Airport (NRT) is located in the east of the city-region in the city of Narita, Chiba prefecture. The fourth prefecture that is part of the Tokyo Metropolitan Area is Saitama, north of Tokyo. The difference between Tokyo Metropolitan Area and the European cases is not so much related to the actual difference in spatial scale for the common challenge, but is found in the unique Japanese institutional model. This model is however still a model of coordinated market economies, and it is worth further study (Hall and Soskice 2001). Because this model is also involved elsewhere in Japan, it is also rewarding to take a look at recently constructed airports in the Bays of Osaka (Kansai International Airport, KIX) and Nagoya (Chubu International Airports, CIA), which provides insight in the institutional change and learning process (cf. Van Wijk 2006, 2006a).

### 1.5 Randstad, Frankfurt Rhein-Main, and Tokyo Metropolitan Area

The considerations for the case study selection have been discussed before. Here, the case studies will be introduced in brief. The economic and urban development will be discussed in detail in the following chapters 2 and 3.

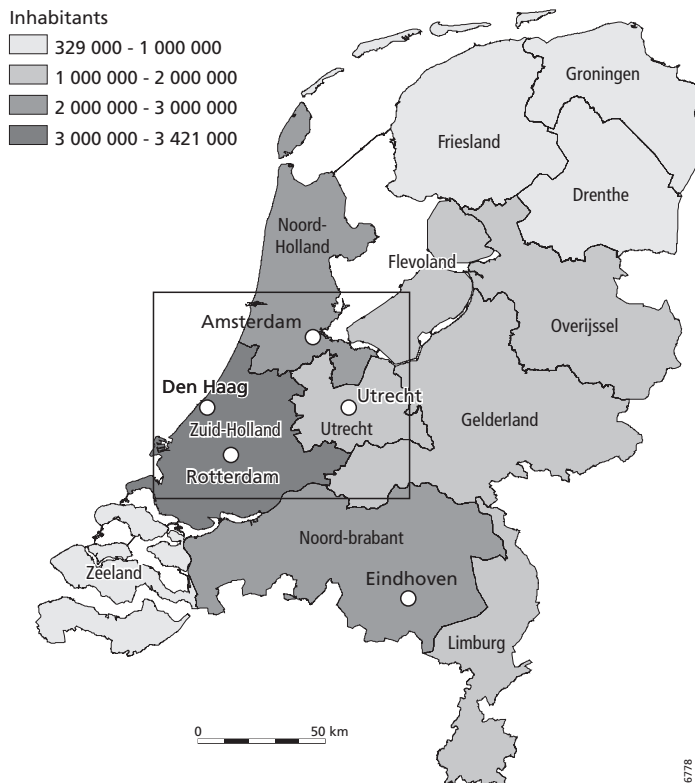


Figure 1.2 Inhabitants of Netherlands' provinces and location of Randstad (2003)



### *Randstad*

The Randstad, literally meaning edge city, is a ring of medium-sized towns and cities in the western part of the Netherlands. Over 6.5 million inhabitants on circa 9,500 square kilometres inhabit this city-region, and it is located in the delta of Rhine and Meuse rivers (Figure 1.2). The city-region has a poly-nuclear urban morphology surrounding the inner Green Heart area (Figure 1.3). This poly-nuclear structure dates back from times when parts of the Randstad area was due its location under sea level affected by regular floods, and became dry soil after waterworks were development.

The Randstad city-region covers the provinces of Zuid-Holland and Utrecht as well as the southern parts of the provinces Noord-Holland and Flevoland. The main cities are Amsterdam (735.000 inhabitants in 2003), Rotterdam (600.000), The Hague (365.000) and Utrecht (245.000). These major four are surrounded both by medium-sized towns and villages such as the recent growth centres Almere and Amersfoort, as well as by the older merchant towns of Leiden, Delft and Haarlem (see Figure 1.3).

These cities developed rapidly in the 17th century Golden Age together with the main four cities. Amsterdam airport Schiphol and the harbour of Rotterdam are referred to as cores of national economic development. Utrecht, a city of national importance, is strategically located in the geographical centre of the Netherlands. Utrecht was, in contrast to the other cities, as one of the first cities founded in the Roman era. The Hague is the residence of the national government, while Amsterdam is the capital of the Netherlands. Finally, the regions Leiden-Bollenstreek, Aalsmeer and Delft-Westland are clusters of flower trade and horticulture.

The Netherlands, in particular the Randstad and the corridors towards Germany and Belgium in Brabant and Gelderland, enjoyed an economic booming period in the 1990s, after the

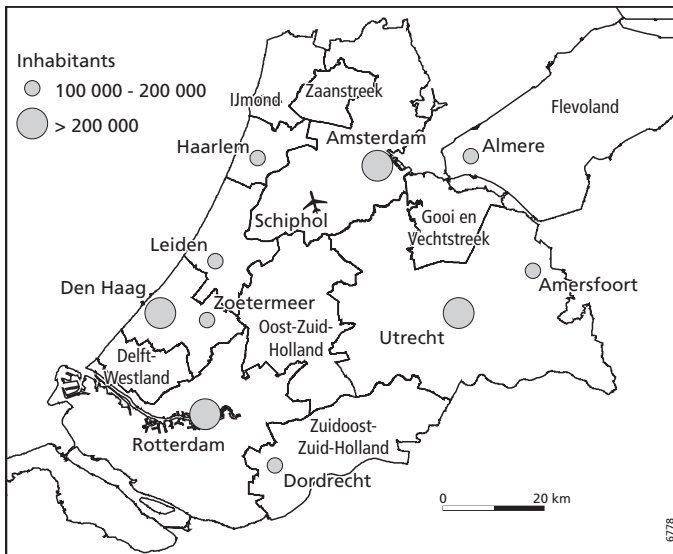


Figure 1.3 Airport and major cities in the Randstad

economic problems in the 1970s and 1980s. The economic growth period resulted in a fast further urbanization and network formation of the Randstad area, as can be seen in Figure 1.2. This development makes it increasingly difficult to set the Randstad city-region apart from the surrounding urban fabric. At the turn of century, economic growth slowed down and a sudden economic recession occurred.

#### Frankfurt Rhein-Main

Frankfurt am Main is located in the geographical and economical heart of Germany. It is, after the major four metropolises Berlin, München, Hamburg and Köln the fifth largest city in Germany with its population of 641.000 in 2001 (Figure 1.4). Frankfurt is located in the densely populated southern part of the state Hessen in the region bordering the states Rheinland-Pfalz and Bayern. Frankfurt Rhein-Main refers to the crossroads of the river Main flowing into the river Rhine, in German tradition giving the region her name. A second important geographical characteristic is the presence of the Taunus Mountains in the northwestern side of the region.

Frankfurt Rhein-Main resembles the Randstad best in terms of polycentric structure (see Figure 1.5), population (5.3 million), surface (13.400 square kilometre) and economy. Frankfurt am Main was founded even before the Roman Empire and had the status of duchy, *Reichsstadt*, in the German empire and later became independent *Reichsfreie Stadt*. The traditional merchant city

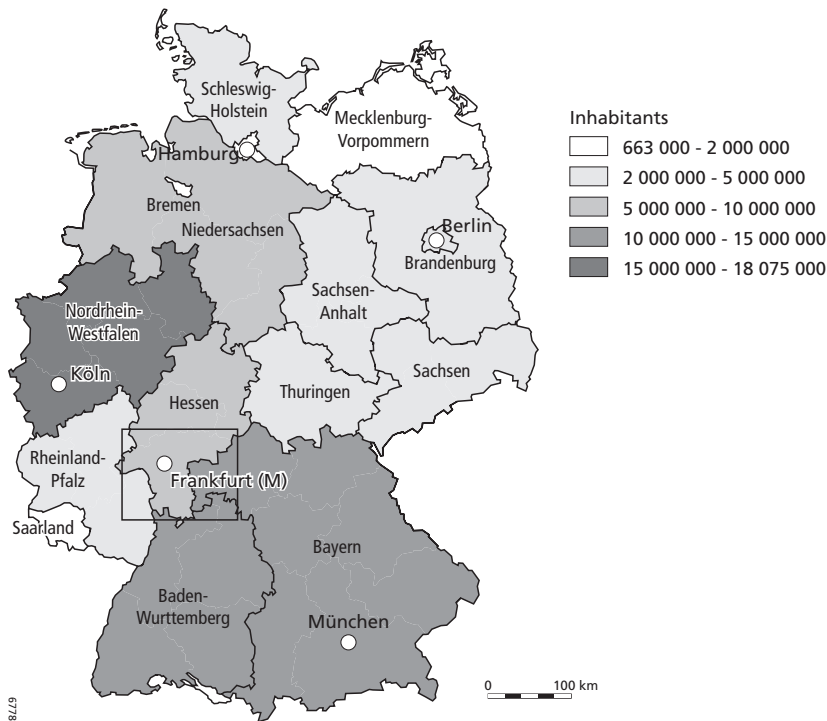


Figure 1.4 Inhabitants of Germany's states and location of Frankfurt Rhein-Main (2001)

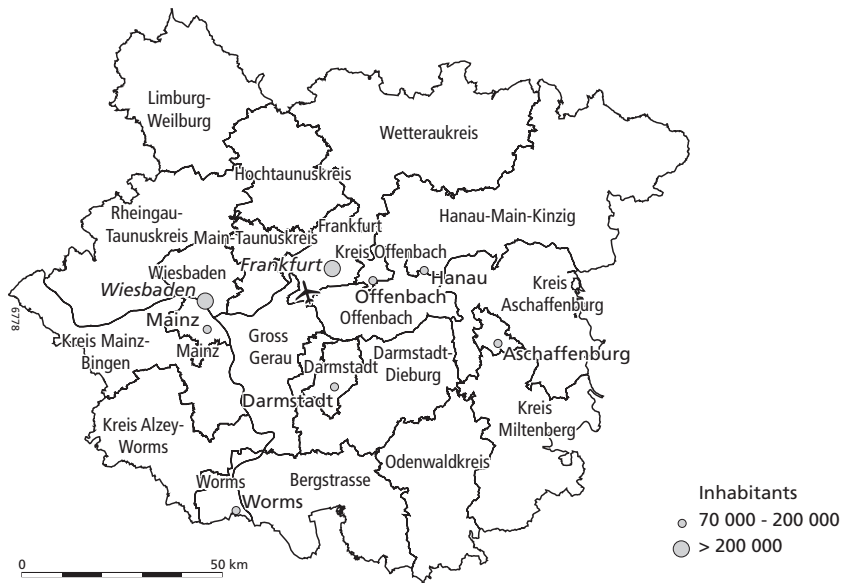


Figure 1.5 Airport and major cities in Frankfurt Rhein-Main

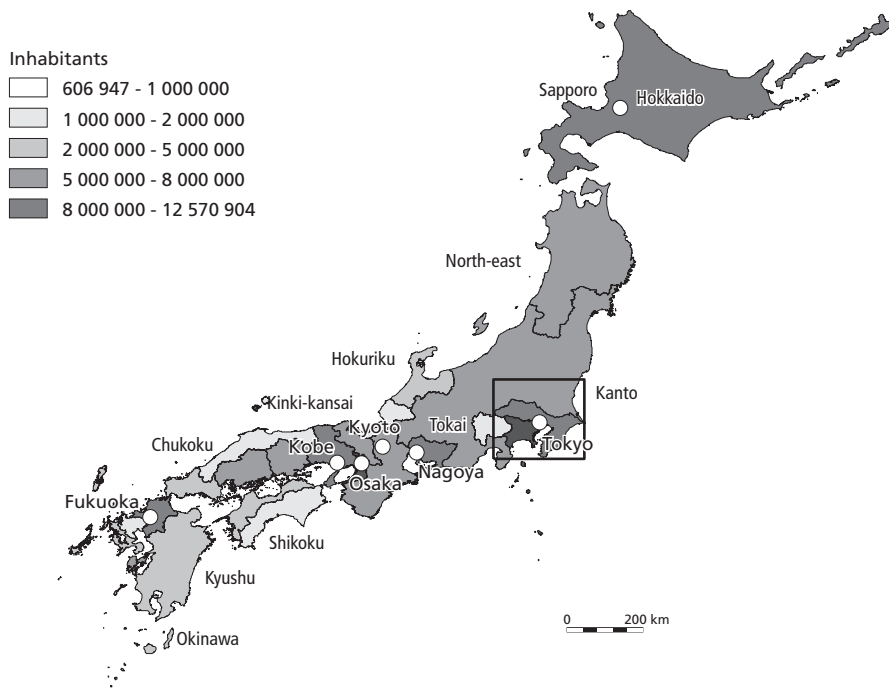
Frankfurt is strategically located at the Main river (Wiesbaden, Mainz, Frankfurt), a tributary river of the Rhine.

Frankfurt is the main centre of Rhein-Main in geography, population and economy (banking, trading and airport). It is surrounded by Hessen state capital Wiesbaden (271.000 inhabitants), regional administrative capital and science city Darmstadt (138.000), manufacturing city Offenbach am Main (118.000) and Hanau. Though the borders of the region are subject of debate, the common spatial-economic unit includes the parts of other German states: media city Mainz (185.000) and Worms (81.000) in Rheinland-Pfalz, and fashion manufacturing in Aschaffenburg in Bayern (70.000). The cities are interrelated and connected to the smaller *Kreisen*, the counties of towns and villages.

#### *Tokyo Metropolitan Area*

Japan's urban areas of Kanto (including Tokyo), Kansai (Osaka, Kobe) and Chubu (Nagoya) are concentrated in central Japan on the largest island Honshu (Figure 1.6). Tokyo was founded in 1457 as the village Edo, but started to grow only from the 17th century onwards, when the military 'Shogun' Tokugawa came in power and created the foundations of the modern Japanese society. Since the era of the Meji restoration (1868-1912), Edo is called 'Eastern Capital' or Tokyo in Japanese, and it has grown rapidly and constantly, becoming the world's largest metropolitan area (Sorensen 2002).

The Kanto-area of 41,6 million Japanese is defined as National Capital Region, a cooperation of public authorities that was set up to deal with the problems of concentration in the Tokyo region. It includes Kanagawa, Chiba, Saitama, Tokyo, Ibaraki, Yamanashi, Gunma, and Tochigi.



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Figure 1.6 Inhabitants of Japan's prefectures and location of Tokyo Metropolitan Area (2005)<sup>6</sup>



Figure 1.7 Airports and major cities in Tokyo Metropolitan Area

The most central prefectures are Kanagawa, Saitama, Chiba and Tokyo, and they are referred to as the Greater Tokyo Metropolitan Area (TMA, Figure 1.7). This area contains 33 million inhabitants, over one quarter of the total population of Japan. The main cities in manufacturing and R&D-based prefecture Kanagawa are Yokohama (3.2 million inhabitants) and Kawasaki (1.3 million). Other major cities are Chiba (1 million) in Chiba prefecture dominant focus is on logistics and agriculture. Saitama City is the merger of Urawa and Omiya in Saitama prefecture, with over one million inhabitants. The headquarters of financial, business and service sector and the political-bureaucratic complex are concentrated in the dominant city of Tokyo (12 million).

With a size of 13,550 square kilometres, Tokyo Metropolitan Area is larger than Frankfurt Rhein-Main and Randstad, but in particular more densely populated and urbanised. The urban field of 33 million inhabitants forces to multiple regional centres and these are the reasons why Tokyo cannot be seen as a mono-centric urban area called 'Tokyo', Rather, the case of Tokyo must be approached on multiple levels of spatial scales. The Tokyo Metropolitan Government is the governmental body for the ward area (*ku*), Tama district area (*shi*), countryside villages (*gun*), and the islands (*shima*).

## Notes

- 1 See for a detailed discussion on globalisation of city-regions: Sassen (1991), Castells (2000), Storper (1997), and Scott (2001).
- 2 The notion of the role as a port, place and node is drawn from Hartwing (2000); see chapter 4.
- 3 'Institutions' and 'rules of the game' that set the size of the actor's playing field are based on this definition in the remainder of the book. They are used interchangeably.
- 4 This research is therefore part of the Habiforum research program 'institutional conditions for optimal land use', with the focus on regional economic development, which completes other PhD studies on institutional conditions for land use in large urban projects, infrastructure and environment (Salet and De Jong 2000).
- 5 The names Amsterdam Airport Schiphol and Schiphol, Frankfurt am Main and Frankfurt, Tokyo and Tokyo Metropolitan Area will be used interchangeably in this book, except for the cases when the different context or meaning is made clear. Furthermore, the names Frankfurt, Narita and Haneda in combination Schiphol refer to the airports of respectively Frankfurt International Airport (FRA), Narita International Airport (NRT), and Tokyo International Airport at Haneda (HND).
- 6 Note that the number of inhabitants in Hokkaido is traditionally misleading as the northern island is only one prefecture out of 47.



## 2 Competitiveness of city-regions

### 2.1 Introduction

The notion of competitiveness of city-regions has dominated economic geographers' debates in the 1990s and 2000s. The discussion on regional competitiveness in general brought back the relevance of geographers into economic science. It became not only subject of intensive academic discussion following Porter's *The Competitive Advantage of Nations* (1990), it also is increasingly used as a policy tool. This chapter discusses both effects: first, a brief theoretical overview on the current insights on the importance of competitiveness for city-regions (2.2), followed by the discussion of competitiveness as a policy tool and benchmark consequences (2.3). In paragraph 2.2, the competitiveness of firms and industries is discussed, with a highlight on the economy of firms and inter-firm relations. It is obvious that these firms compete and cooperate on the inter-firm level, but the question is posed whether this competition and complementarities can also be found on the level of the city-region itself.

The theoretical discussion is followed by empirical research based on benchmarks. These benchmarks are applied to case studies in the Randstad in 2.4, the Frankfurt Rhein-Main in 2.5, and the Tokyo Metropolitan Area in 2.6. In these paragraphs, the discussion will focus on past and present economic performance. The goal is not to analyse and include all economic trends in the city-regions, but to outline the city-region's development trends over a longer period of time. To understand the strengths and weaknesses of the city-region for the future, the investment climate for future investments of the areas mentioned above is examined in paragraph 2.7.

One of the crucial issues of future competitiveness of these globalising city-regions is the city-region's response to integration and developing strategic projects, discussed in chapter 2.8. These benchmarks will answer research question 1a, which deals with the economic performance and regional embeddedness of the city-regions and the extent that this fits to the development of a globalising city-region. This is the first stage of assessing the spatial-economic position of airports as cityports in the city-region. The conclusion to this question can be found in paragraph 2.9.

### 2.2 Competitiveness of city-regions

In this section we will discuss briefly how firms and industries become competitive in the globalising economy, and how this relates to the competitiveness of city-region. First, however, we need to define competitiveness itself. There is no consensus over the exact meaning, despite the general acceptance of the importance of competitiveness (Boschma 2004). Porter (2001) mainly emphasises the importance of productivity growth as a key element of competitiveness.<sup>1</sup> Here we understand competitiveness of places with Storper as:

“...the ability of an (urban) economy to attract and maintain firms with stable or rising market shares in an activity while maintaining or increasing standards of living for those who participate in it.” (Storper 1997:20).

Globalisation needs a regionalisation counterpart in order to become locally embedded.<sup>2</sup> This was widely discussed in economic geography literature in the 1980s and 1990s. Piore and Sabel (1984) explored the new trends in the organisation of production and the behaviour of enterprises. However, in the era of new technologies and more foot-loose production, Peter A. Hall and David Soskice (2001) found that they overestimated the importance of governments and labour unions as institutional embeddedness. Scott (1986) and Storper (1997) therefore focussed more on the real economy and found that the urban agglomeration itself is an endogenous source of economic dynamics. The agglomeration can be attractive due to its economies of scale based on a critical mass, and economies of scope based on diversity and specialisation. Krugman and Porter explained the attractiveness of the agglomeration, but could not explain exactly what the necessary conditions for agglomeration of production activities are (Storper 1997). Storper (*ibid.*) developed a theory where the relational assets between enterprises and the regional embeddedness are considered crucial for actors in the global economy.<sup>3</sup>

Storper's model fits to the current academic insights of evolutionary economics.<sup>4</sup> Behaviour of actors is there seen as embedded in regional structures, and changes gradually over time. Actors themselves have an evolutionary impact on the structures in the longer term (Nelson and Winter 1982). New developments and new technologies are therein not always perceived as new methods of production and the common routines guide the current decisions, a phenomenon that is called path dependency and is crucial in evolutionary economics (Lambooy and Boschma (2001). Despite path dependencies, actors have a role to play and increasingly firms are considered as co-determining the selection process, in order to generate increasing returns. The competitiveness of the firms in a globalising economy is therefore a combination of intra-organizational resources (as routines and competences) and extra-organizational assets (as complementary knowledge and relational capital) (Boschma 2004).

Similar to Ricardo's theory on comparative advantages, there is no rat-race of competing city-regions, but the variety of models can stimulate several city-regions to benefit and specialise: the comparative advantage of city-regions. The awareness has grown that there is no single or best model for the city-regions to create an institutional embeddedness, but a variety of models co-exist (Simmonds and Hack 2001, Salet *et.al.* 2003).

Hall and Soskice (2001) found that the different developed economies show a remarkably similar result in economic performance in the last decades for both liberal market economies such as in the US, UK, and Australia, and for coordinated market economies of Germany, the Netherlands, and Japan, with striking differences in economic sector development. Differences in institutional structures favour particular kinds of sector development.<sup>5</sup> The bottom-line for the coordinated market economies is that the institutional setting favours cooperation between sectors and governments, and offers for specific sectors a specific regional embeddedness. With that conclusion, Hall and Soskice (2001) answer the question left open by Storper (1997): not how, but why particular regions such as Baden-Württemberg and Silicon Valley could become economically successful in specific sectors in the 1990s.<sup>6</sup>



### *The metropolitan economy*

Initially, global cities like London and New York, and industrial districts like Silicon Valley and Third Italy benefit from these economic shifts. Recent studies focus on a greater variety of levels and shapes, including globalising city-regions on the lower spatial scale (Hall 2001). The main idea behind this is that regional cities have chances and the potential to be connected to the globalising economy as well, particularly when they have the ambition to become a metropolitan economy. In this section, the affected city-regions by network formation and international relations are discussed. To better understand structural changes, a closer look is taken at the characteristics of the metropolitan economies in the latter part of the section.

The growth of the economic potential of the city-region is not only based on productivity growth, but also on the creation of new activities. Lambooy and Boschma (2001) argue that successful metropolitan economies such as London and Paris consistently are able to reinvent themselves due to a variety in the production structure, where other regions such as Walloon and Ruhr are stuck in a single economic speciality with a path-dependent mindset for many years. Kleyn and Tordoir (2002) conclude that the more successful metropolitan economies are able to continue expanding their markets and create new economic activities.

Kleyn and Tordoir (2002:19) emphasize the importance of three strategic clusters for creating a metropolitan economy: distribution, management functions, and creativity. Distribution services give access to the market, and the basics of market size increase. All metropolitan economies have a relatively large share on distribution and the market forces these firms to be competitive. This contributes to what we call here the further integration of the metropolitan economy. Second, the ability to manage transaction costs by creating a more efficient organisation of production is crucial for the metropolitan economy. The managers of the international corporations require and attract supply of strategic management, financial and legal services, consulting and other specialised economic activities in the city-region. Third, creativity is a strategic sector, not only in the artistic sense, but also R&D and entrepreneurship: labour that is concentrated in the metropolitan areas. These three clusters of activities are the pillars for a further diversification and productivity growth of the metropolitan economy.

These economic structure shifts have consequences for the production environment. The increased importance of knowledge makes human capital the leading factor for businesses. Business will follow high potential labour forces instead of the other way around. Crucial location decisions of firms in the global economy favour well-accessible locations with spatial qualities where a pool of high potential labour forces are available, factors that favour metropolitan areas. Due to decreasing transportation costs, metropolisation of the poly-nuclear structure of the city-region can take place in the Randstad and Flemish Diamond, as did mononuclear urbanisation in cities such as London and Paris in the 20th century. The importance of infrastructure in the city-region, with the development of urban networks, is therefore increasing. Infrastructure can be seen as generating and structuring spatial developments (WRR 1998). Nevertheless, in the end, not the infrastructure itself, but the real estate investments near infrastructure caused by the relations between businesses are the important generators of economic development (Schrijnen 2000).

### 2.3 Regional acting and benchmarking

The previous paragraph provided a general insight in competitiveness of globalising city-regions with her main characteristics, as subject of academic debate. Competitiveness is not merely used to analyse city-regions, it is increasingly used as a policy tool as well. What can the strategic actors do to improve the city-region's competitiveness? In answering this question we are faced with institutional adaptation, the city-region as one actor and the difficulties of predicting future developments.

In terms of evolutionary economics, the region has an important role to play in the innovation process, as an incentive and selection device, where accumulation and reproduction of knowledge in the region lead to a variety of activities (Boschma 2004, Boschma and Kloosterman 2005). This variety plus complementarities of institutions is quintessential for the competitiveness of the city-region. There is no superior or optimal institutional model that leads to greater successes, but on the other hand it is not to deny that some institutional models are better than others. In particular institutional arrangements that are part of a continuous adaptation process of institutions are determining the success of the region; history shows that some regions are more capable of dealing with this process of creative destruction than other regions. Therefore, we have to focus on the institutional dynamics within the city-region. The competitiveness of the city-region shows that the regions are thus becoming a meaningful and relevant entity that affects the behaviour and performance of companies.

After this understanding, the questions arises whether regions are competing with each other and if there is a zero-sum game or a positive sum game for the city-regions in this mutual competition. In this debate, economists such as Krugman argue that companies compete, not territories. Camagni (2001) challenges Krugman's view and finds evidence of regions competing on inflow of capital and other resources. John Friedmann (2001) expects city-region formation for a limited number of city-regions that are the nodes and focal points of the globalising economy, where city-regions have much to gain and nothing to lose by associating with other regions in networks. It is crucial for these regions to find an appropriate form of governance and city-regions are increasingly responsible for managing their own development.

*"Nation-states may set the institutional framework for regional development, and perhaps provide some policy parameters and financial resources for local development. But the world's major city-regions will themselves become significant actors, planning, promoting, and guiding their own development within a dynamic and continuously evolving global economy."* (Friedmann 2001:122)

Friedmann based his argument on Jane Jacob's classic work *Cities and the Wealth of Nations* (1984). The notion of city-regions as leading actors is also found in other recent studies. It is, however, not always clear what are the common and leading interests of the actors in the city-region. There is no single interest of all actors or one representative actor. To avoid this problem, it is better not to see the city-region as one actor. Nevertheless, acting of the city-region in competition with other city-regions is considered essential here. Therefore the focus is on the dominant development coalition in developing the airport as a cityport in the city-region.<sup>7</sup> The critical factor is the instrumentalisation of identity by region-builders and leaders of the development

coalition (Keating 2001). The development of successful regions is partly path-dependent, but also a continuous creation and recreation of cultures.

The process of creative destruction implies that despite path dependencies, new developments occur spontaneously in a favourable embed. Therefore, long-term developments are hard to predict. It is a rather complicated task to formulate the incentives and conditions for successful regional policy-making (Boschma 2004).

One of the tools of policy-making that has become increasingly common in the 1990s is benchmarking. Benchmarking city-regions is a way of monitoring the performance of firms and regions in order to learn from best practises. Recent studies show this is a tool of limited use; in particular learning from best practises from companies and regions with a different milieu is meaningless (*ibid.*) The best example of this is the large number of 'planned' Silicon Valleys in areas without an innovation and R&D milieu. Benchmarking European regions on competitiveness for instance, does not show the factors that are behind the success or failure of the region. Benchmarks as a policy tool show increased differences between regions, which is quite in contrast to the policy aims of backward regions catching up (Kitson *et.al.* 2004).

It is nevertheless useful to compare the structure and performance of regions and to derive general policy implications from benchmarking. It offers insight in the wide range of available development paths for city-regions, and is very useful as a learning tool when it comes to awareness and dangers of simply copying success stories. This is therefore also the ambition in the next sections. The past, present and future competitiveness of the city-regions are compared.

The following sections explore the past and present economic performance of the Randstad, Frankfurt Rhein-Main and Tokyo Metropolitan Area city-regions by benchmarking indicators such as economic structure, growth, productivity, and employment. A comparison is made in international comparative perspective, of the city-region within the own country and on the regional level. Then, chapter 2.7 provides insight on future development by analysing more subjective indicators (infrastructure, governance, and business efficiency) that determine the quality of the business environment of the case studies. The results of the analysis of this investment climate are based on benchmark studies being updated and tested by interviews in the case study city-regions. Finally, chapter 2.8 gives further insight on the future development paths of the city-region as an acting entity, with particular attention paid to the integration process into one metropolitan economy.

## **2.4 Regional economic performance of the Randstad**

The regional economic benchmark includes national factors, regional performances and investment climate. This paragraph first discusses the position of the city-region's economy in the international and national contexts and the relevance of national factors. The main reason that this is discussed is that national factors are of greater importance in the regional economic development than is often assumed and the national context is often ignored in comparing city-regions.<sup>8</sup> Next, the economic performance within the region is benchmarked. The economic performance offers an more objective and measurable insight in the current situation, in terms of inhabitants, gross domestic product on the regional level (GDP), employment levels and share of economic sectors.<sup>9</sup> Another tool of analysis singled out is the development of service

Table 2.1 Economic command functions in global city-regions<sup>10</sup>

City	Ranks						
	Population	Banks	Stocks	HQ's	Air traffic	Olympics	Rolling Stones
1 Tokyo	1	1	2	1	6	1	1
2 London		5	3	3	1		2
3 New York	5	4	1	2	5		
4 Paris		2	4	7	2	2	3
5 Frankfurt		3	5	13	3		
6 Amsterdam		12	9		7	2	
7 Seoul	4	12	5		13	1	
8 Brussels		7		17		2	3
9 München		9		9	20	1	
10 Zürich		14	7		9		

Source: Short *et al.* 1996

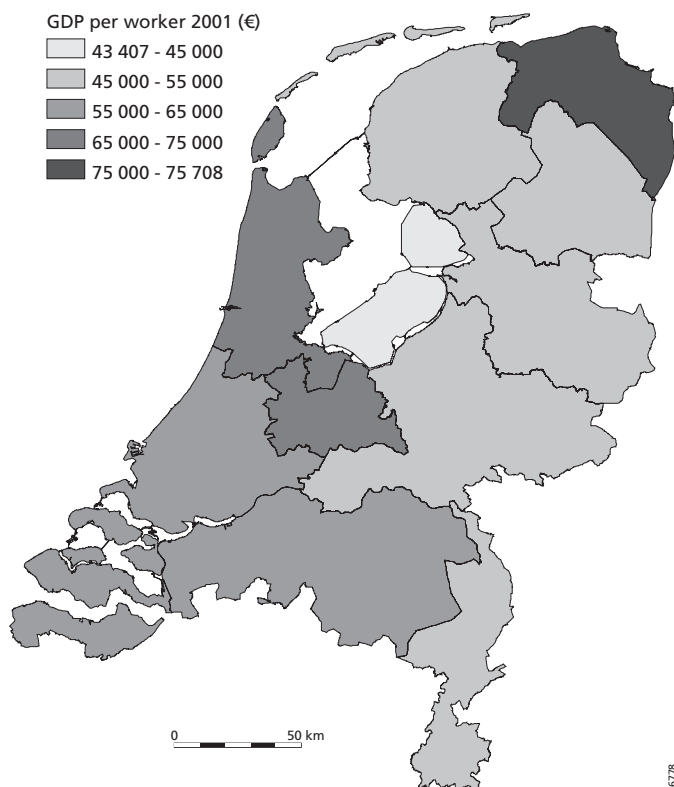


Figure 2.1 GDP per worker in Dutch provinces (Source: CBS Statline (2005))

industries, to have a rough insight in the sector structure of the regional economy. Finally, the employability of jobs per 100 citizens expresses labour participation and activity of citizens, since in international comparisons unemployment definitions are different between countries and in Germany even between the local and national level.

*Randstad, Frankfurt Rhein-Main and Tokyo in international perspective*

Most city-region studies focus mainly on the service sector's economic control function as leading industries in globalisation (Sassen 1991, Friedmann 1986, 1995). Short (*et.al.* 1996) provide a wider view on city-region development than merely economic control functions, despite its dated character (see Table 2.1).

Frankfurt and Amsterdam/Randstad are comparable in terms of position in the hierarchy of city-region, both ways behind the global city Tokyo. Table 2.1 shows the dominance of Tokyo, London and New York in terms of command functions over other global cities, particular in terms of banks, stocks and headquarters. Frankfurt and Amsterdam are part of a large middle group of globalising city-regions. Olympic games hosting and biddings and Rolling Stones rock concerts are important cultural indicators with economic importance. Tokyo scores relatively low in air traffic due to dominant domestic travel.

*The Randstad in national perspective*

After putting the case study areas in an international comparative perspective, a national and regional perspective is necessary in order to obtain further insight in the city-region's performance. The territorial definition of the Randstad is disputed, since there are no social-economic indicators that single out a specific territory. The Randstad is located in the provinces Noord-Holland, Zuid-Holland, Utrecht and Flevoland, and is the residence for almost 40% of

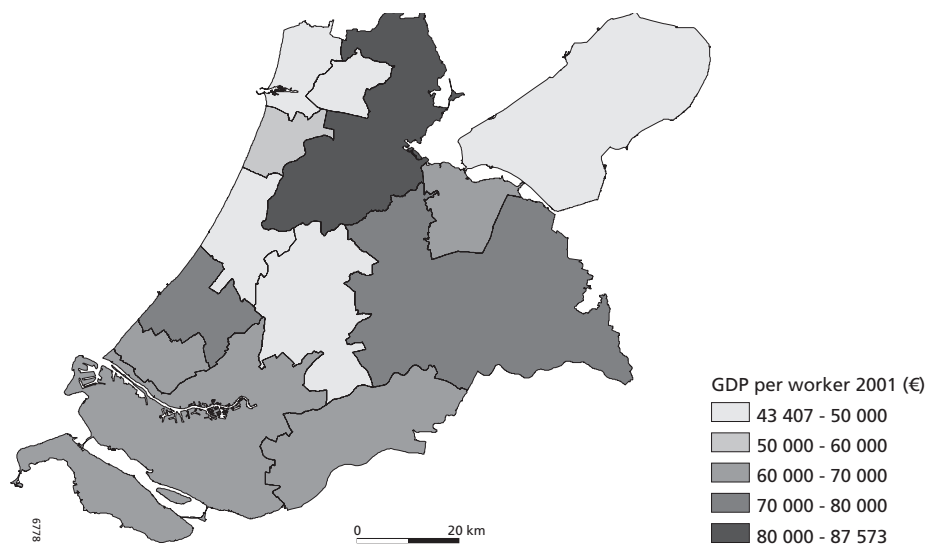


Figure 2.2 GDP per worker in the Randstad<sup>13</sup> (Source: CBS-Statline (2005))

Dutch citizens.<sup>11</sup> The Randstad city-region contributes almost half of the national income (see Figure 2.1), with productivity levels over €60,000, with the exception of the blur picture of the mainly residential region Flevoland. Provincially accounted gas revenues blur the position of Groningen in Figure 2.1.

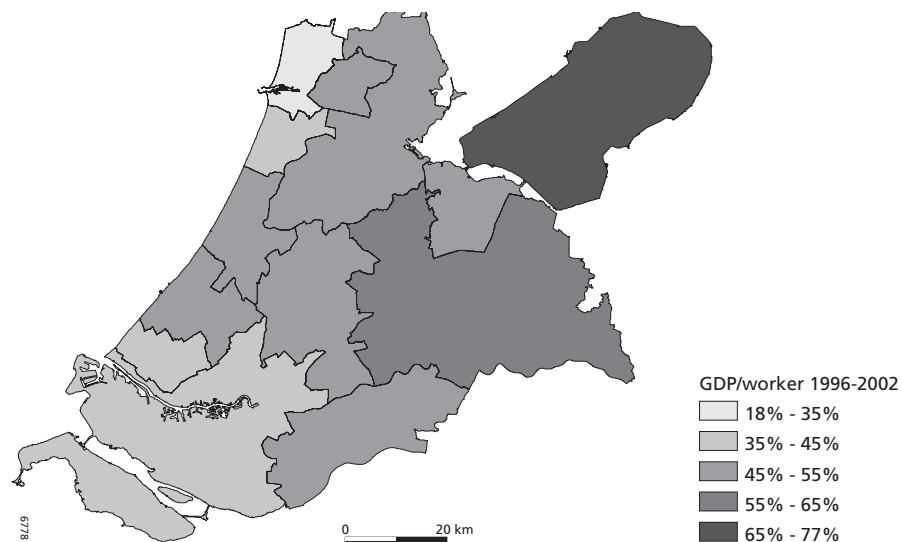


Figure 2.3 GDP growth in the Randstad (Source: CBS-Statline (2005))



Figure 2.4 Job growth in the Randstad (Source: CBS-Statline (2005))

Within the Randstad, the share of the GDP of the four main agglomerations of Amsterdam, Rotterdam, Den Haag and Utrecht increased from 31.9% to 34.1% in the 1988-1998-time period (Kleyn and Tordoir 2002), after a long period of falling behind in the 1970s and 1980s. These urban areas can catch up in terms of regional product in comparison to other European metropolitan areas. Particularly the northern wing of the Randstad, Amsterdam and Utrecht, benefits from the business service industries, and shows the highest income levels. In the period 1993-96 particularly Flevoland, southern Gelderland, southeastern Noord-Brabant and Utrecht have shown a larger growth of gross regional product than the Randstad's main cities.<sup>12</sup>

#### *The Randstad in regional perspective*

The Randstad's main cities have their own specialisation. Amsterdam is the financial and business services centre and dominant hub for air transportation, as well as the a major harbour. The greater Amsterdam includes harbours and steel mills in IJmond. This steel mills and harbour area in IJmond area has developed in terms of employment, but lacks in productivity (see Figures 2.2-2.5). The capital is the main city for headquarters of banks and multinationals and is with Gooi-Vechtstreek a major concentration of employment for media. The transportation sector dominates in Amsterdam Schiphol airport and the western harbour area. Rotterdam used to be the largest seaport in the world and is the prime transportation hub for bulk goods in Western Europe with an increasing offshore industry and a declining shipbuilding industry (Tummers and Schrijnen 2001). In recent decades, Rotterdam developed a broader economic basis with university and cultural institutes but yet with limited economic success. Den Haag is the governmental capital, the queen's residence, location of embassies and other international political institutes as the international war tribunal. This combined with the presence of national telecom and insurance companies headquarters, the economy in Den Haag has developed rapidly in the last decades, partly due to its strong focus on service sectors (*ibid.*).

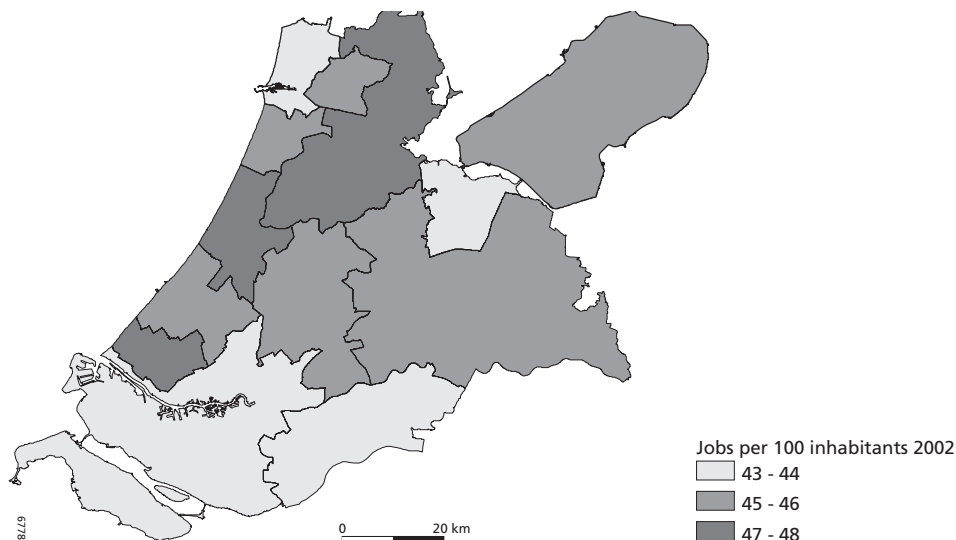


Figure 2.5 Employability in the Randstad (Source: CBS-Statline (2005))

Utrecht is the hub of the national railroad network and therefore developed as a centre for national corporate headquarters for service and software (*ibid.*). The rapidly growing university area is partly the reason for the high education level and high-income growth of citizens in the Utrecht region. The regions of Leiden-Aalsmeer and Westland are the centre of the still highly productive flower trade and horticulture. Gooi-Vechtstreek and the Haarlem sub-region are the elite residential areas east and west of Amsterdam. Since the core of the Randstad is the protected Greenheart, spill-over of economic and spatial dynamics is directed towards the reclaimed province Flevoland, in particular Almere, the Randstad's fifth largest city. With Almere, in the 1990s other medium-sized towns as Amersfoort in the Utrecht region and Leiden developed rapidly due to economic overpressure in the four largest cities and despite their less outspoken socio-economic profiles.

The end of the 1990s has shown a growth of larger and medium-sized cities in the Randstad. Particular attention should be paid to the larger Amsterdam region, with a GDP per worker of €87,573 comparable with other major European capitals. High commuter levels blur the productivity levels of Flevoland and East-South Holland. Nevertheless, the employability is equally distributed in the Randstad, with 45 jobs for every 100 inhabitants (Figure 2.5). In particular IJmond is set backward in terms of GDP growth (Figure 2.3). With the exception of Delft-Westland, and stagnating Haarlem, all regions were able to create new jobs, as Figure 2.4 shows. Even the main cities could, in contrast to London and Paris, decrease unemployment in combinations with income growth.

In the Randstad, the relatively equal distribution of employment and income and the relatively strong emphasis on service sectors is striking. With the exception of manufacturing in the southeast of Holland and Zaanstreek, steel mills in IJmond, and horticulture in Westland, all regions have four-fifths of their employment productivity in service industries. A large share of services is characteristic for metropolitan economies, parallel to a knowledge-intensive innovative manufacturing. This R&D is relatively weak developed in the Randstad, with a single concentration in Delft University of Technology campus. Amsterdam benefited more from the economic booming period than the Rotterdam region did in the 1990s. Medium-sized cities such as Haarlem and Leiden have a high percentage of services, although show slower economic growth figures because of a scarcity of space for business expansion.

The economic downswing in 2002-2005 in the Netherlands affects the economic performance of the Randstad regions as well. Amsterdam's business service industry and particularly information technology made a fall in terms of employment. The importance of services is thus tempered in periods of lower economic growth. The larger Amsterdam area near the airport, Haarlemmermeer, continued to grow at a lower pace. In 2004, it was only Flevoland that made up arrears and continued to create jobs where all other Dutch provinces lost employment. Amsterdam is recovering from the current recession, where the south wing continued to lose jobs until recently (CBS Webmagazine 2005).

In sum, the regional economic performance of the Randstad city-region can be characterised as trade- and business-oriented, with equally spread employment and income. The high labour productivity in Amsterdam is an exception and competes with other European capital regions. The lack of variety in performance between the sub-regions does not differentiate the Randstad



city-region entity from other regions in the Netherlands. In particular due national factors, the Randstad's economy flourished in the 1990s and declined more recently.

## 2.5 Regional economic performance of Frankfurt Rhein-Main

### *Frankfurt Rhein-Main in national perspective*

The 1990s and 2000s German economic crisis with unemployment, labour market bureaucracy, pensions, social welfare contributions and strikes do have a considerable impact on the regional economy of the case study. In an international comparison of globalising city-regions, it made Frankfurt Rhein-Main perform worse than other city-regions, mainly due to the national factors. In terms of population and contribution to the GDP, the state Hessen is of average size for German standards and comparable in size to the Randstad city-region. Bayern and Baden-Württemberg perform best, particularly around München and the Stuttgart suburb, and Karlsruhe. The northern and eastern states show worse economic performances (Focus-Money 2003).

The relative importance of Frankfurt Rhein-Main should however not be underestimated. First the productivity per employee is the highest after Hamburg. But more importantly, Hessen differs from the Frankfurt Rhein-Main city-region that also includes parts of high productive

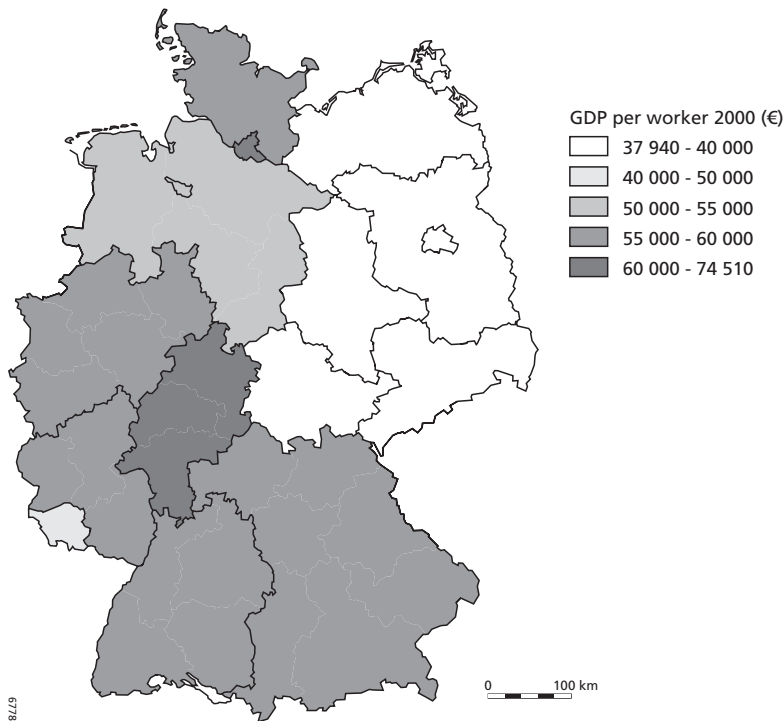


Figure 2.6 GDP per worker in German states (Source: statistik-portal.de (2005), Freund (2002))

parts of Bayern and Rhineland-Pfalz. In the end, Frankfurt Rhein-Main in southern Hessen covers 4% of the German area, includes 6% of the total population and, the inhabitants add 8% to the national income (IHK 2003). Since the 1950s, unemployment rates have been constantly up to 3% lower in Frankfurt Rhein-Main than the German average. Hessen's GDP of €64.289 per employee is around 20% higher than the German average, the second highest after the city-state Hamburg (Figure 2.6).

#### *Frankfurt Rhein-Main in regional perspective*

The northern and middle parts of the state Hessen perform on an average level in Germany (IBH 2002). Unemployment in the northern part (8,7% in 2001) and central part (6,8%) of Hessen remains higher than the more successful economic performance of southern Hessen (5,8%). The Rheinland-Pfalz sub-regions of Alzay-Worms and Mainz-Bingen, however, develop best in the city-region (Figure 2.8 and 2.9). Frankfurt, Hochtaunus and Main-Taunus districts follow the Rhineland.

Frankfurt's share is around 25% of Hessen's GDP, which dropped from 33,4% in 1988 (Gutberlet 2002). The other main cities Darmstadt, Offenbach, Wiesbaden, Aschaffenburg, Mainz and Worms together contribute another quarter to the GDP, a stable share compared to 1988. The other half of the total production in the city-region, with an increasing share over time, can be found in the less urbanised counties of towns and villages.

In Figure 2.7 Frankfurt's high labour productivity is remarkable. This is mainly explained by the fact that two-thirds of Frankfurt's jobs are filled with people living outside the city (Gutberlet 2002). The high productivity makes Frankfurt am Main the nerve centre of the German economy, and the growth engine of the region (Freund 2002). Frankfurt and the direct neighbouring counties in the '*Speckgürtel*' (Groß-Gerau, Hochtaunus and Maintaunus) base their added value on three economic pillars and their spin-off: the banking district, the airport and the convention centre *Messe*.

First, the airport offers direct work to 62.000 employees. The freight transportation in the airport is the largest, with passengers' transportation ranking as the second largest on the European mainland. There is a spin-off towards the catering, hotels, cleaning and retail industries in the direct environment. Second, Frankfurt's CBD is the main location for banks and insurance companies in the European mainland. After Germany was split in a western and an eastern part, banks moved to Frankfurt, a city with a specialised banking tradition and stock exchange since the Middle Ages. The banking quarter directly offers about 65.000 jobs (Freund 2002). Back offices and supplying financial services are found in neighbouring counties with lower taxes. The third economic pillar is the Frankfurter Messe that employs only 625 persons but functions as a magnet for the city: every year about 50 conventions are held that attract over two million visitors. The direct and indirect spin-offs are considerable, particularly in hotels, tourism and shopping in Frankfurt's downtown. Additionally, the importance of the media sector in the region is often underestimated; Frankfurt has the largest concentration of media employment in Germany.

Over time, the surrounding cities of Darmstadt, Offenbach, Wiesbaden, Aschaffenburg, Mainz and Hanau, within which many downtown areas were destroyed in the war, created their own economic position in the Rhein-Main region (Freund 2002).

The former artist city Darmstadt could be a typical bureaucrats' city due to its long history of governing the region. However, during the last decades Darmstadt has developed as the science and technology centre of the region and is allowed to call itself *Wissenschaftsstadt*. The city has a manufacturing character that could offer centrally located sites in the after-war era for low prices. This background combined with a science tradition created the environment for innovative industries, with particular growth in the software industry.

Hessen capital *Landeshauptstadt* Wiesbaden could combine hard location factors (accessibility) with softer location factors (culture), establish a flourishing economy with an above average GDP of €66.829 (Figure 2.7). Wiesbaden was able to maintain its profile of a city with an emphasis on the quality of life: in the 19th century starting as a bathing city, and in the 21st century added with conventions, consultants and governmental functions sprawled over the city.

Neighbouring media city Mainz is the capital of Rhineland-Palatinate with a relatively prosperous economy of GDP 55.977 per worker and substantial growth. Mainz has a mixed economic structure with 80,9% services. Capital governmental offices mainly cause this. Furthermore, Mainz specialises in media (ZDF headquarters) and specialised glass manufacturing.

Offenbach am Main developed in the 19th century in the shadow of Frankfurt as a chimney-free manufacturing city. The former *Landesfabrikstadt* is specialised leather, metal and machines. Because of the industrial image and the less attractive accessibility, the city has grown only 42% in the 1988-2001 period (see Figure 2.8) and shows the highest unemployment rate of Frankfurt Rhein-Main.

Neighbouring city Hanau is well known for its former nuclear industry and gold work, but is particularly specialised in chemical industries and medical equipment. The metal, measuring

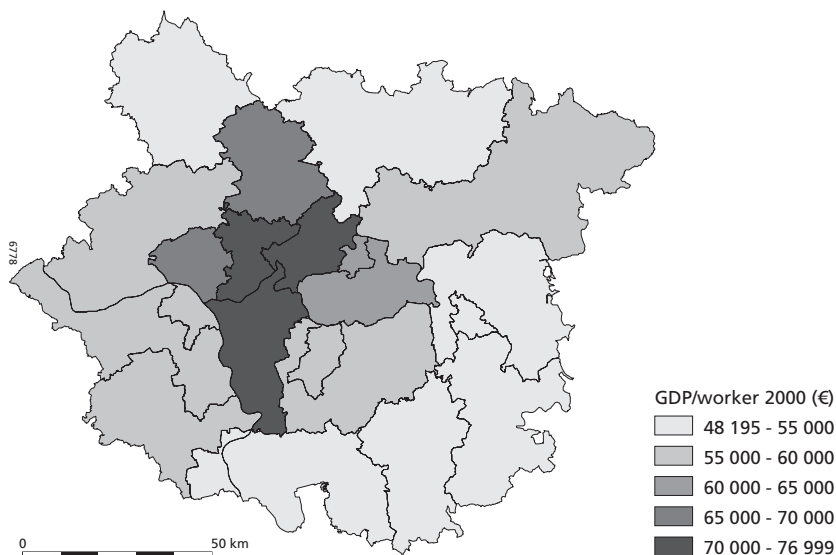


Figure 2.7 GDP per worker in Frankfurt Rhein-Main (Sources: Hessische Kreiszahlen 1989,1996,1999,2003, PVFRM (1997, 2002) Gutbarlet (2002))

apparatus and electric industries are still important for the city, but Hanau had problems in transforming to a service-economy structure. In particular, the decision to stop using nuclear power hit the city hard and led to a decrease of high qualified labour, increase of unemployment,

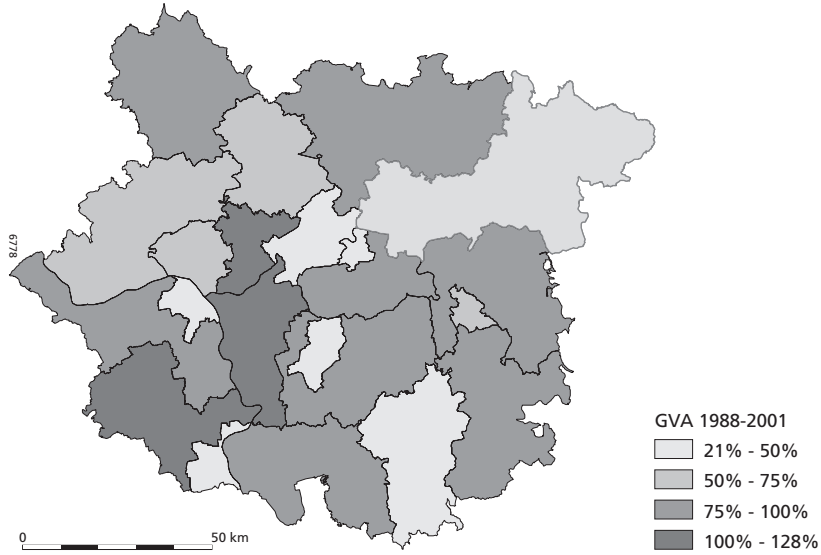


Figure 2.8 GVA growth in Frankfurt Rhein-Main (Sources: Hessische Kreiszahlen 1989,1996,1999,2003, PVFRM (1997, 2002) Gutbarlet (2002))

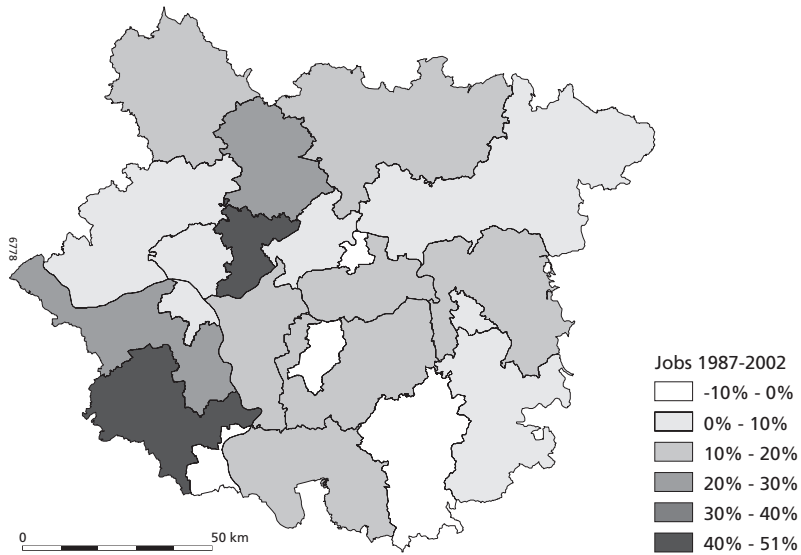


Figure 2.9 Job growth in Frankfurt Rhein-Main (Sources: Hessische Kreiszahlen 1989,1996,1999,2003, PVFRM (1997, 2002) Gutbarlet (2002))

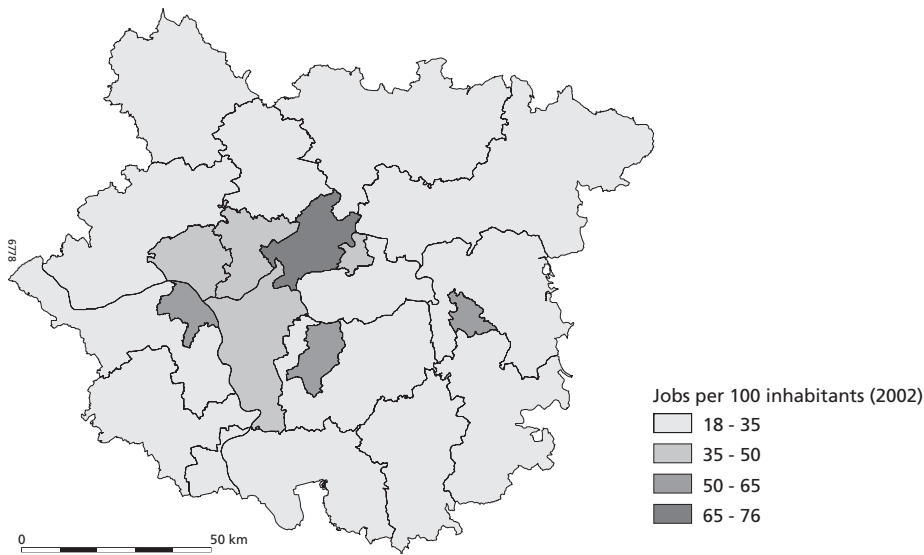


Figure 2.10 Employability in Frankfurt Rhein-Main (Sources: Hessische Kreiszahlen 1989,1996,1999,2003, PVFRM (1997, 2002) Gutbarlet (2002))

and lowest growth of gross value added (GVA), resulting in a low €20.644 per capita income (Figures 2.7-2.10).

Aschaffenburg is traditionally the centre of the Bavaria's clothing industry and supplying services, explaining the smaller size of the service industry. Similar to the Taunus area, this sub-region played the tax-competition relatively hard, and in combination with an attractive living environment could attract businesses and services just within her border and as Figure 2.9 shows created new jobs in the last decade.

Figures 2.7-2.10 also offer an overview of the economic performance of smaller sub-regions in Frankfurt Rhein-Main. In Rhein-Main the west-east contrast is remarkable: the Hochtaunuskreis and Main-Taunus grew rapidly in terms added value and jobs. Offenbach, Darmstadt and Odenwald in the east are the only sub-regions that faced a decline of jobs in the last fifteen years. The attractive northwestern Taunus mountain living environment, accessibility to airport and highways, economic structure and education level are the main explanations for these diverse developments in this so-called *Speckgürtel* (Freund 2002). The high productivity per employee in the car manufacturing industry in Rüsselsheim is furthermore remarkable. This is part of the southern ring of R&D intensive manufacturing, the locally so-called *Produktionsgürtel*.

In sum, the differentiation of income and employment is striking in the regional economic performance of Frankfurt Rhein-Main. Therefore, the conclusion drawn by Jacobs (2000:146) that the cities in Rhein-Main could be seen as merely suburbs of Frankfurt cannot be upheld. The dominance of Frankfurt's banking and airport sectors is without doubt, but the variety of the regional economic sectors in the cities and towns and clear economic profile makes the region strong as a whole, reflected in Frankfurt's losing share in the regional economy. The specialisation

and variety of economic sectors makes the city-region less vulnerable in times of economic structural change and sector process of creative deconstruction.

## 2.6 Regional economic performance of Tokyo

### *Tokyo in national perspective*

The Tokyo Metropolitan Area or southern Kanto (Saitama, Chiba, Tokyo and Kanagawa prefectures) is not only the urban and political centre of Japan; it is also the economic core of the country and a global city. In the metropolitan area, where a quarter of Japan's citizens live, employment adds roughly 30% to the GDP on 3,6% of the country's surface (Chorus 2002). Almost half of the headquarters of national companies are located here (43%) and most headquarters of international firms can be found in the Tokyo Metropolitan Area (88%).

In structural and institutional analysis of Japan's economic problems, Porter, Takeuchi and Sakakibara (2000) found two Japans: the Japan of international leading sectors that are often cited as the famous model of bureaucratic capitalism, and the uncompetitive Japan of economic sectors that are strictly regulated and protected by government, which lack innovation and competition. The first Japan is carrying on and balances out the deficits made in the second Japan. The fast economic growth established the institutional context but actually hindered further development of less competitive sectors as retail, food, and construction. Studies emphasized the successful bureaucratic capitalism of the government of coal (1950s), steel and shipbuilding in Kansai (1960s), and semiconductors (1970s) and computers (1980s) in Kanto. In the 1990s headquarters, education, culture and media increasingly clustered in Tokyo with the international financial and management functions of the service economy (Porter *et.al.* 2000).

The economic performance of Tokyo and Japan cannot be understood without the context of the general economic stand still of Japan in the 1990s, after the steady and rapid economic growth that led to the climax of the bubble economy in 1989. The last ten to fifteen years are also known as 'the lost decade' but is actually an economic standstill in contrast. A lack of private investments and spending was mainly compensated by investments of the public sector, in particular public works (see McGormack 1996). Therefore, most Japanese did not consider economic problems as severe. Unemployment remains relatively low, income levels stable and prices deflated. In particular in centralised nation states such as Japan, one can expect that the Tokyo city-region is following national trends and has few opportunities to escape from the economic standstill.

In terms of productivity under €60.000 per employee Hokkaido, North-East Japan, Kyushu and Okinawa are still behind the Japanese average (see Figure 2.11). Amongst all Japanese regions, Kyushu showed a considerable growth in the last decade, which is mainly explained by the development of the city of Fukuoka. Most regions had a stable share of the GDP, although southern Kanto and Kansai had a strong decrease in the share of the GDP in the 1990s (Cabinet Office 2003). Nevertheless, the regional economies of Tokyo, Nagoya and Kansai are still disproportionately large compared to the population and have higher GDP per worker levels, where Nagoya even overtook the Kansai cities.<sup>14</sup> The manufacturing sector in Tokyo that left the

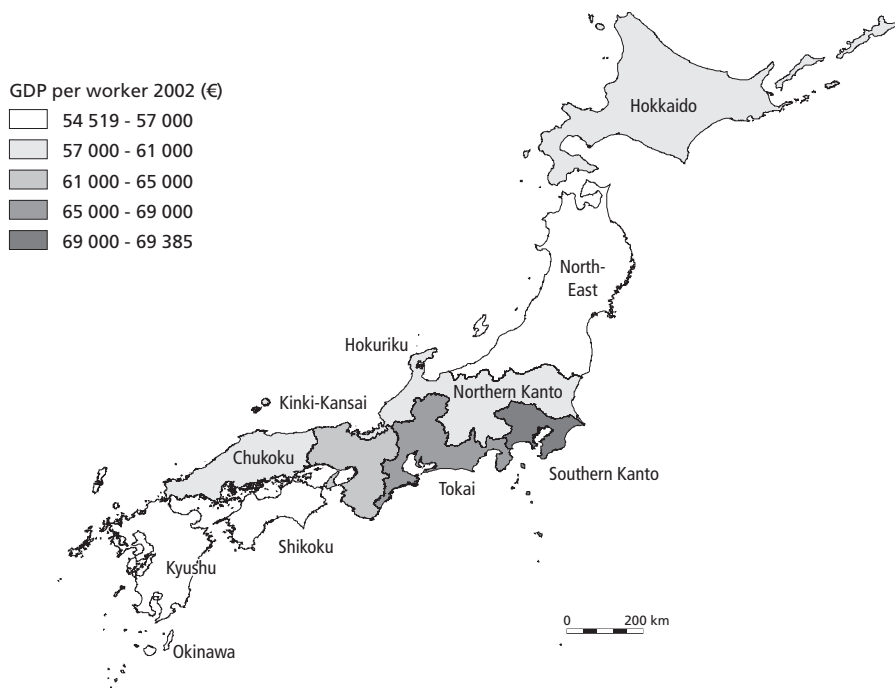


Figure 2.11 GDP per worker on Japan's islands (Source: Cabinet Office Japan (2003, 2005))

capital in the 1990s moved north, partly because of governmental regulations, boosting northern Kanto's economic performance.

#### *Tokyo in regional perspective*

Tokyo's population grew extremely rapidly in the 1950s, from six to over nine million. The speed slowed down in the 1960s and 70s and stabilized in the 1990s to twelve million inhabitants. Despite the recent stabilization and even slight decrease, the pattern within Tokyo is still dynamic. As Cybriwsky (1998) argues, in the 1990s Tokyo has become an 'urban donut' with a sprawl of people from the central business wards to the surrounding wards and suburbs.<sup>15</sup> The economic recession with decreasing land prices and Tokyo's continuous attractiveness as a residence made it possible for citizens to return to Tokyo more recently. Figures 2.12, 2.13 and 2.14 display the indicators of economic and demographic development of Greater Tokyo in the last decades.

Figure 2.14 shows that despite the economic standstill, 40% of the jobs in Tokyo are concentrated in the 5-ward area of Chiyoda, Chuo, Minato, Shinjuku and Shibuya, where service industries are concentrated. Employment concentration in combination with the relatively few citizens living in downtown Tokyo, leads to extreme differences in employability. Chiyoda has up to 100 times more jobs per 100 inhabitants than remote wards and the average of the cities in the table below. The downtown area suffered more than the average in Tokyo, but did not see a double digit decrease in jobs and establishments of firms such as in the northern wards of Taito,

Sumida, Toshima, Itabashi, Adachi and Katsushika as shown in Figure 2.12. These areas suffer from a relatively large manufacturing sector, the sector that already left more vital parts of Tokyo. Despite proximity of Haneda airport, and high absolute numbers of jobs and establishments, the economic performance of Ota-ward is poor (Figure 2.12). Ota used to have many small and medium sized enterprises, in particular factories and logistics that are apparently rapidly leaving the southeastern ward. The most recent economic trends show a slight economic improvement of the disadvantaged eastern wards based on (sub)culture and affiliated tourism.

Outside the central 5-ward area, employability is more stable than in downtown Tokyo with 45 jobs per 100 inhabitants. Economic downswing is found in most wards with extremely bad performance of some countryside villages and peripheral cities that are not mentioned in the table. In contrast, the Tama and Hachioji new towns and Fuchu, with double-digit growth Figures (Figures 2.12, 2.13), seem to be unaffected by the economic standstill in the rest of Japan. The employability rates of the new towns show that people suburbanised and jobs on more affordable followed later.

In Saitama jobs and establishments are overwhelmingly concentrated in the national appointed growth centres Urawa and Omiya, currently merged to Saitama City. Economic development is concentrated in southeastern Saitama, close to the 23-wards of Tokyo, besides Saitama City in Kawagoe, Kawaguchi and Tokozawa. Despite job concentrations, the employability rates are average in Saitama. Northern located Kazo shows high economic growth numbers, but with 25,482 jobs is still small in size (Figure 2.13). In comparison with Tokyo, the high growth rates of jobs in Saitama and low decrease of establishments is remarkable, and might imply Saitama's relevance as a more affordable option in the Kanto region.

Chiba prefecture experienced a remarkable 6,5% growth of jobs in a decade of stabilization in Japan. However, within the prefecture there are clear differences in economic development. Chiba's growth centres show a mixed result: Chiba City and New Town (7,3% more jobs), Narita Airport (19,2%), Funabashi-Makuhari (5,1%) did well but the planned R&D center Kisarazu: connected to Tokyo with an expensive Aqualine bridge-tunnel combination, (-6,1%) performed worse (Figure 2.13). However, it is Uryu, the location of Tokyo-Disneyresort, that grew from a village to a city and faced an explosion of jobs in the last two decades with the second highest employability rate in Chiba in 2001. Second best after Uryu, the Narita Airport City region with Narita, Sakura, and Togane also showed double-digit growth Figures. Narita City has a remarkable high employability rate of 89 jobs per 100 citizens, one of the highest in the capital region (Figure 2.14).

In southern Kanagawa, the coastal centres of Yokohama and Kawasaki dominate the demographic and economic development. Kawasaki faces severe economic structural problems caused by manufacturing outsourcing, and could not benefit from the nearby development of Haneda airport (Figure 2.12). Nevertheless, Kawasaki's employability rate of 40 is still average, where well-connected Atsugi show exceptional high employability rates (66 jobs per 100 citizens). Kanagawa prefecture in general has a similar decline of jobs and companies as Tokyo, where the exceptions are the concentrations in Sagami-hara and Atsugi, west of Yokohama and directly south of Tokyo, where R&D-related manufacturing developed rapidly in the 1990s (Sorensen 2001).



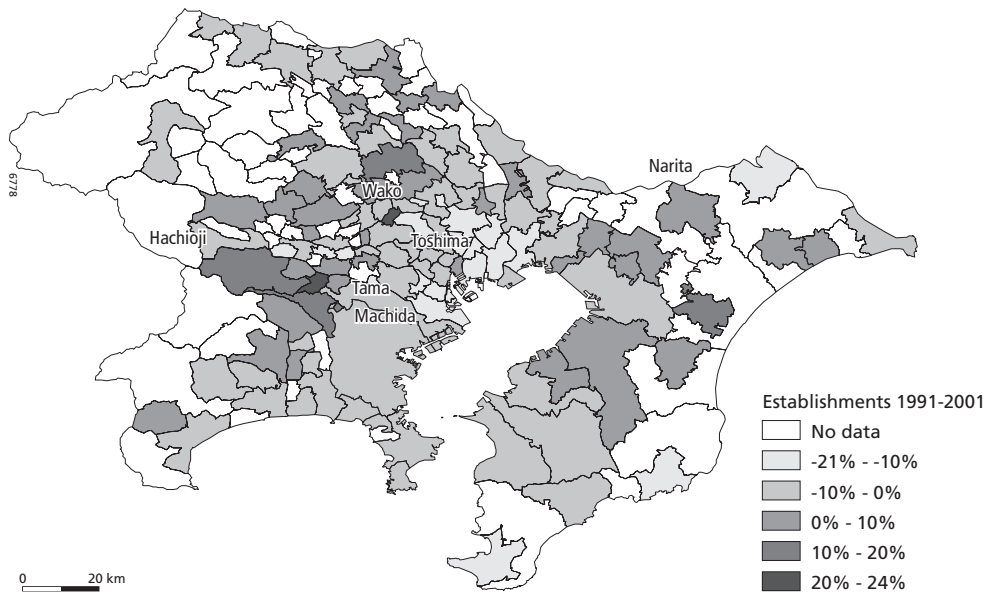


Figure 2.12 Establishment growth in Tokyo Metropolitan Area (Sources: Tokyo Statistical Yearbook (1992, 2002); Establishment Census (1996, 2001))

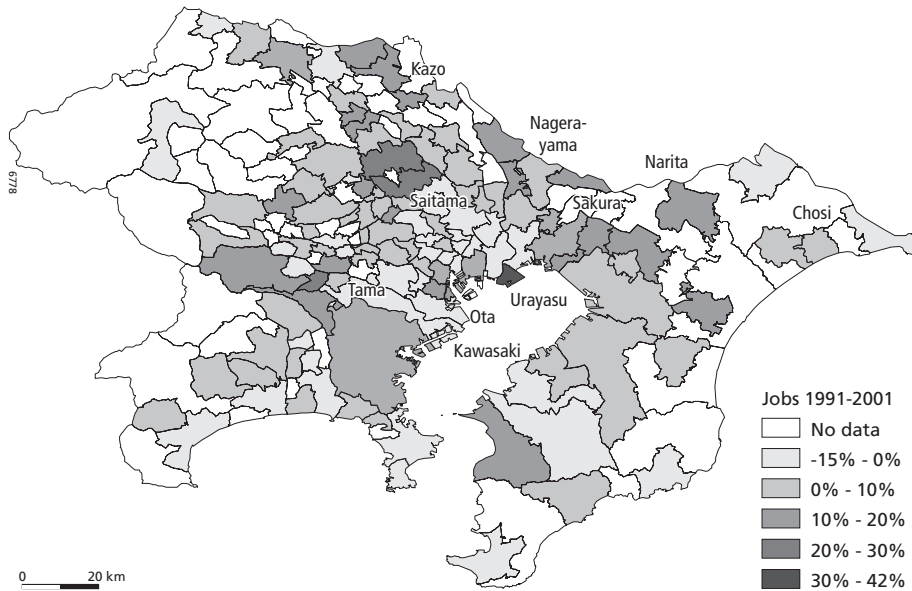


Figure 2.13 Job growth in Tokyo Metropolitan Area (Sources: Tokyo Statistical Yearbook (1992, 2002); Establishment Census (1996, 2001))

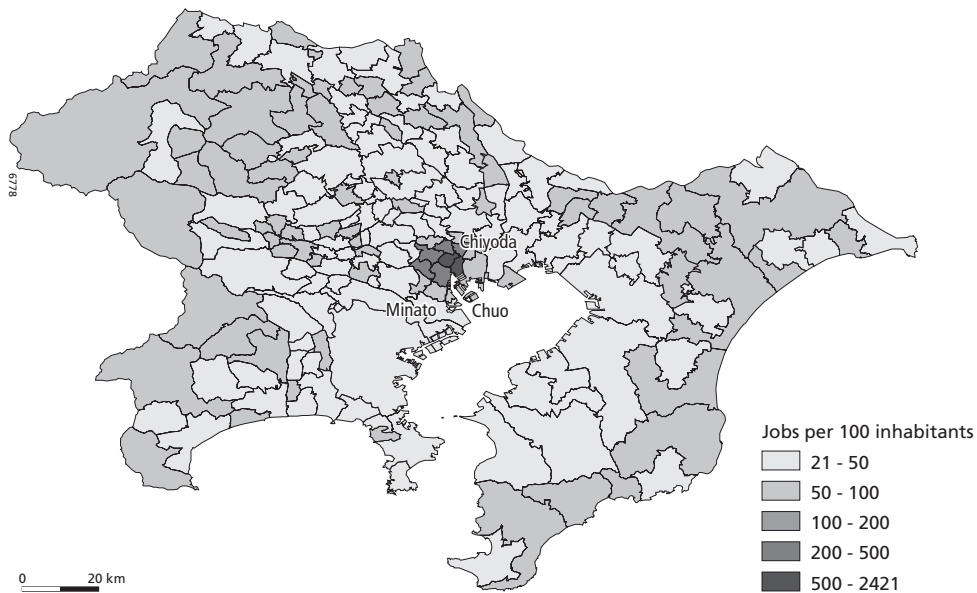


Figure 2.14 Employability in Tokyo Metropolitan Area (2002) (Sources: Tokyo Statistical Yearbook (1992, 2002); Establishment Census (1996, 2001))

In sum, in the last decade, the prefectures surrounding downtown Tokyo showed a better economic performance than Tokyo itself. There is nevertheless no doubt about the dominance of the 5-ward area in central Tokyo as the centre of the region. After a difficult start in the 1970s and 1980s, the appointed growth centres in the region flourished in the 1990s, and can now be seen as serious nodes that shape a polycentric network around Tokyo. These growth centres of Hachioji and Tachikawa in the west, Saitama in the north, Chiba, Narita, Urayasu and Funabashi in the east and Yokohama and Kawasaki in the south, these economic-geographical concentrations are encircling Tokyo, creating a polycentric city-region.

## 2.7 Quality of the business environment

The previous sections have given insight on the economic development of the city-region case studies. The second part of the benchmark, the quality of the business environment or investment climate, is more subjective and more future-oriented. These studies rely on the answers of entrepreneurs and the benchmarks of specialised agencies. First, general notions on the quality of the business environment on the national level are briefly addressed. Then, closer attention is paid to the strong and weak indicators of the regional investment climate.

The overall economic performance, according to the World Competitiveness Report (IMD 2005) analysed on the national level, is based on four elements: economic performance (as described in 2.4-2.6), government efficiency, business efficiency, and infrastructure for fifty selected OECD countries. In general, all three case studies are losing competitiveness in terms of business

environment compared to other countries in the world. For Germany and Japan, in particular efficiency of both governmental institutions and business are problematic. Recently, Japan's business efficiency (labour market, finance, management and attitudes) is slightly improving. In the Netherlands, fiscal policies and public finance are still weak, but the governmental efficiency is in general higher than in Germany and Japan. Furthermore, the Dutch institutional framework and business legislation in particular are improving. Germany and in particular the Netherlands are lagging behind Japan's excellent infrastructure in general, and outstanding scientific, technological and educational infrastructures.

After this general overview, it is essential to have a closer look into these categories and into the region. We draw here on benchmarks in northwestern European regions and extend it with Tokyo, in terms of market relations, business climate and image. The quality of market relations in the regional investment climate in Frankfurt Rhein-Main is valued best in Western Europe (Ecorys-NEI 2001). The enormous potential of the Tokyo market with cooperation, competition and complementarities is outstanding, in particular in combination with the high quality demand of the Japanese buyers.

In Table 2.2 there are considerable differences between the case study city-region in terms of quality of production environment.<sup>16</sup> In the 1990s economic booming period, scarcity of skilled and motivated labour developed in the Randstad, but with the recent downswings in terms of quality that is no longer an urgent issue. Randstad and Frankfurt Rhein-Main are stepping stones for talent to global cities as London and Tokyo. The Japanese market is more stable; Tokyo continuously attracts the quality and quantity of labour the regional market needs to continuously develop, partly brain draining other regions in Japan.

The availability of houses is problematic in the Randstad due to a lack of high-end residential areas, in Frankfurt due to high rents, and in Tokyo due to a general lack of quality and high rents of apartments and houses (Table 2.3). The position of crime in the benchmark for Frankfurt is misleading since all illegal refugees entering Germany by Frankfurt International Airports are counted in the local crime statistics.

*Table 2.2* Best performances of the case studies' business climate

Rank	Randstad	Frankfurt Rhein-Main	Tokyo-Japan
1	Air transportation	Air transportation	Rail and public transportation
2	Water transportation	Market relations & services	Domestic suppliers
3	Financial market	Telecom infrastructure	Public investment R&D
4	Freight rail transport	Education facilities	Education
5	Competition	Freight rail transport	Buyer sophistication
6	Market size	Public transportation	Quality research labour
7	Available offices	Financial market	Competition
8	Services	Services for residents	Regulatory standards
9	Suppliers	Quality industrial sites	Tax
10	Urban environment	Accessibility by road	Technological infrastructure

Source: Ecorys-NEI (2001), Porter *et al.* (2000), IMD (1995, 2005), Takeuchi (2001)

The second main problem in the Randstad is infrastructure accessibility, particularly in Amsterdam, Den Haag and Utrecht. The infrastructure is valued even less than in congested Paris and London, and appreciated more than the less urbanized areas in and outside the Randstad. Frankfurt Rhein-Main and Tokyo's regional integration is well developed due to excellent regional transit systems. In these city-regions rail transport is a competitive advantage. This is in contrast to the Randstad where the lacking coherence in the polycentric region is the most important reason for entrepreneurs to not see public transportation as a serious alternative to accessibility by car, particularly outside the main cities (cf. Jacobs 2000). In the Randstad, water transportation is still a competitive advantage. Most striking is that in both Frankfurt Rhein-Main and the Randstad, the airport is seen as the main competitive edge. This is in sharp contrast to Japan, where air transport is considered as weakness number five, slightly better for the Tokyo region but still considered as a disadvantage.

In the international benchmark Frankfurt's government is seen as relatively strong due a positive attitude of the regional government. Frankfurt entrepreneurs' main problem is the tax climate however, in particular corporate tax, despite the fact that many European cities perform even worse (Ecorys-NEI 2001). Particularly, the direct competition on corporate tax amongst towns in the Rhein-Main area is one of the critical issues of political debate. Furthermore, subsidies and incentives are not considered as very valuable for economic activities. The Randstad and Tokyo do not have tax competition and therefore also less financial incentives for distinguished regional development. For Tokyo, low VAT tax is a major advantage. Foreign direct investment (FDI) inflow into Japan's economy is, with 1,1% adding to the GDP in 2000, still extremely low compared to for example Germany (22,4%), and is the limited access to the Japanese market is one of the most important national factors hampering the development of regional economies as Tokyo (ACCJ 2004).<sup>17</sup>

The limited access to markets for foreign companies and start-ups protects the interest of the current major entrepreneurs, although the regulatory standards also lead to the advantage of higher product and services quality. Japan's competitiveness is mainly caused by the intensity of local and domestic rivalry in combination with high quality demands. Although the quality of education and research are in international perspective good, the quality of management schools

*Table 2.3* Worst performances of the case studies' business climate

Rank	Randstad	Frankfurt Rhein-Main	Tokyo-Japan
1	Availability & quality labour	Tax climate	Market access
2	Availability & quality housing	Crime	Computer utilization
3	Education level	Available housing	Financial markets
4	Accessibility by road	Available labour	Quality business school
5	Attitude governments	Office rents	Air transportation
6	Attitude labour	Subsidies & incentives	Openness public sector contracts
7	Crime	Water transport	Port infrastructure
8	Tax climate	Rents industrial sites	Bureaucratic red tape
9	Public transportation	Competition	Road infrastructure
10	Wage level	Education level	Antitrust policy

Source: Ecorys-NEI (2001), Porter *et.al.* (2000), IMD (1995, 2005). Takeuchi (2001)

is nevertheless disappointing. The famous government R&D investments are exaggerated: the actual governmental contribution is much lower than is supposed, and managers do not consider R&D consortia to be important for the economic performance (Porter *et.al.* 2000). Japan's best and worst performances are in contrast to the Randstad area, where market access is the competitive edge and labour market quality and availability is limited.

An additional location factor is culture. Tokyo, Amsterdam, and to a lesser extent Rotterdam and The Hague are the national centres of culture, with the famous museums, opera, and cinemas. For Frankfurt, this issue is more complicated and subject of debate, since Berlin has more culture to offer, due Frankfurt's image as a working city. Nevertheless new projects such as Museumufer in Frankfurt contribute to the city-region's culture base, and challenge the established image (for a detailed discussion, see Van Aalst 1997).

In sum, the benchmark survey offers an overview of the quality of the business environment in terms of market relations, business environment and image. The quality and availability of labour is high in Tokyo, but problematic in the Randstad. Japan's business efficiency is sluggish, but the size of the market and high quality demand makes market relations excellent. In the contrary, the Randstad is open but small in size. Tokyo's rail infrastructure is a major advantage, but airports are seen as less well developed in the city-region. Frankfurt scores excellent in rail, road and airport infrastructure. Airport in the Randstad is considered a competitive edge, but roads are congested and public transport is not taken seriously. Tax competition is severe in Frankfurt Rhein-Main, and not harming business investments seriously in the other cases.

## 2.8 City-region formation in the case studies

The analysis of economic performance and quality of the business environment emphasises the importance of developing a metropolitan economy that integrates the city-region, increases scale, with wider variety, higher standards, better access and more competition. Processes of city-region formation stimulate the process of regional integration that provides more variety on larger markets that city-regions need in able to specialise and take position in the new global hierarchy. The question rises if and how this takes place in the case studies. In order to answer this, the history of political and bureaucracy initiatives are explored, as well as more recent bottom-up private and public initiatives that are of the increasing importance.

### *City-region formation in the Randstad*

The ambition in the Randstad to develop towards a metropolis that can compete with other globalising city-regions was particularly examined in three different periods. According to Zonneveld and Verwest (2005) the discussion was raised in times of economic recession (1980s), and in times that the Randstad had to compete with other metropolises (1950s and 1990s). Here we will discuss these periods and see if and to what extent the Randstad could become successful in the formation of a coherent and competitive city-region. The changing way of thinking about the Randstad region can best be described upon the national planning memoranda and private initiatives over time.

The precursor of the first national planning memorandum, *De ontwikkeling van het Westen des Lands* (Rijksdienst voor het Nationale Plan 1958), sees the Randstad as a circle of sprawling

agglomerations without a defined centre. This incoherent spatial pattern was considered as a major advantage compared to congested and overcrowded cities with over than one million inhabitants such as Paris and New York (Dijkink 1990). Proponents of further development of the western part of the Netherlands introduced the double planning concept Randstad-Green Heart, which refers to the ring of cities around the wetlands in the geographical centre (see Faludi and Van der Valk 1994). Opponents in the 1950s point at the fact that this Randstad area does not function as an social-economic unit at all, and fear the metropolitan ambitions in the Randstad-Green Heart that would lead to congestion and overcrowding.

The second national planning memorandum (*Tweede Nota* 1966) is a continuation of the general view of spatial redistribution from the urban-economic centres to the disadvantaged regions, including redistribution within the Randstad city-region. The common thinking, argued by Dijkink (1990), was that a metropolis in the Randstad would furthermore increase inequality in the Netherlands. Therefore, his minister banned a publication of former national planning agency director Hazelhoff on the need of a metropolitan E-milieu. This currently non-existent 'super-urban quality milieu with allure and élan' would, in his view, be complimentary to the officially distinguished locations for agriculture (type A), villages (B), towns (C), and cities (D) in this planning memorandum.

The discussion over the development of the Randstad as a city-region changed tracks in the 1980s (Zonneveld and Verwest 2005). Economic recession planning was more than before forced to focus on economic aims rather than the metropolitan shape. Concentration was no longer the worst imaginable development, and the economic potential of the major cities, in the face of crisis, should be applied (Dijkink 1990). This line of reasoning started in the third national planning memorandum (*Oriënteringsnota* 1975) and continued in the fourth (VROM 1988), where it was said that regions should develop based on their own strengths, and urban nodes of concentration were appointed (cf. Korthals Altes 1995). The Randstad developed as the western wing of a larger network of central cities in the Netherlands. It, however, turned out politically unacceptable that the discussion over the structure of the Randstad did not lead to conclusions over the urban design of the Randstad (Zonneveld and Verwest 2005). Furthermore, provinces and cities were unable to come to a metropolitan development scenario. For the second time, temporarily, the debate over the city-region faded away.

In the 1990s the discussion on the Randstad as a metropolis ran high for the third time. Similar to the 1950s, the debate was intended by the challenge to compete with other globalising city-regions. Nevertheless, there were crucial differences to the former discussions. First, it was more or less agreed upon that the Randstad is not a typical metropolis (Dijkink 1990, Zonneveld and Verwest 2005). Despite the failed policies of the cities to establish metropolitan policies in the last decades, the Randstad is not, but still can become, a metropolitan area, De Boer argues (1996). Second, and more important, the bottom-up development of both public and private actors interested in creating a metropolitan economy evolved. Private initiatives were taken to discuss the further development of the Randstad,<sup>18</sup> which finally resulted in the establishment of the Deltametropolis Association (1998).

The main objective of the Deltametropolis Association was to make use of the potential of the delta area by transforming the current incoherent region with individualistic medium-sized cities into a coherent metropolis. This however indirectly implied improvement of the Randstad's infrastructure and therefore was politically connected to the *Rondje Randstad* project of the

high speed rail loop line between the four largest cities in the Randstad. The Deltametropolis Association think-tank and lobby group was eventually successful with the (political) embracement of *Deltametropolis* as substitute for *Randstad* in the precursor of the fifth national planning memorandum (2001).<sup>19</sup> The discussion on the metropolitan ambitions, however, led to the political sensitivity (in particular expensive) of the *Rondje Randstad* and the conclusion that the Randstad is not the appropriate spatial scale for social and economic activities of most citizens.<sup>20</sup> These critiques are recently one of the reasons to bring the well-established name Randstad back on the agenda as Randstad Holland, with an aim of merging provinces and increasing planning tasks on the Randstad level.<sup>21</sup>

Until today, *Bureau Regio Randstad*, the Randstad coordinating platform's tasks are very limited, and it is only equipped with tools to improve relationships between provinces, major cities and national governments on a voluntary basis. Since the Randstad covers almost half of the Netherlands, the national government and policy makers are reluctant to establish the Randstad as a constitutional unity with self-steering powers.

In sum, the attempts in the Randstad to develop towards a city-region, which can act as one actor, has shown less success. The debate in particular focused on the planning concept and program rather than on institution or organization building. These failures are mainly caused by fear of super-urban structures, dominance of the city-region in the national context, and the rejection of the scale of the Randstad city-region as the appropriate level of social-economic activities and political action. Zonneveld and Verwest (2005) argue that the failures to define the Randstad as a metropolis should lead to the conclusion that the concept of a Randstad metropolis misses the required convincing power.

#### *City-region formation in Frankfurt Rhein-Main*

The formation of a city-region in Frankfurt Rhein-Main focuses on organisation structures rather than a generally accepted planning concept. The main problem is creating organisation structures, not the fear of super-urban structures, as they already exist in Frankfurt. Furthermore, in Frankfurt Rhein-Main, actors agree upon the spatial scale of the city-region.

Nevertheless, parts of the political-bureaucratic discussion are comparable to the Randstad. The Rhein-Main region has a structure of medium-sized towns, villages and larger cities that have their own roots and social-economic profile. Until recently, these places operate relatively independently. The shorter distances due to the transportation networks have made the Rhein-Main region however, against its tradition, a city-region in terms of social-economic activities. The city-region, integrating as a political and governmental unit, parts in a problematic tradition. In 1975, *Umlandverband Frankfurt* (UVF) was established. The aim of this regional association was to be a cooperative and ordered development of the Frankfurt region by transferring planning competences and water-, waste-, and leisure management to the regional level. According to Heinz (2000), the UVF was however always considered as a 'toothless tiger' due to a lacking enforcement of competences and a limited regional coverage that excluded the airport's neighbouring communities.

The 2001 successor *Planungsverband Frankfurt Rhein-Main* has even less competences but is at the same time a larger and more realistic planning area with more municipalities joining the association. A state like Hessen would lose meaning if the region Frankfurt Rhein-Main would

become too independent and powerful, and is no supporter of territorial reorganisation of the bureaucracy.

The lack of city-region formation is not only a bad performance of political actors, argues Freund (2002a:143), but there is also nothing worth mentioning in terms of city-region formation by social and cultural non-profit organizations. It is the economic agents alone, in relation to regional media, which are leading the city-region formation process in Frankfurt Rhein-Main. There is a variety of market actors, including airport, business leaders and managers of cultural institutes, that are interested in the construction of a metropolitan region and continuously discuss the matter on regional platforms.<sup>22</sup> Many actors are disappointed in this respect and are willing to mobilize their own grassroots support, for instance in *Wirtschaftsinitiative – Metropolitana Frankfurt Rhein-Main* and *Vereinigung hessischer Unternehmensverbände*, and *IHK Forum-Rhein-Main*, the regional business employers' organisations.<sup>23</sup> The common idea of the private actors is to push the governments to change toward one metropolitan area. Inspiring projects such as the Olympics bidding can contribute to the regional self-consciousness. The current business perspective is pessimistic: the 2003 European third position after London and Paris might be an eight position in 2006 (FR 7.11.2003). Therefore the entrepreneurs demand a politically powered multi-purpose organisation in Frankfurt Rhein-Main, which is not merely based on voluntary cooperation.

Probably some other attempts or efforts to promote and develop Frankfurt Rhein-Main can be added or are currently emerging: it shows the interest of regional stakeholders in regional cooperation. This regional cooperation is in a political lock-in created by unwillingness, local interests and cooperation failures in the past. A major problem is that all public efforts are politically sensitive and politicized. The sense of urgency and the economic interests of the entire region now force the strategic actors to change the chosen paths.

In sum, political and administrative conflicts are the main reasons for the lack of regional cooperation in Frankfurt Rhein-Main. Private initiatives for creating a breakthrough for this institutional lock-in are different from the Netherlands. Urban designers do not lead them, but rather economic stakeholders and regional media, which underline the sense of urgency. Salet *et.al.* (2002) conclude that creating this kind of connectivity between stakeholders on the regional level can be a solution for regional cooperation rather than reforming or adding a regional administrative level with executive powers.

#### *City-region formation in Tokyo*

According to Friedmann (1986), a city's position in the world hierarchy is related to the global economic functions it hosts. In this sense, the position of Tokyo is dominant, although its star is less shining due low economic growth in the last decade. Despite competition amongst city-regions, it looks like Tokyo did not actively strengthening its position as global city; it is primarily a natural economic process (cf. Machimura 1992). Because of economic hegemony, Tokyo did not have to worry about the competitiveness of the city-region, and for safety, social and environmental reasons it was even seriously discussed to dismantle Tokyo and move the capital to a safer and more suitable location (Cybriwsky 1998).

Until the 1980s, the developmental state model was at the basis to improve the city-region's competitiveness. This model required a close harmony between governmental policy



and economic investments (*ibid.*). The mechanism to succeed economic development was based on close links between Japanese politicians, bureaucrats and businesses, and at the same time separated Tokyo from the rest of the world. Tokyo Metropolitan Government was, due to financial and economic power, the leader of coalition with strategic projects as the new waterfront in Tokyo. Saito (2002) argued that this waterfront was Tokyo's answer to the capital relocation plans of the national government.

More recently, since the financial crisis in Asia in 1997, competition for a global city status in Asia has increased. Singapore, Shanghai, Hong Kong and Seoul are competing to get to the level of Tokyo, London and New York. New airports in these cities are seen as a symbol of this trend to be connected to the worldwide network of city-regions, but also the relatively new element of gaining attention by hosting exhibitions or festivals (Douglass 2000).<sup>24</sup> Tokyo's goal is to compete with other foreign global city-regions, which is in contrast to other cities in Japan that lack profile and ambition. Even Osaka is no longer a serious threat for Tokyo.

Saito and Thornley (2002) examined Tokyo's recent moves to move out of the arm-chair position. The 1990s economic recession forced Tokyo to change plans for the capital region to re-emphasise the importance of Tokyo's downtown in balance with new towns in the region, and to open-up the discussion of internationalisation. It opened the composition of the actor-coalition to 'outsiders'; however, it is currently unclear if there is a leading actor coalition in the city-region (Interview Machimura 2004). Decentralisation is the dominant policy, so in legal terms the ministries and TMG are enlarging the playing field for local and private actors, but their ambition is to remain in control of powers. The National Capital Region's prefectures and leading mayor are discussing the future of the capital region but the discussion of relocating the capital is fading away. There seems not to be a new urgent topic for discussion. The Tokyo Metropolitan Government itself is rather abstract on the future development of the city-region:

*"Tokyo is faced with a range of socio-economic changes [and] the changeover to policy-led urban development [by] maintaining and developing urban vitality, creating and sharing a rich urban environment, urban culture, safe and healthy living environment and new urban development based on the use of information technology"* Tokyo Bureau of City Planning (2001)

Amongst many abstract perspectives, only two concrete urban projects become clear: internationalisation of Haneda airport and development of three loop roads around Tokyo. Mitsui-Fudosan (Interview Mitsui-Fudosan 2004) criticise the governments' lack of vision on Japan and Tokyo, since there is no longer the perspective of catching up with leading western countries. Urban project developers such as Mitsui-Fudosan, Mori and Mitsubishi might fill the gap of the leading coalition in Tokyo, and become recognized as important for managing parts of the city. Mitsui-Fudosan's (2002) ideas of Tokyo's are to increase the current profiles of the zones in and around the city by improving the current inefficiencies of transportation -congestion- and land use – low densities.<sup>25</sup>

In sum, the discussion over a global competitive city-region formation in Tokyo is different from Frankfurt Rhein-Main and Randstad. Because of economic hegemony in Asia, plus the focus on economic development, Tokyo did not have to focus on this issue for a long time. The situation changed dramatically in the 1990s. There is no discussion over the planning concept in the Tokyo

Metropolitan Area due to the focus on economic development in the city-region. The Tokyo Metropolitan Government (TMG) used to be the dominant actor for boosting the city-region's competitiveness, but in terms of regional coalition building, it is currently these economic agents acting as project developers that are leading the discussion. The city government is not dominating the debate any longer as it used to do in the era of the developmental state. Policy orientation shows an interesting forced shift of the hard infrastructure orientation with visionary and expensive mega-projects at the waterfront and new towns, to softer elements that make the city-region competitive in terms of quality of life combined with economic development.

## 2.9 Conclusion

Theories over the further development of globalising city-regions in economic geography in the 1990s and 2000s focus on competitiveness. Despite disagreement on the exact meaning of competitiveness, it is generally accepted that city-regions are competing for their unique position in the global hierarchy, and this is not limited any longer to the traditional global cities. Polycentric city-regions are increasingly globally connected as well. Therefore, they have to organise and establish leading development coalitions that contribute to an integrated metropolitan economy with a wider variety, continuous change and an increase of scale, for instance with strategic urban projects. Regional benchmarks can contribute to the insights in paths, structure and weaknesses in the competitiveness, but can be traps when successful models are merely copied without considering the institutional roots.

Benchmarking city-regions is in this chapter used as a tool to measure the competitiveness in the past, present and future: the first step to answer research question 1. In the Randstad, Frankfurt Rhein-Main and the Tokyo Metropolitan Area case studies, this is measured by taking a closer look at economic performance, quality of the business environment and the formation of leading coalitions in the city-region.

All cases do have a disproportional share in the national economy, which is not so much shown in the share of the national economy (higher than the share of population), but mainly in the higher productivity levels of workers compared to other regions in the national economy. It is striking that despite economic growth in the regions, the number of jobs are not always increasing: a polarising trend of increased productivity with less jobs. Therefore it is important to consider the employability, which is strikingly equal in the Randstad sub-regions and (due to commuting) unequal in central Frankfurt and Tokyo. In addition, unemployment in all case study areas is relatively low.

The service industries are dominant for economic development in the last decades. The Randstad has proven to be successful in this field, particularly in (air) transportation, European headquarters, financial, and business services. Frankfurt and its northern neighbouring municipalities benefit in similar terms with airport transportation, international banking, and conventions. Tokyo was successful in international corporate headquarters, banks, and innovative business services. It turns out that, as theories on the metropolitan economy suggested, creative, management, and transportation jobs are leading sectors in the city-regions development. Nevertheless, other sectors can be highly productive and competitive too by applying new technologies, including manufacturing. In the benchmark study this was found

for the horticulture and flower trade in the Randstad, and some high-tech manufacturing in the southern belt of Frankfurt Rhein-Main, and Kanagawa south of Tokyo.

A benchmark can indicate the economic strengths and weaknesses, but can not frame the windows of opportunity for spontaneous innovations and changing trends. Where the Randstad is relatively egalitarian and service-sector oriented, Frankfurt Rhein-Main and Tokyo show more variety (by the share of services) and concentration (employability). This can be explained by a natural drive with a need of specialisation due to the market size and demand (Tokyo), and financial incentives for the regions to specialise due tax-competition (Rhein-Main). In addition, Tokyo and Frankfurt Rhein-Main have a competitive regional transit network and search of regional identity with a key role for regional media and economic agents, both supporting the process of regional integration, and increasing the economic potential. These are assets the Randstad does not have for improving the city-region's competitiveness.

In the process of positioning the city-region in the global economy, with a major role foreseen for the regions themselves, it is not the regional or national governments, but bottom-up public and private initiative that are leading. Economic actors such as chambers of commerce and business associations are leading in Frankfurt Rhein-Main, and major area developers in Tokyo contribute. In the Randstad, governors of the cities and other members of the Deltametropolis Association sense urgency, but the regional integration towards a metropolis continues to be tackled by the fears of metropolitan problems, super-urban areas, and a too powerful city-region on the one hand, and the awareness that daily life of most citizens takes place on a much lower spatial level on the other hand. In Tokyo it was not international competition, but national ambitions to relocate the capital that forced the local government to reassure its leading position by creating strategic urban projects as the waterfront redevelopment. Currently, it is project developers that are dominating the discussion of improving the competitiveness of the Tokyo city-region.

In terms of quality of the business environment, all cases continue to grow demographically and economically, an important condition for the stabilizing mature economies. On the labour market, there is a clear hierarchy in position of the case studies. Tokyo brain drains other regions in Japan and beyond, Frankfurt is seen as a stepping-stone in the career market, and the Randstad has increasing problems of attracting high educated and motivated personnel. Frankfurt Rhein-Main's and the Randstad's competitive edge is air transportation, which was also reflected in the economic performance of these areas in the city-region. In the 1990s, both city-regions have, despite their small size; benefited enormously from the international connections these airports offer the region. In the Tokyo Metropolitan Area however, air transportation is seen as a weak element of the regional economy, in contrast to the national excellence in rail infrastructure. City-regions do develop more and more polycentric, and airports are one of the centres. To understand the position of the airport as one of the new nodes, we need to take a closer look the new and current centres of economic, infrastructure, and urban development.

## Notes

- 1 According to Porter, wealth (value of good and services) defines the productivity with which its firms compete. The central issue in economic development is to create conditions for rapid and sustained productivity growth. For Porter, targeting desirable industries as information technology is based on a narrow

- view on competitiveness (Porter *et.al.* 2001). All industries can increase competitiveness if they employ high technology. For productivity geographic location, natural resources, and military power are no longer decisive. Instead, prosperity depends on how a nation and its citizens organize and manage their economy, the institutions that they establish, and the types of investment they make, both individually and collectively.
- 2 It goes beyond the scope of this chapter to discuss globalisation itself. The main characteristics of the global economy are according to the opus magnum of Castells (2000) information, internationalisation and network structures between firms and between people.
  - 3 Three main elements of the regional economy should be treated as equal for the competitiveness of the region, argues Storper (1997). First, relations of economic and public organizations are crucial in the coordination problem; these relations are socially and historically embedded. Personal contacts, networks reproduction and imitation of contacts are the relational qualities of the agents; relations of actors are interdependent. Second, technology used to be treated as a black box where rational actors are working on ad hoc innovations. Storper sees the element of technology as social relations with a continuous process of input of information, innovation and output of knowledge. Third, the position of the region is not only dependent on economic organisation and technology. The balance of technology, economic organisation and territory can lead to different results in regional worlds of production and innovation and coordination in action frames. This leads to the conclusion that voice and loyalty between public and private actors, in particular in coordinated market economy regions must be seen as relational assets.
  - 4 Evolutionary economics means that actors have a bounded rationality of risk-avoiding behaviour and routine decision-making. Despite this limited rationality, innovative behaviour is necessary to increase productivity and creativity. Bounded rationality and the need for innovations leads in an evolutionary economy to a basically stable pattern of activities and growth in the region (Nelson and Winter 1982).
  - 5 In liberal market economies, radical economic changes and innovations are favourable and are more effective, resulting in the successful development of the IT and biotechnology sectors. In coordinated market economies however changes are slower and less radical and new ways of coordination are more effective for improving economic performance than a retreat of the state. Despite the slower reaction the coordinated market economies have a track record in successfully adjusting to the new economic reality in a later stage and for a longer time. This can be found in Germany's success in the machinery and pharmacy sectors (Hall and Soskice 2001).
  - 6 Baden-Württemberg guarantees a stable and high-quality production environment for motors, where the more wild and open entrepreneurial environment of San Francisco favours new innovations in IT. A major finding is that every region has got its own competitive institutional advantages (*ibid.*).
  - 7 The underlying assumption then is, that airport area development is one of the economic pillars for developing the competitiveness of the entire city-region. The importance of the airport as a cityport will be further discussed in the following chapters 3 and 4.
  - 8 Especially in small countries as the Netherlands or centralised countries as France, city-regions have limited possibilities to change institutions as fiscal rules, labour wages or education levels (Ecorys-NEI 2001, 2001a).
  - 9 Gross Domestic Product (GDP) consists of Gross Value Added (GVA) minus subsidies and plus taxes to express the region's economic accounts. GDP can be measured per capita and per worker. GDP per capita measured the economic strength of the region as a whole, including machines and capital, but here the emphasis is to look at the productivity of the production factor labour in particular (see for a discussion in detail Gutberlet 2002). The main problem with GDP per employee is the incorrect economic picture that is given due to commuters, since GDP is measured at the working place and not at the place of living. GDP levels on the local level are not available for Japan, so the development of jobs and establishments are included

- in the comparison to indicate economic performance. In German sub-regions it is more common to use gross value added (GVA), in the Netherlands GDP is common.
- 10 Note: the hierarchy is ranked among the top fifteen cities in any two or more categories. The ranking of economic control functions is respectively based on 100 largest banks' head offices (1995), major stock exchanges (1992), headquarters of largest industrial corporations (1993), airport international passengers (1992), largest population centres (1991), hosting or applying for Olympic Games since 1964, and Rolling Stones World Tour concerts (1995) (Short *et.al.* 1996).
- 11 In 1840, Holland was considered a too powerful province and was split up in the current northern and southern part (Van der Woud 1998). Flevoland is reclaimed in the 1950s and an official province since 1986. The Randstad city-region covers most parts the provinces of North- and South Holland, Utrecht and Flevoland. The provinces are subdivided in social-economic units (COROP), and the more remote parts north of Alkmaar, not being part of the social-economic unit, are singled out.
- 12 The productivity levels per employee of Groningen is traditionally misleading due to gas revenues counted in, regional product is in fact closest to Friesland's GDP.
- 13 Note: Until 1995, GDP is measured in factor costs; after 1995, GDP is measured in market prices, making comparisons impossible. Service are all sectors excluding agriculture, mining, fishing and manufacturing (Ecorys-NEI 2001).
- 14 The current status of Chubu region as 'engine' of the Japanese economy with highest growth levels in the past five years is explained by Toyota's presence and spin-off around Nagoya area. Kinki's (Kansai and Kyoto) decrease is related to older industrial sector structures.
- 15 The central 23 wards have decreased in size to 7.5 million, and new towns as Tama and Saitama, Chiba and Kanagawa surrounding prefectures show a rapid growth. This growth in the region was rapid and steady and led to the current 32 million inhabitants in the capital region. The table below shows the donut of central Tokyo, despite the recent strong increase of citizens in Chuo and Minato wards due planning regulations.
- 16 The production environment includes developments on the labour market, location qualities, infrastructure, quality of place, and regional government.
- 17 Direct investment are in general good for an economy, creates particularly new and structural employment of high added value, aggregates demand and increases spending, the most urgent problems of Japan's economy.
- 18 See for instance the *Randstad Overleg Ruimtelijke Ordening* (RORO, 1990: Randstad Urban Planning Consultation) and *The Metropolitan Debate* (Frieling 1998).
- 19 The interpretation of the concept by the ministry of spatial planning, however, is less progressive and ambitious than the concept the Deltametropolis Association had in mind.
- 20 Jacobs (2000) for instance shows that even on the level of the southern wing of the Randstad, including Rotterdam and Den Haag, there is hardly integration of activities. In addition, Amsterdam's policy makers recently understood that they are more and more part of a regional economic network, but that network is mainly defined as the finance, business and media industries in the northern wing that ranges from Haarlem and Schiphol to Almere, not the level of the Deltametropolis (Salet and Molenaar 2003).
- 21 This is in line with the Commission Geelhoed's conclusions (2002) to restructure the regional level in the Netherlands by limiting the number of governmental bodies and come to scale increase of the provinces, while keeping the basic structure of the Dutch state (i.e. state-provinces-municipalities) intact.
- 22 In a podium discussion organised by Metropolita Frankfurt/Rhein-Main, Frankfurter Allgemeine Zeitung (FAZ) and Medienwoche, an airport manager, county mayor, theatre director, housing corporation director, business managers and an architect were invited to discuss the future of the region with citizens (FAZ 14.II.2003). The competing regional newspaper Frankfurter Rundschau invites the airport, politicians and

- citizens in an open *Rhein-Main-Dialog* to discuss the future development of the airport and the impact on communities (FR 12.II.2003).
- 23 *Frankfurt Rhein-Main and Friends* is another initiative of international managers that are related to Frankfurt and supported by the Chamber of Commerce (IHK) and *Wirtschaftsinitiative-Metropolitana*. The aim of this association is to apply personal contacts of managers, ministers and ambassadors to use the opportunities of the economic specialisation and regional competition (FR 12.II.2003a). In order to use these opportunities, close relations are built with other globalising city-regions, to start with Greater Zurich Area. The chair of the *Vereinigung hessischer Unternehmersverbände*, leads a fourth initiative for regional cooperation: location marketing (FR 7.II.2003). The city marketing's aim is to bring Frankfurt Rhein-Main in the top ten of leading city-regions in the world. A fifth attempt for regional cooperation is initiated by a cooperation of nine Chambers of Commerce. This *IHK Forum-Rhein-Main* encourages local Chambers of Commerce, with Hanau as chair, to cooperate and exchange knowledge.
- 24 The International Design Expo and Aichi World Exhibition (Nagoya), Food festival (Sapporo), Flower exhibition (Osaka), Science Exhibition (Tsukuba) and Olympic bids (Tokyo, Nagano; Osaka, Nagoya) are examples of this trend (Douglass 2000).
- 25 In Mitsui-Fudosan's vision (2002), Tokyo is subdivided in a central zone, historical and cultural zone, emerging zone for IT content, waterfront, multinational and urban-type manufacturing zone. Outside Tokyo, the satellite metropolises should be developed towards an eastern (Chiba-Narita), southern (Yokohama-Kawasaki), northern (Omiya-Urawa) and western gateway (Hachioji-Tachikawa) to Tokyo.

## 3 Cityports in the city-regions

### 3.1 Introduction

The analysis of the economics of globalising city-regions' development shows a variety of locations that are catching up and getting connected to the international network, and other locations that lag behind. The focus in academic debates on local development and local clustering in the 1990s, in order to make these places competitive, is increasingly criticized (Boschma and Kloosterman 2005). Martin and Sunley (2003) even argue that it is almost impossible to draw geographical boundaries for economic activities, since many different corporate inter-firm activities take place at different spatial scales at the same time, and the spatial range of these activities is unlikely to stay stable over time. In order to deal with this problem, the suggestion of Rutten and Boekema (2004) is followed to see spatial processes as the outcome of economic activities instead of starting with geography. In other words, the cityports, seen as a traffic node, place to stay, and port to the city-region discussed in this chapter is the outcome of the economic development of the city-region discussed in the previous chapter.

In this chapter the following question (1b) is addressed: *'which cityports can be distinguished inside the city-region and to what extent do these cityports contribute to the economic development of the city-region?'* The concept of the cityport, her typology, and dimensions are introduced in section 3.2. The cityport should be seen as no more than a tool to understand and frame the increasing poly-centralisation of economic activities in the city-region. It therefore aims to provide insight into the complex relationship of transportation, urbanisation, and economic activities. In sections 3.3, 3.4 and 3.5, the cityports in the Randstad, Frankfurt Rhein-Main, and the Tokyo Metropolitan Area city-regions are analysed. In section 3.6, comparisons are made and conclusions are drawn.

### 3.2 Spatial economic dynamics and cityports in the city-region

Within the city-region economy, on different spatial scales, economic specialisation takes place when the market size increases by a higher critical mass or regional integration (see chapter 2). This specialisation is found on the individual level, on the level of economic clustering in the cityport, and on the level of cities as well. On the one hand, specialists cluster and benefit from agglomeration advantages. This can improve the quality and level of services towards an international competitive level. In addition, the diversity of economic activities in the cityports makes the city-region less vulnerable for economic changes and gives a broader basis for economic performance. This trend focuses on the position on the international market place and requires establishing new connections between actors on a variety of levels, or what Salet, Thornley and Kreukels (2002) call 'interconnectivity.'

On the other hand, decreasing transportation costs increase the size of the market, and makes cross-sector exchange of knowledge and information within the polycentric region possible. Bertolini and Salet (2003) therefore focus on the way new urban interactions are connected to the outside world and how these connections can be improved ('outside in') rather than appoint the suitable locations for urban expansion inside the city-region ('inside-out'). Within this context of changing economic and urban dynamics, both outside-in and inside-out imply that the traditional competitive disadvantage of polycentric city-regions in comparison to mono-centric city-regions decreases. The variety in the internal geography of the polycentric city-regions is an outcome of changing socio-economic patterns. The traditional downtown is therein no longer the only centre in the region, but one of the centres. Peter Hall (2001:73-4) categorises six different kinds of locations in the polycentric network, here referred to as types of cityports, to understand the internal geography of the city-region: traditional downtown centres, new business districts, internal edge cities, external edge cities, remote edge cities, and specialised subcentres. Although Hall's overview is ideal-typical, it is useful for a better understanding of polycentric regional economic dynamics in the city-regions.

#### *Types of cityports*

As argued above, traditionally the face-to-face contacts for businesses were limited to downtowns or central business districts (CBD). The *traditional downtown centre* is within walking distance to public transportation, and in Europe often near central train stations. The infrastructure dimension is therefore predominantly transit-oriented. The downtowns include the oldest informational services as banking, insurance, and government. These traditional centres show, depending on the location, a high level of inhabitants and labour force (European downtowns) or economic activities (American CBD's). Examples are London City, Lower Manhattan in New York, and Marunouchi in Tokyo.

Economic activities that expanded in the 20th century, such as corporate headquarters, media, and new business services (advertising, PR, design), cannot afford the high prices of the traditional centres, do not fit in the CBD, or needed more working space, can be found in new business districts or *new business district* (NBD). The NBD is often located near prestigious residential quarters and depends more on car accessibility and less on public transportation than the downtown centres. Examples are London Westend, Midtown Manhattan, and Roppongi in Tokyo.

The pressure of space in the traditional centres can also lead to a speculative redevelopment of older industrial or transportation sites, which Hall defines as *internal edge city*. London Docklands, Paris La Defence, and Tokyo-Shinjuku are outspoken examples. These internal edge cities have been recently redeveloped and offer a mixed and progressive urban environment with good car accessibility for a variety of economic service activities.

The *external edge city* is often located on the axis of the airport or new high-speed train stations. Therefore, the economic dimension of this cityport is internationally oriented without the need to be located in traditional downtown. Furthermore, in locations as London Heathrow, Amsterdam Schiphol and Paris Charles de Gaulle, a concentration of jobs and inhabitants is required on calculable driving distance, not on walking distance to the neighbourhood as in the standard business centres.

Economic activities that are more standardised cannot afford the locations in the city itself and do not need the urban dimension of the city directly. At 50 kilometres distance, often located



near train stations, *outermost* or *remote edge city* complexes are found for back offices, and research and development. Examples of remote edge cities are Reading in England, and Shin-Yokohama and Omiya (currently Saitama City). The urban dimension is with the economic dimension here less developed.

The sixth type of cityport that can be distinguished in the internal geography of city-regions are *specialized subcentres*. These locations are centres of education, entertainment, sports, shopping, and conventions. They have in common that they tend to function more independently from traditional centres and attract customers by their unique specialisation and convenience in economic activities. The locations are often affordable and well accessible by car and range from reclaimed or recycled land to traditional centres- for instance Tokyo Waterfront and Harvard and Cambridge campuses in Boston. Furthermore, specialised subcentres do not require a concentration of jobs or inhabitants in the direct environment; however the specialized centres do require a metropolitan market within driving distance.

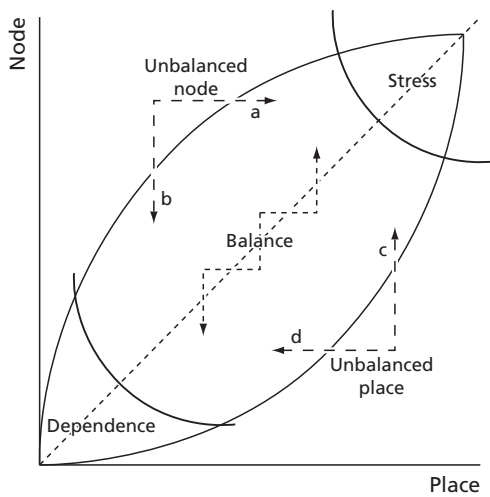
In the polycentric structure of the city-regions, all of these locations are accessible, are more or less close to urban centres, and show a variety of economic activities. According to Hall (*ibid.*), the specialisation of economic activities is through the polycentric pattern increasing, where cityports develop a profile that is suited to the location. Of course, a typology is a simplification of the spatial economic realities, but offers a basic insight into the dynamics of locations in the globalizing city-regions. Second, it is important to be aware of differences in scale. For instance, the 50 kilometres norm for remote edge cities is understandable for Tokyo standards, but these locations might be found to be on a smaller scale of ten kilometres distance in the Randstad.

It is remarkable that all of these places focus on the service economy sectors. For the Randstad, Frankfurt Rhein-Main, and Tokyo, we will test the case studies based on these six types of cityports and see whether a further differentiation is necessary. First, however, it is necessary to take a closer look at the cityports' characteristics by focussing on the economic activities, infrastructure accessibility, and urbanity.

#### *The node-place model*

The course of life, careers, and daily activities such as care taking, shopping, and leisure keep citizens increasingly on the move in the city-region. Before, the socioeconomic patterns (or *civitas*) were within the same place or city (*urb*) (Bertolini and Dijst 2000). Nowadays, these socio-economic and physical dimensions are disconnected, and socio-economic activities take place in a variety of places, and are not limited to meetings in traditional centres. During a day, these environments show a certain amount of diversity, intensity, and volatility of visitors and visits. Major examples of these locations are airports, railway stations, and urban squares on the local level or the mobility environments of intensively used cities compared to rural villages on a regional level. Bertolini and Dijst (2000) therefore use a wider definition of accessibility of nodes or centres: it is not only the number of locations that are able to be visited at the transportation node, but also the diversity of activities at the location, and the final group of costumers as end-users. This background is part of the node-place model and needs further elaboration.

The model introduced and elaborated by Bertolini contributes to understanding the relationship of urban planning and transportation, which fits in the general trend of regional planners to re-emphasize the importance of infrastructure as structuring and generating urban developments



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Figure 3.1 The node-place model (Source: Bertolini (2005))

(see WRR 1998). In his node-place model (see Figure 3.1), Bertolini (2000, 2005) argues that the accessibility of the node needs to be in balance with the activities that take place at the node. In this manner, activities are well accessible and transportation networks are frequently used. The accessibility of the centre is expressed by node value, and the activities taking place at the node is expressed by place value.

Figure 3.1 shows five ideal-typical situations, with a balance between node and place around the diagonal line, and locations that have a lack of balance between node and place outside of the balloon area. First, along the middle line are balanced locations, where node and place values are equally strong. Second, in the left bottom, there are a lack of activities and infrastructure due to a general lack of demand, e.g. the countryside. Third, in the right top, locations are under stress due to a combination of heavy infrastructure at the node and many activities that take place at the place. These locations are, for instance, important railway stations in downtowns. The other two ideal-typical situations show imbalance between node value and place value. The locations left in top suffer from an overkill of infrastructure in relation to the limited number of activities taking place. The right-end bottom of Figure 3.1 includes locations with a large number of activities and an insufficient supply of infrastructure. Bertolini's idea is to balance the locations that have an imbalanced node value and place value. Either investing in infrastructure (in the case of lacking infrastructure), or reducing or increasing the number of activities by planning regulations (in the case of investments or disinvestments in the unbalanced locations (*ibid.*) can achieve this.

Here we use the node-place as well as a tool to explore the internal geography of the city-region. It offers the opportunity to go further and deeper than the characterisation of types of locations in the polycentric city-region seen by Hall. Groenemeijer and Van Bakel (2001) have already applied the model to the Randstad city-region, and later the model was applied to Basel (Bettler 2005).

In the cityport model (Figure 3.2), the node value is seen as the infrastructure dimension of the cityport. It expresses the accessibility of the cityport in the city-region. In addition, the

place value is seen as the urban dimension of the cityport. The urban dimension expresses the concentration of citizens and jobs in the cityport. Since this thesis emphasises the importance of economic activities as the starting point of urban and regional developments, we extend the cityport model with the economic dimension. This economic dimension expresses the space productivity of the cityports: in other words, not the number but the added value of the economic activities taking place in the cityport. These three dimensions will be further introduced below.

*The infrastructure dimension of the cityport*

As chapter 2 has shown, infrastructure is an important element in the quality of the business environment, and co-determines the investments of entrepreneurs. The infrastructure dimension of the cityport model is based here on the node value. In order to make the case studies comparative, the model as developed by Groenemeijer and Van Bakel (2001) is taken as a starting point and adjusted.<sup>1</sup> In their application, the node value is the sum of modes of transportation and directions, respectively ‘connecting value’ and ‘unlocking value’. The availability and types of connections – cars, trains on different service levels, calculate the connecting value. The unlocking value is calculated on the number of unlocking connections within three kilometres.

*The urban dimension of the cityport*

The second element of the cityport model is the urban dimension, expressed by place value. The place value is ideal-typically based on the number of citizens and the number of jobs within 3 kilometres radius of the location. The number of citizens and employees have a considerable contribution to the development of activities at the place and therewith the development of the cityport. Unfortunately, in the case studies, these jobs and inhabitants densities are only available on the local level in the Randstad city-region, and turns out to be impossible to collect in the other case studies. Therefore, in the case of the urban dimension as a condition for urban development in cityports, the municipal level is chosen.<sup>2</sup> The urban dimension then expresses the density of citizens and workers.

*The economic dimension of the cityport*

Adding the economic dimension of the cityport has two main purposes. First and most importantly, it administers justice to the focus of a more important position of the economy, as argued in chapter 2. The economic dimension is seen as a crucial condition for spatial developments and is therefore central in the cityport concept. Second and more practically, it can relieve the problem of lacking data to determine the place value that expresses the urban dimension of the cityport. This needs further explanation.

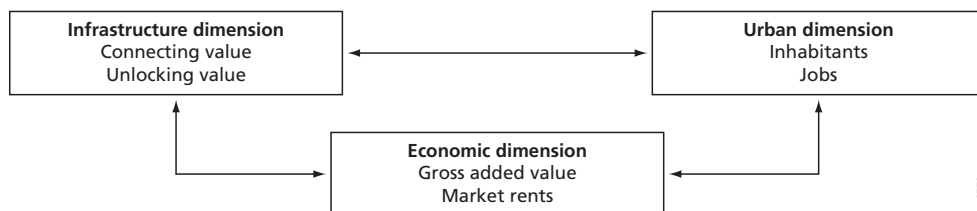


Figure 3.2 The cityport model

The economic dimension of the cityport can best be expressed by 'space productivity', i.e. the added value per square kilometre at the cityport. These values for the Netherlands' main towns and cities have been calculated and published in Elsevier (2002). For Frankfurt, these data is only available on the municipal level. The tool of space productivity disadvantages cities and towns with larger non-urban surfaces. Furthermore, such an attempt does not administer justice to the variety within the city's territory. For tax-privacy and legal reasons, in Japan there is no local data on labour productivity.

For these reasons, additional indicators might provide a better comparison of the economic dimension of the cityports in different city-regions. In economic geography and urban planning, analysing real estate developments provides insight in local and regional concentrations of economic activities. In general, higher demand and higher added value activities can and often will afford locations with higher rents. There is however no one-to-one relation between space productivity and rents since densities might vary.<sup>3</sup> Another objection is that other factors other than added value contribute to the price setting of the location: specifically, oversupply or undersupply and planning regulations. Despite these problems, analysing the real estate market will help to determine the place value and to understand the phenomenon of established and new large-scaled polycentric development in the globalizing city-region.

### 3.3 Cityports in the Randstad

In the analysis of the spatial and economic dynamics of the Randstad, we will explore the city-region's cityport development. First, the internal geography of the Randstad is introduced by analysing the types of cityports. This offers a rough overview of the locations that are of strategic importance for the economic competitiveness of the city-region. Then, these locations are analysed by the dimensions of the cityport model. Therefore, the economic dimension of the cityport, with real estate market developments and space productivity are explored. International real estate agencies provide comparable data for the case studies. In the Netherlands, it is common to distinguish the office market, industrial locations, and retail as commercial real estate markets. Measuring the productivity of economic activities in the city-regions will follow this. The second dimension of cityport development is the accessibility of locations in the Randstad. Third, levels of densities of jobs and inhabitants will provide insight to the urban dimension of the cityport. Finally, a synthesis is made of the dimensions and types of cityports in the Randstad. In 3.6 comparisons with Frankfurt Rhein-Main and the Tokyo Metropolitan Area are made and conclusions reached.

#### *Types of cityports*

Holland's rapid economic development in the Golden Age era (17th century) can be ascribed as the success of cities such as Amersfoort, Amsterdam, Leiden, Den Haag, Utrecht, and Rotterdam, which acted as individual merchant city-states, separated by the polder wetlands. These cities have sustained their merchant downtowns with canals running through the cities. Rotterdam, bombed during the Second World War and rebuilt in post-war modernist style, is a notable exception. Skyscrapers in downtown Rotterdam are rent by accountants and financial services. Furthermore, Rotterdam has a concentration of architecture firms and related industry in the downtown area (Kloosterman and Stegmeijer 2004).

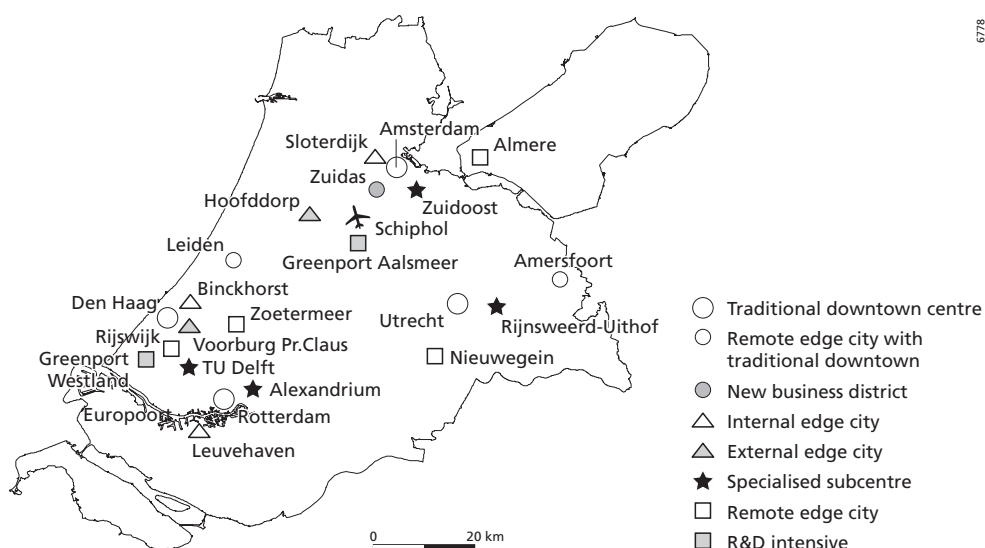


Figure 3.3 Cityports in the Randstad city-region

Den Haag remained the classic 17th century downtown that currently accommodates the government, international organisations, and embassies. The downtown expanded with high-rise offices buildings in a new centre for telecommunications and insurance companies, as well as ministries, due the limited locations for development at the cities' borders.

Utrecht's 1960s and 1970s experiments with modernist high-rise in the downtown area were limited to Hoog-Catherijne, the shopping and convention centre near the railway station with the most transfers in the Netherlands. The geographical centre of the Netherlands makes the city attractive for corporate headquarters that only operate in the Netherlands (NEI 2001). Leiden and Amersfoort are smaller in size and the stations area redeveloped, and the cities' central location and lower prices make them especially attractive in the economic booming period of the 1990s (Elsevier 2002). Therefore, these cities can be categorized as remote edge cities with a traditional downtown.

Amsterdam protects her *traditional downtown* as national monument with strict planning regulations, and high-rises are limited to the area where the subway is constructed. As a consequence of the downtown protection, car access is poorly developed in the downtowns of Amsterdam and Utrecht and industries that are car-based fled the cities or settled in the city's surroundings. Knowledge-intensive activities and face-to-face contacts in the media sector and other creative industries, as well as knowledge-intensive services remain of continuous importance for the downtown centre of Amsterdam (Kenniseconomie Monitor 2003). Currently, a quarter of all jobs in the creative industries are clustered in the greater Amsterdam region, mainly in the downtown and southern ward.

The Amsterdam downtown still includes the national stock exchange and smaller banks, but financial and legal services increasingly leave and cluster at the southern ring road, near the railway station and close to the airport, or even leave for London (Engelen, unpublished). This

Zuidas area develops as a new business district between city and airport, close to an attracting living environment. The airport area is attractive for international services such as European headquarters and distribution, and therefore in the 1980s and 1990s showed a rapid development of the *external edge city* in Schiphol and Hoofddorp in the Haarlemmermeer, and on the main corridor of the airport and seaport at the Voorburg-Prins Claus Plein highway intersection.

Business services and back offices that are related to the main economic sectors such as finance, follow the leading corporations to the outskirts of the city or establish independently in other parts of the city with better highway access. The redevelopment of locations at the highway and rail infrastructure intersections as new nodes of the cities' development led to *internal edge cities* in Amsterdam-Sloterdijk, Den Haag-Binckhorst, and Rotterdam-Leuvehaven. Combinations of office development, large retailers or offices, and education at campuses can also be found on these kinds of locations. Amsterdam Arena-Duivendrecht, Rotterdam Alexandrium (Capelle), and Den Haag HS are major examples of *specialised sub-centres* of commerce and offices (Metz 2002). Utrecht Rijnsweerd-Uithof with the University of Utrecht, Delft Technical University Campus, and Den Haag HS are examples of knowledge-intensive specialised subcentres in the Randstad city-region. These locations are not centres of (technical) research and development, but centres of business innovators and knowledge workers (Van Oort and Raspe 2005).

Back offices that cannot afford the rents of the central locations establish as well in the outskirts of the city and are well accessible by car. The *remote edge cities* are not the spatial distance to the major centres as Hall describes, but fulfil within Dutch distances a similar function. Remote edge cities for these back offices can be found in the new towns Zoetermeer, Nieuwegein, Rijswijk, and Rijnsweerd as well. These locations rapidly developed in the 1990s due to high prices and scarcity of business expansion space in more traditional centres. The city of Almere in the reclaimed Flevoland, has a similar function as remote edge city; economic activities that lack space or cannot afford prices of Amsterdam, and move to the spacious and cheaper area in times of economic growth. In combination with large-scaled housing construction, however, Almere continues to grow in economic hard times too (Ecorys-NEI 2001).

In describing and analysing the internal geography of the Randstad city-region, we should add the *harbour*, *greenports*, and *cargo centres* as major centres of spatial-economic dynamics to the cityport typology of Peter Hall (2001, see Figure 3.3). In terms of gross added value, jobs, and urban dynamics, these areas of more traditional industries should be addressed. The harbour of Rotterdam, until recently the largest port in the world, creates 63.000 jobs at the port itself and 276.000 jobs indirectly furthering into the city-region (Stevens 1997). The port of Rotterdam is moving out of the downtown towards the sea for larger and deeper ports, with continuous expansion plans with Maasvlakte II (Van Gils 2005).

The horticulture of the Westland area is located north of Rotterdam's harbour area. The Westland area is suffering from monoculture, lack of space, and needs sector restructuring, but is still internationally competitive (Elsevier 2002, Janssen-Jansen 2004). The greenport Aalsmeer and vicinity faces similar challenges, with a shift from production towards sector innovation, auction trade, and distribution in the flower trade (Flower Mainport Aalsmeer 2004). Nevertheless, this greenport is highly competitive on the international market (Elsevier 2002, VNO-NCW 2001). These greenports developed near the harbour and airport areas or

Dutch mainports: locations that are increasingly filled in with cargo distributions centres. These locations are included in the overview of types of cityports in Figure 3.6.

In interviews conducted for a Zuidas market consultation (Rotimex and Kolpron 2001), business leaders expect a continuation of specialisation and sorting out of cities in the Randstad. In their opinion, Amsterdam Zuidas will become the cluster of international business services, absorbing these activities from other cities.<sup>4</sup> The area includes and merges with the airport area on the west side, and Amsterdam Duivendrecht/Arena area on the east side, with links to downtown Amsterdam and rising Almere. Den Haag and Utrecht lack space for expansion, and ability and capacity to develop major urban projects as subways (*ibid.*). On the other hand, the high education level, productivity, and continuous economic growth in these two cities do not show this constitutes a major problem.

#### *The economic dimension of Randstad cityports*

The previous section offered a descriptive introduction of the internal geography of the Randstad. The importance of infrastructure and the access to the urban centres for economic dynamics is therein pointed out indirectly. The overview of the spatial and economic dynamics can be further analysed with the economy, infrastructure, and urban dimensions of the cityport. Here, we start with the elements of the economic domain of the cityports.

One profound way to determine the economic performance of a location is to measure the added value or regional product on the location level. For benchmark studies this is an increasingly important tool of analysis, but in practise toilsome. Research bureau Louter has in Elsevier (2002) measured the space productivity of locations in the Netherlands. The space productivity is therein the gross added value per square kilometre and led to a selected number of locations of high economic and spatial dynamics. These dozen locations overlap with the types of cityports introduced above.

The highest productivity as gross value added per square kilometre is in the traditional central business districts of Rotterdam and Den Haag, and to a lesser extent in Amsterdam and Utrecht. The higher densities of the high-rise downtowns of Rotterdam and Den Haag new centre, and the low-rise historical downtowns of Amsterdam and Utrecht explain this high productivity per square kilometre. The most rapid growth of space productivity in the period 1996-2001 however, is found in new centres around these main cities, in the airport area, and in medium-sized towns. Figure 3.4 shows this trend in the space productivity of Rijnsweerd near Utrecht, ArenA-Duivendrecht, Schiphol, and the medium-sized towns Leiden and Amersfoort. The Figure 3.4 also shows that the relation with office rents cannot directly be seen. In general, the Randstad's office rents are relatively equal; class A locations range between over €100 and less than €400 per square meter. Below €100, the office location market approaches the industrial sites' market with maximum rents of €80 for distributors near Amsterdam airport Schiphol.

Figure 3.4 does not show a relationship between office rents and space productivity. This can be explained by densities and heights of buildings that are strictly government regulated in the Netherlands and therefore are quintessential in understanding the space productivity and rents relationship. Office rents are, as an outcome of supply and demand on the real estate market, in general a good indicator of the (expected) space productivity of the cityport. In the Randstad

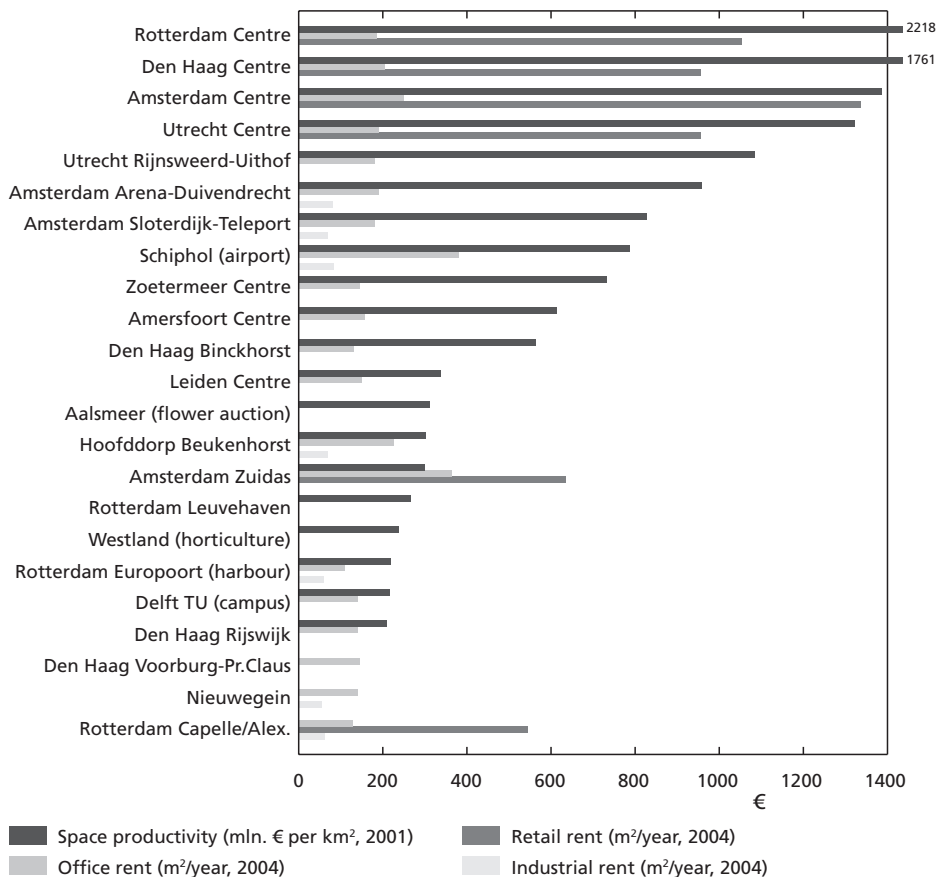


Figure 3.4 The economic dimension of cityports in the Randstad (Source: DTZ (2005), Elsevier (2002), FGH (2000))

this lead to the highest rents paid at Schiphol airport and Amsterdam Zuidas. The low average direct return on investment in these real estate market hotspots are one percent lower than the common 7% and underlines this argument (cf. IVG 2003). In 2001, the added value per square kilometre might have been still limited for these locations, but with the headquarters of ABN-AMRO and ING banks, and WTC, the productivity is currently much higher.

A closer look at the real estate market shows a differentiation in the office market between the markets of Amsterdam, the Randstad, corridors to the east, and the rest of the Netherlands in terms of price and market (DTZ 2005, Dynamis 2002, see also Figure 3.5). Rent levels in the Amsterdam capital, in particular Amsterdam-South, East, and Schiphol, are on internationally competitive levels of €300 – €400 per square meter per year. It is striking in the Randstad city-region that not traditional downtown centres but Schiphol airport demands the highest rent for offices and industrial sites. Other locations in the Randstad have lower rent levels, under €200, attracting a different market niche: the national companies. Due to market pressure and higher



costs, trends in 1999–2001 show a rise of new locations at the edges and suburbs of the main cities, thus within their own local market. For instance, the largest increase in office space use is found east of Rotterdam (Capelle aan den IJssel, 27% of the local market in 2001), near The Hague (Rijswijk, 25%), and Utrecht (Nieuwegein, 23%) (Dynamis 2002).<sup>5</sup>

These new towns along with Hoofddorp, near Amsterdam Schiphol, have leading positions at the market for industrial sites. For industrial sites, rent levels are relatively equal with a maximum of €80 near Schiphol Airport. For the retail real estate market, Figure 3.4 only includes the locations with rents over €1000 per square metre: rents only paid in the downtowns of the cities. Nevertheless, large scaled shopping malls in the edge cities of Amsterdam (Arena), Rotterdam (Alexandrium), and Den Haag (Laakhaven), are new and successful (Figure 3.3). Here, shops pay half the rent of the traditional centres.

The relevance of the space productivity indicator returns in the case of the Aalsmeer flower auction and Westland horticulture, where relatively low rents are paid for agriculture land, but in these greenports internationally competitive products are developed. Aalsmeer (€311 million added value per square kilometre in 2001) and Westland (€228 million added value) have a considerable contribution to the productivity of the Randstad city region (see Figure 3.4).

#### *The infrastructure and urban dimension of Randstad cityports*

The economic dimension of the cityport is related here to the infrastructure and urban dimension of the cityport. Due to a lack of data, in particular for the place value of the case studies, we cannot draw conclusions in terms of balanced and unbalanced nodes and places in the node-place model of Bertolini. Figure 3.5 however provides insights in the spatial and economic development of cityports in the case study city-regions. Densities are drawn from local statistics. Details for node value calculations can be found in the appendix.<sup>6</sup>

Schiphol Airport and Amsterdam Zuidas have by far the best access, or highest node value, in the Randstad city-region. Figure 3.5 furthermore shows the importance of the connectivity of the downtown centres of Amsterdam, Leiden, and Amersfoort in relation to public transportation. Light rail infrastructure and airport access, in combination with the ring road, leads to the high node values of Amsterdam's subcentres in Duivendrecht, Sloterdijk, and Zuidas. Greenports have the worst access to infrastructure amongst the selected cityports in the Randstad city-region.

Figure 3.5 shows furthermore the positive relationship between the rents and the accessibility in general. It is not remarkable that locations with better access are more expensive, but it is not a necessity. For instance, there are some exceptions of relatively low rents for well accessible locations. The centres of Duivendrecht, Leiden, and Amersfoort have relatively low class-A office rents compared to the accessibility. This might explain the rapid development of these locations in the past decade in terms of space productivity under growing economic pressures (Elsevier 2002).

The urban dimension of the cityport is the density of jobs and inhabitants. In international comparison, this can – different from the economic and infrastructure dimensions – only be measured on the city level. There is no direct relationship between the former dimensions and the urban dimension since the spatial scale of measuring is different. Groenemeijer and Van Bakel (2001) measured the density or place value on the local level (although with different definitions) and came to a stronger correlation between 'place' and 'node' in the Randstad.

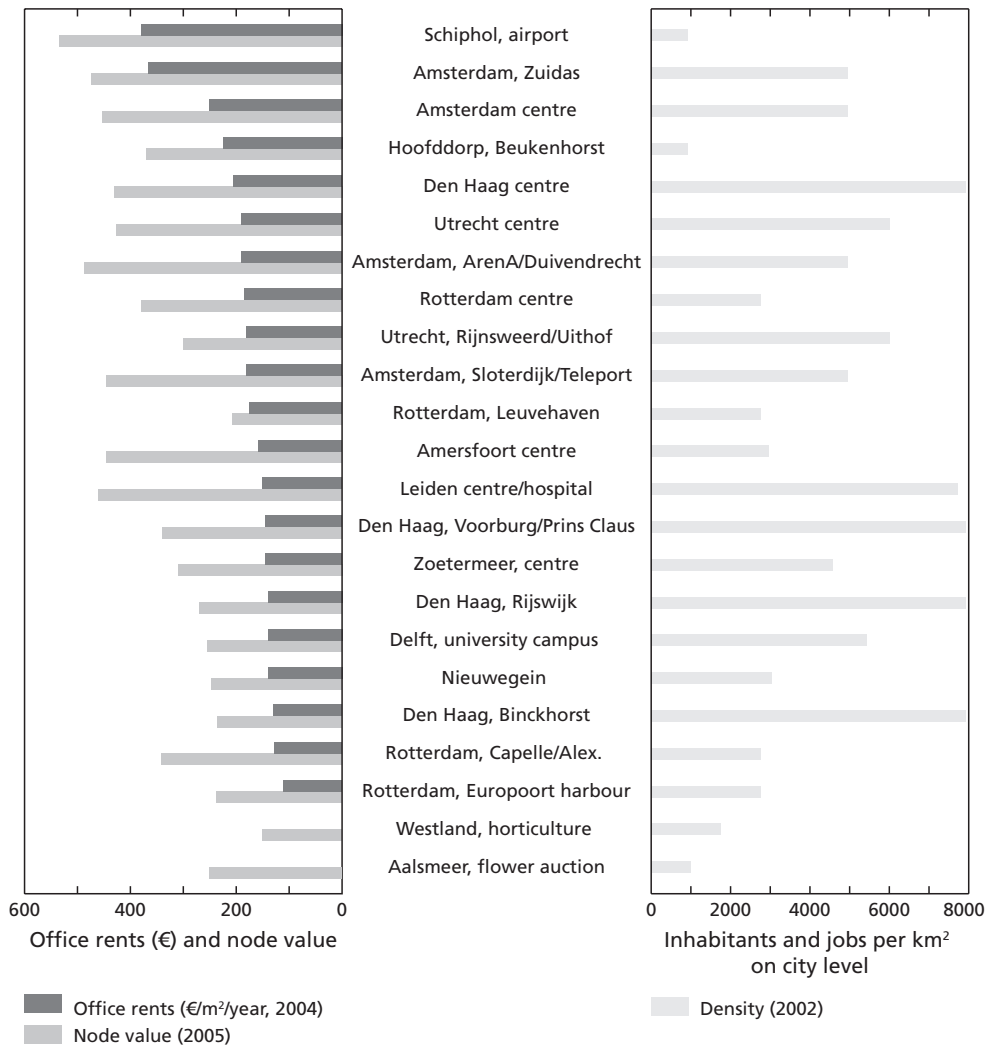


Figure 3.5 Cityport dimensions in the Randstad (Source: DTZ (2005), CBS-Statline (2005) and Appendix II)

The density problem is closely related to the city borders defined, and the ability of surrounding territories' annexation to create space for development. Den Haag and less profoundly Leiden and Utrecht have dealt with this problem for a long time (Janssen-Jansen 2004), but more recently could expand their territories. Rijswijk, Voorburg, and other cities surround Den Haag, leading to nearly 8.000 inhabitants and jobs per square kilometre (Figure 3.5). Leiden is surrounded by the Green Heart, and Utrecht by both Green Heart and Utrechtse Heuvelrug national parks. In general, densities in the largest cities Amsterdam and Rotterdam are lower than in these towns, but the total number of jobs and inhabitants are higher.

In sum, the analysis of cityports offers a mixed picture of spatial and economic dynamics in the Randstad city-region. There is no dominant centre in the city-region and the polycentric development of the Randstad has historical roots with many traditional downtown centres that are becoming leisure centres (Amsterdam) and remote edge cities (Leiden, Amersfoort). The traditional downtown centres of Amsterdam, Rotterdam, Den Haag, and Utrecht remain dominant in terms of productivity, but a significant shift towards medium-sized towns and edge cities is found. In terms of accessibility, office rents, and growth of added value, these new cityports show a better performance. The development of internal edge cities within the cities' domain with better car access can in this regard be seen as successful.

It is remarkable that not the downtowns but the external edge city Schiphol and new business centre Zuidas show the highest office rents. For business and knowledge workers, the high densities of the major cities are an important condition for the business environment. R&D is less developed and concentrated in the Randstad, and is less dependent on this urban factor in the Randstad city-region. In the remote edge cities of Rijswijk, Nieuwegein, and Zoetermeer, car access is a major quality of the business environment, and public transport is less well developed. In specialised subcentres, both public transport and car access are well developed. Finally, despite white-collar workers' dominance in globalizing city-regions, trade and distribution in cityports as greenports, airports, and harbours continue to be important and internationally competitive sectors.

### 3.4 Cityports in Frankfurt Rhein-Main

In this section, the internal geography in terms of cityports in the Frankfurt Rhein-Main city-region is introduced for a rough outline of the current economic and spatial dynamics. The branding of names as city marketing in this region is an interesting issue to observe. The typology of cityports is followed by an analysis of these locations in terms of cityport dimensions. Therefore, the real estate market is framed for the economic dimension. Then, the analysis of the infrastructure dimension (accessibility of the places) and the urban dimension (densities) are added. Finally, a brief synthesis of types and dimensions of cityports is made.

#### *Types of cityports*

The downtown of Frankfurt is the main CBD of the region: the economic nerve centre, with a slightly decreasing concentration of inhabitants and jobs, and an outstanding accessibility. The nicknames *Mainhattan* for the banking district and *Messestadt* for the convention centre's importance are common in Frankfurt am Main. Frankfurt's centre was destroyed during World War II and parts of the *traditional downtown centre* were rebuilt in the traditional 'Römer' style on the east side, which is currently the major commercial shopping centre. The west side of the former downtown developed as a modern skyscraper district.

Darmstadt also suffered from destruction in 1945, but the other cities stayed relatively intact and remained traditional downtown centres. Despite the image of Darmstadt as *Wissenschaftstadt* (science city) with a large share of R&D, the city copes with slow growth. Figures and the second highest job loss in the region. The direct neighbouring county Darmstadt-Dieburg is benefiting in the mean time. In Wiesbaden, the focus on quality dates back to the time the city was a spa resort for the rich and famous (Freund 2002). The commercial centre and business services

continue to aim at high-profile citizens and workers, with luxurious shops, business consultants, and international conventions in the capital or *Landeshauptstadt* Wiesbaden. Another older European downtown centre is Mainz, a main shopping centre.

It is not well known, but the city-region is also a major concentration of the media sector in Frankfurt and *Mediastadt* Mainz (Freund 2002). In Mainz, ZDF television headquarters and related media are concentrated in the Mediaviertel Lerchenberg as a *new business district*. The new business districts for service sectors are also found in Frankfurt-Westend, which could relieve the pressure of the CBD (Ploeger 2004). These are also typical new business districts that are located near prestigious residential areas with better car access than the downtowns. For journalists and other knowledge workers, the proximity of the downtown of Frankfurt is of major importance.

On the edges of Frankfurt's downtown *internal edge cities* are emerging phenomena as cityports. Due market pressure of the banking and insurance sectors in the economic nerve centre, former distribution and manufacturing sites are redeveloped. Examples are internal edge cities as City-WEST on a former manufacturing site, and Hanauer Landstrasse or City-East in the former docklands and manufacturing area. Where the City-WEST is a planned urban redevelopment project, the Hanauer Landstrasse is currently in a natural transition process from manufacturing and car dealers, to showrooms and business services, with infrastructure as an incentive for further investments here (Ploeger 2004).

The second best accessible location in the region is the airport, with *external edge city* development at the airport, in office city Niederrad and cargo distribution in Kelsterbach. Niederrad was planned to attract financial services to relieve pressure in the downtown, but the office city attracted services and trading companies instead (Freund 2002). Cargo and manufacturing locations are not addressed in the typology of internal geography of Peter Hall (2001) and due to their importance are added here. The *CargoCity* cityport can be found in

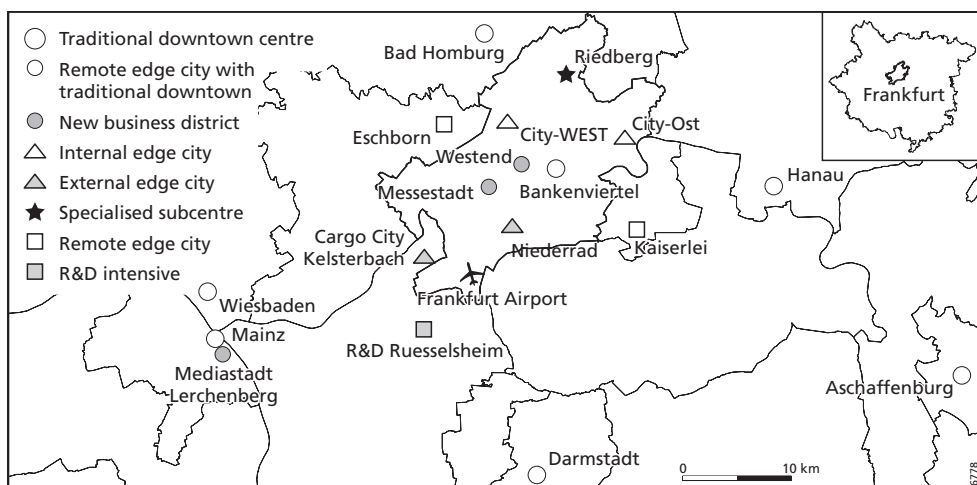


Figure 3.6 Cityports in Frankfurt Rhein-Main city-region

the smaller municipalities near the airport, but are mainly concentrated near Kelsterbach. The nearby industrial site of General Motors' Opel plant in Rüsselsheim shows a loss of jobs, but is still competitive (see chapter 2). Manufacturing in Höchst and Hanau (the city of a former nuclear plant), has had a hard time transforming into competitive new industries is part of the *Produktionsgürtel* in the southern axis of the Rhein-Main region. A transformation process into new R&D is essential in the area: activities that are less focussed on the city.

The economic underperformance of the former leather producing city Offenbach am Main is improved due better highway connections to Frankfurt and the airport. In addition, the light rail connection is another condition for the development of Kaiserlei at the Offenbach-Frankfurt border. Offenbach-Kaiserlei and Eschborn are the regional centres of back offices or *remote edge cities* (Figure 3.6). These office locations have lower rents, corporate tax advantages, and can predominantly be found in the smaller centres in the Taunus *Speckgürtel*, in Niedereschbach, and Mertonviertel. Business innovations and knowledge workers are concentrating near the university campus in Riedberg and are developed recently as *specialised sub-centres* and in the region's style with S-Bahn light rail.

The Speckgürtel along the north side of Frankfurt Rhein-Main as well as the airport will continue to be the most important economic development locations of the region. These locations are not only well accessible by car, but also ready for development, offer good conditions, are less expensive, and have lower corporate tax. In the interviews with the regional actors, however, the continuous importance of the city is addressed for the younger and higher educated employees who prefer urban life with all her facilities and multi-modal accessibility. There are enough possible top-locations available for "recycling": for instance the eastern harbour, the former freight railway tracks in the Europaviertel near the central station, and the former military settlements Gateway Gardens, CargoCity-Süd, and Zeppelinheim near the airport.

#### *Economic dimension of Frankfurt Rhein-Main's cityports*

Space productivity is measured for the Frankfurt region on the municipal level, not on the local level (Gutberlet 2002). In Frankfurt, €179 million per square kilometre is added to the economic value every year, in contrast to cities like Offenbach (€86 million) and Mainz (€84 million). Because of this high spatial scale of measuring, it makes no sense to use these indicators here for further international comparison. Therefore, we will directly focus on rent levels in the cityports of Frankfurt Rhein-Main (see Figure 3.7).

In Germany's real estate market it is not common to distinguish office locations from industrial sites; therefore a complete picture of these locations cannot be given here. Industrial sites are predominantly distribution centres near the airport and manufacturing sites in the southern ring of the Rhein-Main regions, with similar rent levels as industrial sites in the Randstad. Retailers' shop rents vary in the Rhein-Main area. Frankfurt's main shopping street Zeil costs up to €2500 per square meter: almost double the rent of old shopping areas in Wiesbaden, Mainz, and Bad Homburg downtowns.

In Frankfurt's CBD, banks and insurers are able to pay up to €645 per square meter in 2002. The centre and Westend areas located nearby require €550 office rent for class A locations. This recently dropped in a period of economic downswing and higher vacancy rates, but is still high for German standards. Despite economic problems, the airport's office locations, limited

in volume, continued to grow to €300 per square meter per year. Other major office locations fluctuate around €200, including the Mainz, Darmstadt, and Wiesbaden downtowns, and the Niederrad and Kaiserlei office cities.

Direct returns in real estate investment are in München (5,25%) and Frankfurt (5,50%), which are the lowest of Europe.<sup>7</sup> This shows a high confidence in the office market, quality, and expected value increase of the real estate in future. Considering the letting in 1999, not the rent levels, but the lack of office locations was the main problem of the office market. Particularly new offices in Frankfurt West, including the City-WEST project, could bring relief the office market. The recent 2001 economic downfall of the real estate market is in contrast to the offices that are planned and will be completed between 2002-2004. The current vacancy rate of 14% in 2003 is all-time high, but large market completions will continue.<sup>8</sup>

The economic cores are locally embedded in the Frankfurt Rhein-Main region; on the one hand sprawling over the region, and on the other hand concentrating in cityports. The continuous suburbanization of companies in Frankfurt Rhein-Main can be described as a 'centrifugal process' from the centre of Frankfurt further outside.<sup>9</sup> The centrifugation geared at the end of the 1980s with a diversity of back offices in the Taunus Mountains: isolated office locations, modern business parks, and office cities (*Bürostadt*) as edge cities. Amongst them particularly credit and insurance companies, and research institutes left the downtown of Frankfurt and settled in Niederrad, Offenbach Kaiserlei, and Eschborn-Süd.

#### *Infrastructure and urban dimension of Frankfurt Rhein-Main's cityports*

The accessibility of Frankfurt Rhein-Main has three main assets: it is the centre of air transport in Germany and a central node in the train and highway infrastructure. High speed trains in all directions and airplanes to 117 destinations contribute considerably to the region's accessibility (see appendix). Furthermore, the German regions are famous for the widely developed *Schnellbahn* and *U-Bahn* light rail and subway systems that connect centres in the city-region. Finally, major international highways of European countries cross at Frankfurt.

The centre of Frankfurt has the best accessibility of the region, followed by the airport (Figure 3.7). High economic dynamics are however found in less accessible locations such as Kreis Offenbach and the towns Bad Vilbel and Eschborn, where rents are lower and tax conditions favourable. Spatial-economic development is more spread over the Frankfurt Rhein-Main region and it not limited to the best accessible cityports. Figure 3.7 also shows the relationship between access and office rents in the city-region in general, where cities such as Mainz, Wiesbaden, and Darmstadt have surprisingly low rents compared to the excellent infrastructure access.

For future spatial and economic development, Frankfurt airport is the most important business location. The connection to the airport improves the position of Mainz, Wiesbaden, and Frankfurt. In particular the new high-speed train connection of Wiesbaden will improve the accessibility of the state capital and is an incentive for economic and spatial dynamics. Freund expects future economic development in Niederrad, despite the scarcity of locations; that Eschborn can expand in the direction of the former airport area; Bad Vilbel has a resource of locations near the Frankfurt ring road; and Offenbach-Kaiserlei will soon be better connected to the Taunus region where managers live (Interview Freund 2003). All of these locations show the increasing importance of the road infrastructure in the Frankfurt Rhein-Main city-region.

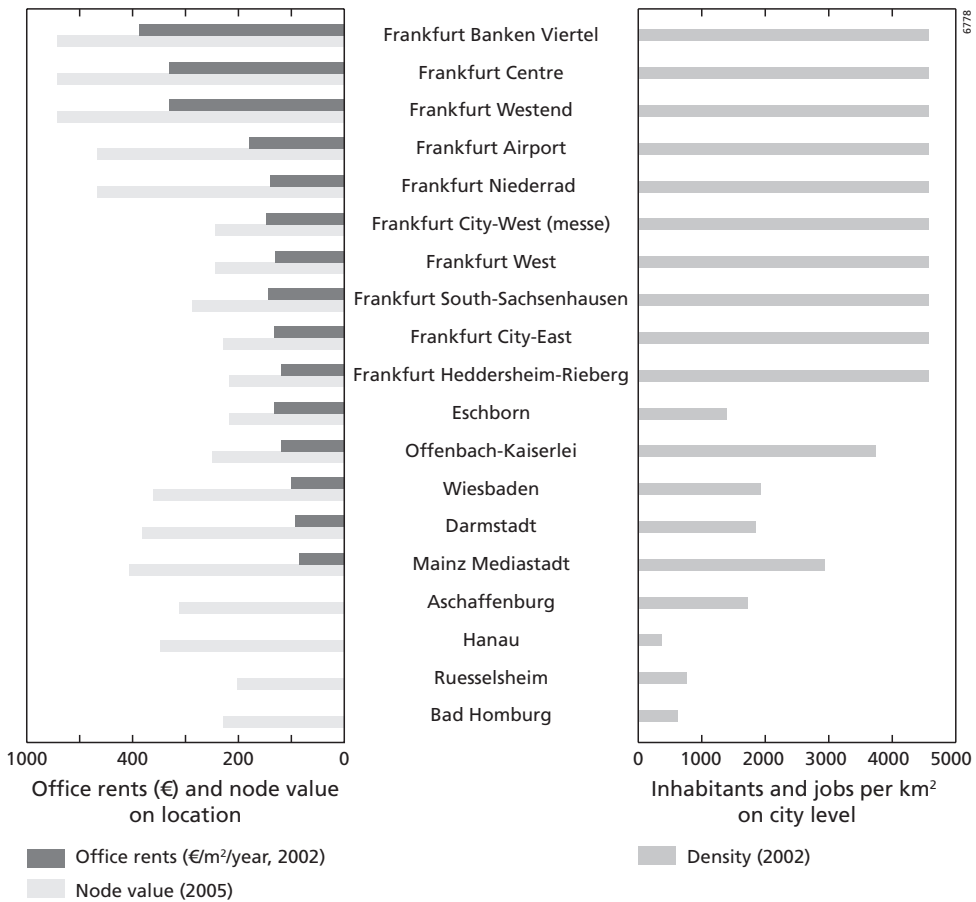


Figure 3.7 Cityport dimensions in Frankfurt Rhein-Main (Source: CWHB (2002), SBA (2005), Appendix II)

Figure 3.7 also shows the urban dimension of the city-region's cityports. The urban dimension expressed by the number of jobs and citizens per square kilometre, is measured on the municipal level and therefore shows no variation between the cityports of Frankfurt. The misbalance of a relative high number of jobs and a relative small number of inhabitants makes the average number of jobs and citizens on a square kilometre in Frankfurt limited to over 4500. Offenbach am Main comes close with a reverse balance of jobs and citizens compared to Frankfurt.

Since the urban dimension is measured on the city level it cannot be directly compared with the economic and infrastructure dimension of the cityport. Therefore, it is most interesting to look behind the Figure at the trends in the region's labour market. Despite the average slight decrease of employment in Frankfurt itself (-811 jobs between 1996 and 2000), a steady growth can be found near the airport in the county Groß-Gerau (Kelsterbach, Mörfelden-Walldorf), and the county Offenbach (Neu-Isenburg, Langen). Locations with average densities are growing faster here, in particular in times of economic pressures such as in the 1990.

In sum, Frankfurt Rhein-Main has a wide variety of cityports, with a strong local identity. This identity is not only marketed successfully with labels such as *Wissenschaftsstadt* or *Messestadt*, but is deeply rooted in the economic sectors and social traditions. Although Frankfurt is the nerve centre, the quality is mainly hidden in the variety of cityports in the region. Frankfurt is, unlike the other cities in the region, not a typical European downtown centre, but a combination of rebuilding the traditional downtown with an American high-rise-style CBD. That centre benefits from good infrastructure on the one hand and the geographical position as the urban core on the other hand. The other cities with older centres choose their own market within the regional profile, and have good infrastructure access. Spatial and economic dynamics near Frankfurt have led to a development of a variety of edge cities near the downtown, in new business districts near attractive housing areas for newer economic activities (Frankfurt-West, Mainz), and redevelopment of older industrial sites (City-West, City-East). These urban dynamics also led to sprawl into the Rhein-Main region. Examples are the edge cities that are more car-dependent, have lower taxes, and demand lower rents. These external and remote edge cities can be divided in the back offices in the northern rim, and distribution and R&D-intensive manufacturing at industrial sites and cargo centres in the southern rim. With the latter category we add two types of cityports that are competitive and of strategic importance to the original model: the CargoCity distribution near the airport in Kelsterbach and the R&D-intensive industrial production site in Rüsselsheim.

### 3.5 Cityport in Tokyo Metropolitan Area

By introducing the types of cityports in the Tokyo Metropolitan Area, difference in size and intensity of spatial and economic dynamics compared to the previous case studies should be considered. In the world's largest city-region, two dozens locations are distinguished as centres of spatial and economic dynamics. In Tokyo, some of the town-in-town are branding their names with the English additive '-City.' The 25 locations in the Tokyo Metropolitan Area are selected by a variety of indicators: the type of cityport, and the dimensions of the cityport: economy, infrastructure, and urbanity.

#### *Types of cityports*

In the analysis of the polycentric structure of the Tokyo city-region, it becomes clear that the types of cityports, based on Hall's typology, are not sufficient yet. A highly urban and economically profound area such as Tokyo develops a variety of locations as cityports that need to be added. In particular here, commercial centres, leisure centres, and culture centres need further analysis, in addition to the business centres, edge cities, and subcentres.

Tokyo's central business district is situated around Tokyo Station. Urban dynamics spread into Marunouchi, Otemachi, Yerasu, Nihonbashi, Kasumigaseki, and Ginza as the *traditional downtown centre* (Figure 3.8). Marunouchi is Tokyo's premier office location, conveniently located between Tokyo Station and the Imperial Palace (Cybriwsky 1998). The Mitsubishi Group owns most of the land here and the corporate headquarters are concentrated in this CBD of 10 stories. The area is mainly for offices; shops and restaurants are rare, which will change after the completion of the redevelopment plans.<sup>10</sup> The newer Otemachi district, north of Tokyo Station,



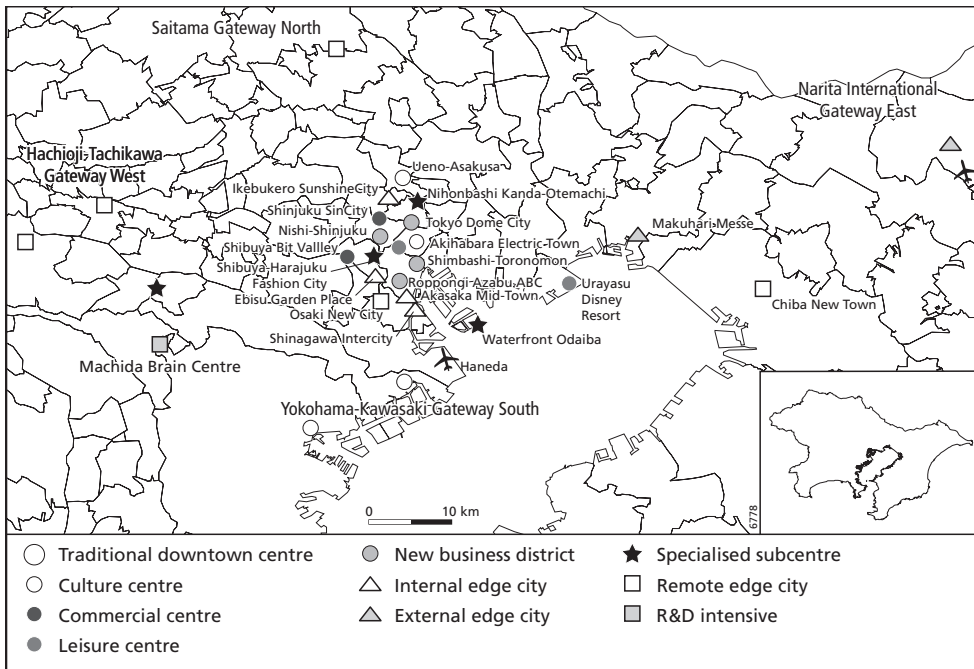


Figure 3.8 Cityports in Tokyo Metropolitan Area

is the spillover area of Marunouchi for banks, publishers, and telecommunication. Here is also Akihabara, which developed from ‘Electric Town’ into subculture centre. Ginza is the most famous upper-class shopping district in Japan. Its fame dates from expansion and sale records in the heydays of the bubble-economy.” South of the Imperial Palace is the Kasumigaseki district, where most ministries and *Diet* (national parliament) are concentrated.

Nihonbashi is the oldest part of Edo-Tokyo and the location where national banks, stock exchange, and many hotels are concentrated. However, the area is more a *new business district* than a traditional downtown due to the dominating back offices and business hotels after drastic modernist redevelopment in the 1970s (Cybriwsky 1998). This area is the subject of Mitsui-Fudosan’s recent redevelopment plans as a major landowner. Nihonbashi did not offer enough space to accommodate all dominant economic and political management functions. Therefore, *new business districts* developed in Hamamatsucho, and recently Shiodome, with a concentration of headquarters for newer business activities such as computers. These locations are also well accessible by the Yamanote loop line that shapes the polycentric network of the city-region. On the west side of Tokyo’s central 23-wards, the Tokyo Metropolitan Government has established another newer business district. Since the end of the 1980s, Nishi-Shinjuku has accommodated the City Hall, hotels, banks, and corporate headquarters high-rises. It strategically shifts the development of Tokyo into the western direction (*ibid.*).

The corporate headquarters, related offices, restaurants, and hotels replace manufacturing, transportation, and warehousing during and after the bubble economy in the centre of Tokyo. The redevelopment of industrial sites led to the rise of *internal edge cities*. Shinagawa's Intercity, a new mixed-use but predominantly office location is connected to the high-speed train station, but turns the back to the harbour and fish market on the east side. Ebisu Garden Place is a redevelopment project on the site of the former Yebisu beer brewery, and has a mixed-land use, fashionable, and international character, currently attracting investment bankers.

The 1980s waterfront development in the Tokyo Bay was Tokyo's answer to plans of relocating the capital to a safer and less-dense area (Saito 2002, Sorensen 2002). On the reclaimed islands in the Tokyo Bay, a variety of land uses are located, varying from public facilities of power plants, gas, and sewerage disposal, to a heliport, factories, golf parks, and entertainment, making the waterfront development in the Koto ward a major *specialised sub-centre*. The most profound development is Tokyo Teleport. Teleport was initially planned as a futuristic telecommunication centre, but after the collapse of the bubble economy and a lacking market interest, it changed ambition but kept the name. Currently, real estate in the waterfront area is slowly recovering.

South of Teleport area, Haneda airport is built on reclaimed islands and will be re-expanded. Near Haneda, Kawasaki currently enrolls plans for redeveloping the factory sites in the Kanagawa river delta. Yokohama redeveloped in the same period the futuristic port area Minato Mirai 21. MM21 has a broad range of commercial, cultural, and residential land uses, and amongst others the Landmark Tower, Japan's highest office building.

The *external edge city* is highly dependent on international connections, often located at axis of the airport or newer high-speed train stations. Funabashi-Makuhari is a new town of office development; IBM's offices, Asia's largest convention centre (*Messe*) and a business research park are located here. Makuhari Seaside Park is Chiba's competitive answer of leisure waterfront developments in the Bay area. It can be seen as a cluster with Tokyo's Disneyland, in Urayasu, a main *leisure centre*. The airport area of Narita is the main other external edge city in the metropolitan area of Tokyo. In particular, hotels, distribution centres, and airport services are attracted to the international airport and established along the motorways in the Narita area.

Parts of the Tokyo CBD spillover can be found more west in the Minato ward in Aoyama, Azabu, and Roppongi, where Mori Building redeveloped amongst others Ark Hills (1986) and Roppongi Hills (2003). These are located near the expatriated residential area of Azabu, embassies and corporate headquarters, and therefore can be categorized as a *new business district* of the expatriate communities (Mitsui-Fudosan 2002).

These 'Hills' are connected to the *commercial centres* of Shibuya and Shinjuku on the west side. Shibuya is mainly developed by Tokyu Corporation, which runs railways to Yokohama and established fashionable department stores near the station. The link of Shibuya with the international community is closely related to the flag stores of international fashion leaders in the Omotesando Street in Harajuku. Shibuya is also the city's main concentration of software and entertainment and is nicknamed 'Bit Valley.' Nearby Shinjuku, the busiest train station of Tokyo, is another major *commercial centre*, and is also called 'Sin City,' an area attracting salary-men late at night (Cybriwsky 1998).

Seibu Corporation has been of historical importance for the development of Ikebukuro as a *compound internal edge city*. High rents pushed the company's workers to the west of Tokyo. Seibu's railways connected them to the Yamanote loop line at Ikebukuro. The railroads end underground, where Seibu built department stores on top of the station. Sunshine 60, Tokyo's largest building complex of a hotel and shopping malls were built near Ikebukuro in the 1980s, making Ikebukuro a major commercial area.

The Tokyo Metropolitan Area is not limited to the traditional core (first rim) or centres in and near the Yamanote loop line (second rim). More recent spatial and economic development is due to urban pressure concentrated in the new towns and has attracted economic activities. The appointment of Tachikawa and Hachioji as growth poles of urban development in the west has made these centres of department stores, hotels, and other services near the station. A similar pattern of economic dynamics with more production and distribution can be found in Saitama and Chiba. Because of the convenient suburban life style with car accessibility and less crowded centres, the centres of the new towns have developed in the 1980s and 1990. Recently, however, due to land price drops and the focus shifts to housing in the central ward again, in particular harming the new towns with low urban qualities and bad access.

Cybrivsky describes the 'other side' of Tokyo as "*the foundation for the rest of the Tokyo economy*" (1998:168). The areas on the north-eastern side of Tokyo are the home of taxi drivers, fish markets, media, printing, and manufacturing, but is also the place where poorer people and homeless live. Ueno and Asakusa are the main *cultural centres*, with more variety and differences in product and service quality and prices than Shinjuku and Shibuya. The exodus of manufacturing out of Tokyo has affected the economies of these areas mostly in the Taito and Ota wards. Due to planning policies and urban pressure, manufacturing, R&D, and small enterprises have in the last decades been shifting to Kanagawa prefecture and beyond, making that area the *brain centre* of Japan (Cybrivsky 1998:121), joined by Tsukuba Science City in Ibaraki prefecture, north of Tokyo. These brain centres can be seen as a particular type of specialised subcentre development in the Tokyo city-region.

#### *Economic dimension of Tokyo's cityports*

Since data is not available to determine the space productivity in the Tokyo Metropolitan Area cityports, here we will focus on office rents as a relatively reliable indicator for the economic dimension in cityport development.<sup>12</sup>

Highest rents are paid in the Tokyo station area of Marunouchi and Ginza (over €1100, Figure 3.9), where redevelopment plans are made to increase the remarkably low number of high-rise towers. Nevertheless, less than ten percent are class-A offices.<sup>13</sup> Rents for these offices of €950 are paid in Minato ward. Minato has the largest concentration of international corporations and embassies and is therefore the favourite location for living and expatriates. This ward has three main office concentrations: Akasaka-Roppongi, Shiodome-Shimbashi, and Shinagawa Intercity. After Roppongi Hills and Shiodome's recent completions, the office market of Minato has made a leap forward in terms of quality. More new offices in Mid-Town and Shimbashi are to be completed in the coming years.

Nishi-Shinjuku, the area between Shinjuku station and the Tokyo Metropolitan Area has the highest concentration of skyscrapers, with rents near €835 per square meter in 2003. Shinjuku is also a popular area for high-tech firms and hotels. New buildings will add 137,000 square meters of office space to the Nishi-Shinjuku office market through 2008 (CBRE 2004, Colliers Halifax 2003, Mori Building 2004).

The airports Narita and Haneda have low concentrations of establishments and high-rise buildings, but demand respectively €935 and €830 per year in rent for offices directly at the airport (Figure 3.9). It is remarkable that Haneda, Tokyo's busiest airport near downtown Tokyo, is cheaper than Narita. This can be explained by the added value of economic activities at an international airport compared to a mainly domestic airport – issues that are discussed in chapter 4. The average rents at Haneda are still €130 higher than the high-end offices in neighbouring Kamata in Ota ward.

Concentrations of high-rises and office rents for locations in the polycentric rim are unknown but likely to be considerably lower in remote centres such as Tachikawa, Hachioji, Kawasaki, and Chiba. The recent trends show a further concentration in the central ward area.<sup>14</sup>

#### *Infrastructure dimension of Tokyo's cityports*

Tokyo's spatial and economic development is closely related to infrastructure planning (Hack 2000). Figure 3.9 offers a similar perspective on the Tokyo Metropolitan Area; most locations have a node value near 400. This means that whether the cityports are located in the older downtown area of Tokyo's central wards, or are part of the Yamanote loop line centres further in the Kanto plain, all locations have good public and road infrastructure. Even the locations with the worst accessibility from this list have train stations and highway access. Ueno, Kanda, and Marunouchi have the best access due to the Shinkansen high-speed trains that run from northern Kanto to Kyushu in the west. Locations in southern Tokyo and Kanagawa benefit from the access to Haneda airport, where Chiba and eastern Tokyo have good access to Narita airport in return. Western Tokyo (Hachioji and Tachikawa) lacks Shinkansen trains and has poor airport access, leading to a lower node value in Figure 3.9. Due to the overall infrastructure facilities, there is no significant relationship between the access of the 25 centres and office rents in the Tokyo Metropolitan Area. Nevertheless, in Tokyo office rents are still strongly related to the walking distance to the nearest subway or train station.

#### *Urban dimension of Tokyo's cityports*

In Tokyo, inhabitants and jobs per square kilometre is measured on the ward and city levels. The findings of this urban dimension are presented in Figure 3.9. The highest concentrations are found in Chuo (80.119 inhabitants and jobs per km<sup>2</sup>) and Chiyoda (79.452). Tokyo is known as an 'urban donut' (Cybriwsky 1998; see previous chapter), with many jobs and few inhabitants in the traditional downtown areas. These are almost double the densities of the other wards of the central 5-ward area with Minato, Shinjuku, and Shibuya wards. Other major, but considerably lower concentrations of jobs and inhabitants can be found in the south (Yokohama, Kawasaki, Ota), west (Tachikawa), and east (Funabashi-Makuhari). The correlation of density and infrastructure is obviously the case in Tokyo, as can be seen in Figure 3.9, where the relation with office rents cannot be found on this spatial scale.

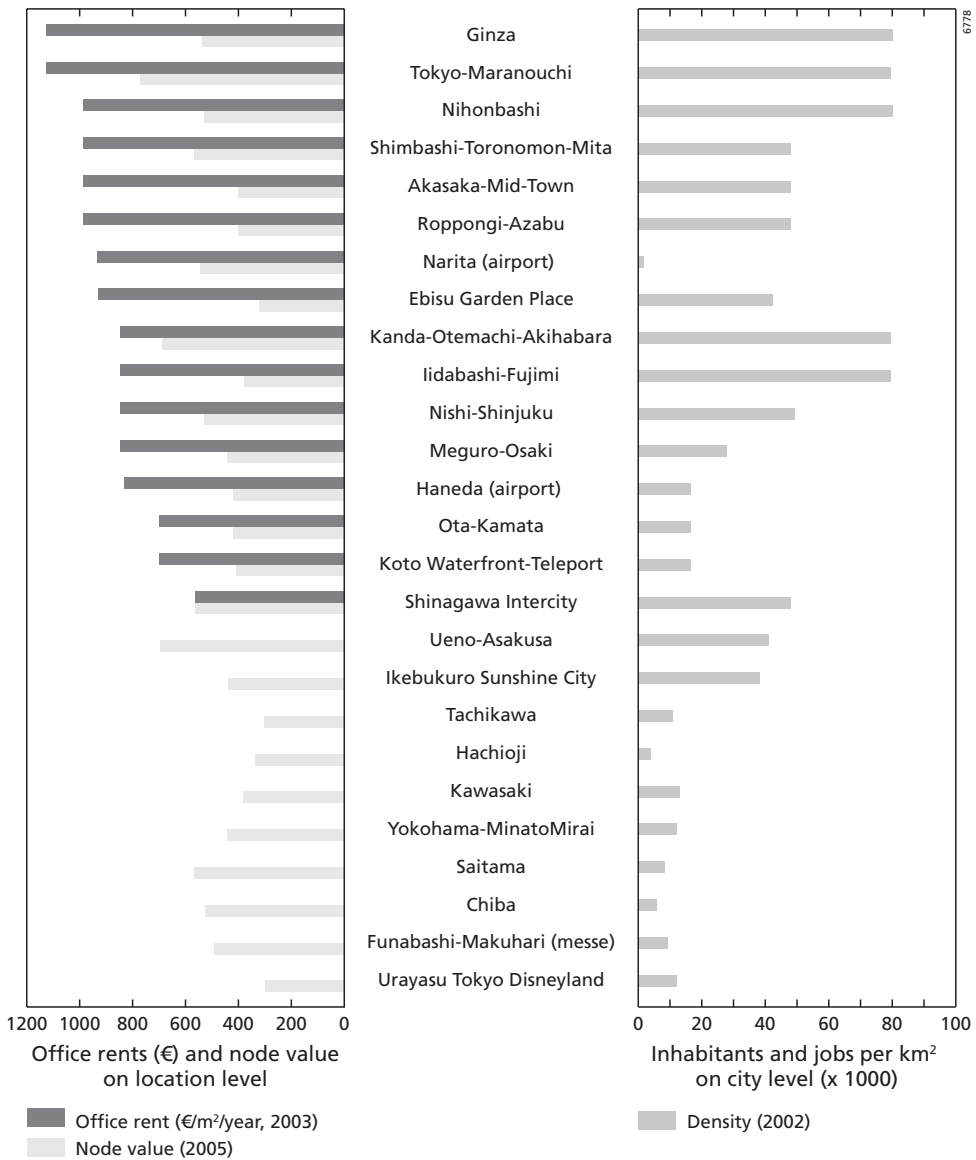


Figure 3.9 Cityport dimensions in Tokyo Metropolitan Area (Source: CBRE (2004), Colliers Halifax (2003), Establishment Census (2001), Mori Building (2004), Statistical Bureau Japan (2004), Tokyo Statistical Yearbook (2003), Appendix II)

In sum, a combination of the best-developed public transport system in the world (Takeuchi 2000), with nearby highway access, make most centres and subcentres of Tokyo conveniently interconnected in the polycentric city-region. The node values of these cityports are high and in balance with the many economic activities it attracts. In addition, the size and high densities of

the market force locations to compete and specialise. These cityports contribute to establishing the metropolitan economy. A variety of specialised cityports is found: from fashion streets and entertainment centres to electronics districts and Disney resorts. Due to this specialisation, we added new types of cityports to the original model: leisure and commercial centres. The locations develop their own profile, for instance as the 'Beer Garden Place' or 'Tokyo Dome City'. Places that lack a clear target group or profile, such as the 'compound' internal edge city Ikebukuro, or a backward economic structure such as Kawasaki, have difficult times to reinvent themselves.

In Tokyo, the traditional downtown area and new business districts are partly overlapping. The CBD has the best infrastructure access and high densities, and requires the highest rents. Urban pressure forces urban redevelopment in other centres, especially along the Yamanote loop line in internal edge cities such as Shinagawa, Ebisu, and Ikebukuro or new business districts such as Nishi-Shinjuku and Shimbashi-Shiodome. This trend of internal edge city formation can also be found in the waterfront development shore from Yokohama, Kawasaki, Haneda, Shinagawa and Makuhari. The third ring of spatial economic dynamics has lower urban densities but is well accessible, with concentrations in new town or remote edge cities such as Saitama, Hachioji, and Tachikawa. External edge city formation and R&D-specialised subcentres are even further into the Kanto region, with rapid developments near Narita airport and R&D-intensive production and research in Kanagawa and Ibaraki prefectures.

### 3.6 Comparison and conclusion

The aim of this chapter is to understand the internal geography of the quintessential polycentric city-region case studies in terms of multi-nodal development of cityports. It therefore crosses the bridge of the economic analysis of the city-region in chapter 2 and the position of the airport as a cityport in chapter 4. Two methods of cityport analysis are used to understand the internal geography of the city-region: the types of cityports (downtowns, new business districts, edge cities, and subcentres) and the dimensions of the cityports (economy, infrastructure, and urbanity). In a comparative perspective, conclusions will be drawn on the regional economic geography. This comparison is particularly relevant for understanding similar kinds of new urban concentrations between the case studies, including the airport areas.

#### *Types of cityports*

After the internal geographies of cityports in the city-regions are analysed separately and comparatively, general conclusions can be drawn on the emerging phenomenon of cityports in the Randstad, Frankfurt Rhein-Main, and the Tokyo Metropolitan Area case studies. Peter Hall's (2001) classification of the locations used here as types of cityports proved to be useful for understanding the spatial and economic dynamics in the city-region, but need further elaboration. Hall distinguishes *traditional downtown centres*, *new business districts*, *internal edge cities*, *external edge cities*, *remote edge city complexes*, and *specialised subcentres*.

First, R&D-intensive manufacturing sites need to be added. In Frankfurt, the highest added value is created in these places. In the Randstad, vegetable horticulture and flower auctions are strategic cityports in the city-region with high productivity levels too. Therefore, *greenports*, *cargo-cities*, and *R&D-manufacturing sites* are added as types of cityports.

Second, locations specialise more and more in a high-urban economy such as the Tokyo Metropolitan Area. Therefore, the category of specialised subcentres need further differentiation in *leisure centres* (Disney, Odaiba), *science cities* (Tsukuba), *commercial centres* (Shinjuku, Shibuya), and *culture and subculture centres* (Ueno, Asakusa, Akihabara). Within the polycentric city-region, branding the names of the locations, as done in Frankfurt Rhein-Main and the Tokyo Metropolitan Area is useful and is a self-fulfilling prophecy for the specialised development of locations, in particular science centres, leisure centres and commercial centres. These conclusions can be illustrated with the following major findings on cityport development in the case studies.

The traditional downtowns of the polycentric regions remain the centres with the highest space productivity due to a combination of density and high productivity per square meter of jobs in the service sector. The strategic economic sectors of finance, insurance, and legal services can be found here, such as the stock exchange and central banks. In Tokyo, Frankfurt, and Rotterdam, the downtown centres offer space for redevelopment, where the Amsterdam downtown is lacking behind in terms of infrastructure and real estate development opportunities and losing position to new business districts. In general, the downtowns of Tokyo and Frankfurt Rhein-Main have a much more dominant position in the city-region, with higher office rents and lower direct returns on investment, where Amsterdam has a more equal position amongst Rotterdam, Den Haag, and Utrecht. This underlines the longer polycentric roots of the Randstad without a dominating centre, and a natural hierarchy in the city-region.

Less traditional economic activities that are closely related to the cities are found in the newer business districts, and nearby attractive residential areas. In the Randstad this is limited to Amsterdam-Zuidas. The other city-regions have more opportunities with Frankfurt-West, Wiesbaden, and Mainz in Rhein-Main, and Shiodome, Roppongi, and Nishi-Shinjuku in Tokyo. These locations have, besides good public transportation, better car access than the traditional downtowns. Real estate market confidence for these locations are reflected in relatively high office rents and lower expected returns on investment for project developers and investors.

Internal edge cities are the redeveloped sites for economic activities in the services sector that is currently pushing aside manufacturing and distribution. Economic activities need the urban environment, but the larger space that is required pushes companies out of the traditional downtowns. Furthermore, added value is not high enough for the clustering in downtowns or new business districts. In these locations car access becomes more important. The best examples in the case studies are Hanauer Landstrasse in Frankfurt, and Ebisu and Shinagawa in Tokyo.

Not only in the internal edge cities, but also in particular in the remote edge cities, rents are considerably lower. In both kinds of places, back offices and research centres are established. Examples of remote edge cities are found in all cases on different spatial scales. In times of economic growth, real estate market pressure boosts these locations. However, when the economy weakens, the quality of location and the poorer access hits locations such as Osaki, Kaiserlei, Eschborn, and Duivendrecht-Amsterdam Southeast, with higher vacancy rates and lower rents.

There are various reasons that contribute to the development of specialised cityports in the city-regions. The natural process of specialisation of locations in integrated metropolitan economies such as Tokyo is a major incentive. The well-developed regional transportation network stimulates this process in Tokyo and Frankfurt Rhein-Main. Furthermore, branding names contribute to the image and development of the cityport: Dome City, Garden Place, Science City, Messe, and Sin

City are the often used English adjectives, or non-existing English adjectives such as mainport and greenport. Despite its smaller size, Frankfurt has based on history and regional competition developed specialised cityports. Scepticism on metropolitan ambitions and downsizing the socio-economic markets to sub-regional levels are in the Randstad hand in hand with an equalization and lack of specialisation of locations. The 1990s have shown some signs of greater differentiation between the Randstad cities, however.

#### *The cityport model*

In order to have a better understanding of the economic geography of cityports in the city-region, the cityport model with economic, infrastructure, and urban dimensions was constructed and tested in the case studies. The cityport model is based on the node-place model of Bertolini; the focus was more on economic factors. Because of a lack of comparable data, the densities and added value in the city-region could not be explored as intended. First, the relationship between office rents and accessibility is rather complicated and related to planning regulations and real estate market fluctuations. Second, data on inhabitants and jobs densities were not available on the local level. Therefore, the balance and imbalance of place and node of the cityports could not be determined exactly. Nevertheless, the comparison of cases at first and relations between cityport dimensions second show some first noteworthy results.

For the analysis of cityports in the city-regions the differences in scale are remarkable and should be noted. If we compare the city-regions, the rents paid in central Tokyo are over €1100: much higher than central Frankfurt (€600) and downtown Amsterdam (€250). After these central business districts, highest office rents, and high productivity are found at and near the airports as external edge cities: Frankfurt airport costs €300 per square meter, Narita International Airport €935, and Tokyo Airport at Haneda €835. In the Randstad city-region, Schiphol airport is even the most expensive office location (€400).

Furthermore, there are major differences between the cases in terms of accessibility. In general, cityports in Frankfurt Rhein-Main (score range of 400-900) and the Tokyo Metropolitan Area (300-800) are much more easily accessible than cityports in the Randstad (200-500). Frankfurt's downtown (score of 904 points) and Frankfurt Airport area (778) as well as Tokyo Station area (773) have the highest node value of the cases. The far distance to the airports explains this difference. Schiphol has the best access in the Randstad (535). The harbour of Rotterdam has the lowest accessibility score; this is explained by the fact that access over water is not included in the accessibility.

Jacobs (2000) explains the weak accessibility in the southern Randstad compared to Frankfurt Rhein-Main by the weak integration of the urban economies in the Randstad on the one hand, and the role of planning in the Netherlands on the other hand. Easily accessible locations develop in Rhein-Main in a natural manner and with less governmental intervention, where national and local governments in the Randstad appoint locations for development and prohibit development in other locations, but the appointed locations do not necessary have to be the best accessible locations.

In the urban dimension of the cityport, Rhein-Main and Randstad have comparable densities with respectively 2,500 and 3,500 jobs and inhabitants per square meter, versus Tokyo's 30,000 double digits densities in the major cityports. In the downtowns of Tokyo and Frankfurt, this is mainly jobs and relatively few citizens: the so-called urban donuts. Since densities are by



a lack of data measured on the municipal and not the place level, it turns out not to be a useful indicator for the place value in relation to the node value of the location.<sup>15</sup>

### *Airports*

It is remarkable for a city-region such as the Randstad that highest office rents are not paid in the CBD, but at Schiphol airport. Productivity is high and there is a considerable economic spin-off. Furthermore, Schiphol and Frankfurt Airport are the most accessible locations in their city-region. The opposite is true for Tokyo's airports. Despite the high office rents for the airports, these locations are less important for the regional economy, are less accessible, and further from jobs and citizens.

Airports as external edge cities turn out to be a peculiar type of cityports. The airport as an external edge city cityport is the physical and direct switch between the cityports in the city-region and the global connection to other city-regions. Airport areas are an interesting case here at the crossroads: international businesses at conference rooms, offices, and hotels at the airport on the one hand, and cost-sensitive distribution centres and warehouses on the other hand. A further focus to understand the spatial and economic dynamics in the competing city-regions with an institutional perspective is quintessential.

A variety of cityports as emerging phenomena are worth further analysis, but for the reasons mentioned above the airports as cityports in the city-regions are the most complicated and promising ones, and have been selected as a specific kind of cityport to be analysed in the next chapter.

## **Notes**

- 1 Airport connections are nowadays for businesses an important condition in the investment climate (see previous chapter) and therefore added to the model. Although there can be discussion on the values of the model split, airport infrastructure has a similar importance here as high speed trains. Chapter 2 also learned us about the importance of road access and therefore relative importance compared to public transportation is upgraded. Waterways infrastructure is addressed as an important positive characteristic of the Randstad's investment climate, but due to the limited number of users it is, in succession of Groenemeijer and Van Bakel (2001), left out the infrastructure dimension of the cityport model.
- 2 We acknowledge that this way of determining the urban dimension blurs the actual intent of the place value. Since not only the location, but also the wider city and city-region's critical mass of citizens and employees contribute to the development of locations, this is considered as second best. The urban dimension of the cityport therefore express the number of inhabitants and workers on the city level divided by the size of the city and express the urban density of the location.
- 3 For example, GDP per square kilometre in the Randstad is highest in the skyscraper district of central Rotterdam, but rents are lower than in the low-rise centre of Amsterdam.
- 4 De Brauw Brownstone Westbroek as a major legal service company recently clustered the Den Haag and Rotterdam offices in one Amsterdam office. Royal Dutch Shell chooses not Den Haag, but London for the corporate headquarters (Rotimex and Kolpron 2001).
- 5 However, the current economic downswing hit these new towns locations harder due to their uniformity and lack of quality, with high vacancies in the new town areas (DTZ 2005). In the early recovery stage, it is the traditional centres and higher quality locations that are leading the real estate market.

- 6 The infrastructure dimension's node value consists of the connection of the location and the number of directions. Calculations of node value are based on the appliance of Groenemeijer and Van Bakel (2001). However, more than in their research, the importance of road and airport infrastructure is valued higher in the calculations. See appendix for details. In the computations of the node value in the Randstad, the future access to high speed trains heading for Brussels and Paris are not included, as well as the improvement of the A4 motorway to an international corridor in the same southern directions. This will further improve the accessibility of Schiphol, Zuidas and Rotterdam in the near future.
- 7 Germany's largest real estate company IVG sees an important stabilizing trend in the European office market: the direct return of real estate investors balances between 6 and 7% in general (IVG 2003). This percentage is common for the Dutch real estate market; in Germany's major city-regions expected return are one percent lower.
- 8 The 2003 completions in the City (160.000 m<sup>2</sup>), City-west and Niederrad (both 145.000 m<sup>2</sup>) and the 2004 completions in west (230.000 m<sup>2</sup>), Messe (125.000 m<sup>2</sup>) and Frankfurt Airport (145.000 m<sup>2</sup>) are substantial (CWHB 2002).
- 9 Freund (2002) shows in Hessen's profile a full list of suburbanization of urban functions in the Rhein-Main region, a tradition starting in 1936 with the construction of the airport and the airport workers village Zeppelinheim until the 1998 move of the Dresdner Bausparkasse bank to Bad Vilbel (Freund 2002:256). This has led to a stabilization of job growth in the Rhein-Main core cities and a growth of almost 20% in the suburbs between 1980-1999.
- 10 The redevelopment by Japan Railways (JR-East) and Mitsubishi Estate Company of the relatively small-scaled area is delayed after severe criticism that the classic Tokyo Station, a copied variant of Amsterdam Central Station, will be overbuild by new offices. The station is one of the very few older buildings and part of the cultural heritage.
- 11 After the 1980s, Ginza lost some of it's glance, but recent new planning laws that allows higher building in exchange for more housing in the CBD area in combination of architectural highlights support the current revival of Ginza.
- 12 The information on companies and locations is tax-sensitive and the added value of companies is measured on the place of the head office – this would over emphasize the importance of head offices concentrated in Chiyoda and Minato wards. Office rents of prime locations are framed by international real estate companies – it turned out to be impossible to find rent levels of industrial sites or shopping areas.
- 13 Class A buildings are in Japan the most competitive buildings, built after 1990, larger than 200 *tsubo* and have due intelligent physical features (cables, A/C and 24 hours use), convenient transportation and earthquake prevention beyond current codes, therefore a high value for money pricing (CBRE 2004).
- 14 In the 1990s, over 50% of the buildings were completed outside the central 5 wards. In the 2001-2005 period, less than 20% is build outside the central wards and completion concentrates for 70% in Chiyoda, Chuo and Minato only (Colliers Halifax 2003). Even more remarkable is the fact that the completions outside Tokyo's 23 wards (the western cities) have been minimized from a stable market size of 15%-20% to less than 5% after 2001, a trend expected to continue until 2008 (Mori Building 2004).
- 15 The cityport model therefore needs further elaboration. There is not always a one-to-one relationship between rents and node values. One of the unanswered questions is what explains the wide range of node values in the Randstad although there is relatively little difference in office rents. Answering this is most likely related to the different economic sectors in the city-regions. Furthermore, more comparable data is required on the number of jobs and citizens on the cityport level. These issues will be discussed in chapter 10.

## 4 Airports as cityports

### 4.1 Introduction

The internal geography of the competitive city-region has shown a variety cityports, the locations that combine economic, infrastructure and urban dimensions and fulfil the role as a port, a place and a node in the city-region. The airport is one particular kind of cityport that rapidly develops due to its economic importance in the quintessentially polycentric regional economies. The city-regions in the case studies, however, preliminarily show a mixed picture of airports developing into cityports. This chapter is the final step to answer the first main research question: *what is the spatial-economic position of the airport as a type of cityport in the city-region?* Answering this question will complete the spatial-economic analysis that focuses on the economic reality behind planning. Spatial and economic factors however do not explain the development of airports as cityports in the city-region alone. Market actor's behaviour co-determines this development process in relation to governmental regulations. Therefore, it will be necessary to focus further in the following chapters on the actors and institutions that set the playing field of planning within the context of this spatial-economic picture.

In order to answer the research question, the following steps are taken. Studying airport areas can then be distinguished in the airside (aviation), landside (urbanisation) and the airport as an interface in between. First, a theoretical framework for determining the meaning of airports as cityports is constructed (4.2). The airport case studies are briefly introduced (4.3). To understand the position of airports as cityports, current developments at the airside (4.4), the landside, and with the airport as interface (4.5), require further analysis. The landside of Schiphol, Frankfurt, Haneda and Narita airports are considered via economic impacts (4.6) and urban development of the case study areas (4.7). The comparison and conclusion (4.8) answers the first main research question with regard to the spatial and economic position of the airport as cityport in the city-region and will stress the need for and importance of institutional analysis in the second part of this book.

### 4.2 Airports as cityports

Although the globalizing city-region is characterised by a variety of new and existing cityports, as has been shown in chapters 2 and 3, the focus here is on the development of the regionally embedded airport as a particular kind of cityport. The airport as a cityport has been categorized as external edge city, that creates economic dynamics with its large-scaled infrastructure of runways and terminals causing noise and safety conflicts with the surrounding land uses, particularly in the case where airports are inside the metropolitan area as at Frankfurt, Schiphol and Haneda. This section will determine the understanding of the airport as a cityport, what it is and what it's not, by focussing on quantitative and qualitative elements.

Runways, terminals, roads and rail infrastructure are amongst the most important business settlement conditions for airports and a condition for real estate development. In return this economic growth and urban development improves the attractiveness of the airport as a destination. The embeddedness of the airport in the city-region is essential for the development towards a cityport. This excludes wayports from the analysis, airports that are limited to freight and passenger transfers, and that are not related to the city or region. These wayports are located in the geographical periphery; for example, freight transfer in Anchorage, Alaska (providing shorter routes over arctic regions), or passengers at Charlotte, North Carolina in the U.S.A. and until recently, Clermont-Ferrand in central France.

Weisbrod, Reed and Neuwirth (1993) argue that few types of economic development have been as poorly predicted as development around airports. Some airport environments showed unexpected rapid development, where in other cases, land reserved for development remained vacant for decades. According to them, apart from institutional reasons (that are quintessential and discussed in the following chapters) spatial and economic conditions turn out to be crucial in the success or failure of the airport environment as a business location, as well. In particular, important conditions include: the status of the airport; user value; user costs; services to travellers and employees; attractiveness to businesses; land development in the airport vicinity; and indirect and induced effects of airport-related businesses elsewhere in the city-region (*ibid.*). For example, international operating businesses, business managers and services take advantage of the direct accessibility to the airport, as found in the previous chapters with major business locations in the Frankfurt Rhein-Main and Randstad city-regions.

In the cases where airports act as a magnet for business in the city-region one can be more selective in development than in the cases of failed land development near the airport. In the position of the airport as a cityport in the city-region a continuous tension exist between exploiting the potential of the airport for business on the one hand and not hindering or protecting the aviation activities on the other hand. Two approaches how to accommodate businesses and develop the airport region can be distinguished: the *exploit-the-site* approach, that makes full use of the business opportunities and in contrast *protect-the-site* that is more selective and prioritises airport related activities (H+N+S *et.al.* 1998).

Aviation specialists prefer the protection of sites by only admitting platform related activities as handling of cargo and baggage, and maintenance of airplanes. This is to avoid congestion and the downfall of the airport due its own success. The exploit-the-site approach, however, has a corporate background and sees the scarcity of the market as essential; land prices and rent levels will sort out the activities with the highest added value at the airport, often offices. In practise, the actors involved will choose a vulnerable balance of exploiting the airport's economic potential and spin-off while protecting the core business. The question is then whether these processes should be concentrated at the airport, or wider into the airport region.

While development of the aerotropolis can be seen as site protection, the prime example of site exploitation is the airport city model. In the 1970s and 1980s, interest grew for the airport area as business location. On the one hand, the airport needed protection and on the other hand, the airport itself was not the most suitable location for all kinds of economic activities attracted to the airport. For economic reasons in particular, a relatively low added value (and

thus, lower affordable rents) and the required large space for goods storage and distribution, it was more attractive not be directly at the airport but within the airport region. This regional approach considers the wider context of the airport in developing the city-region and is labelled *aerotropolis* by Kassarda (2000).

The increase of the services, businesses and leisure in the 1980s and 1990s with a higher added value per square meter has increased the pressure to exploit the direct airport environment. These extensions of business activities are facilitated by multi-modal transport connections on the airside and landside and show the development of what Güller and Güller define as the *airport city*:

*“...the more or less dense cluster of operational, airport-related activities, plus other commercial and business concerns, on and around the airport platform. However, this cluster is called the airport city only if it shows the qualitative features of a city (density, access quality, environment, services).”* (Güller and Güller 2002:70)

The modern airport has developed in the last 40 years from an air-station (1960s), shopping centre (1970s) to a business centre (1980s) and an entertainment- and leisure centre in the 1990s (Hartwing 2000). Güller and Güller classify the current wide range of activities at and surround airports and put them in relation to the airport-relatedness of the activities, thereby addressing the tension between the low added value airport-related activities and the high-added value loose-airport-related activities. In Table 4.1 aviation and activities specifically related to the airport are plain, and activities which were previously exclusively metropolitan are in italics.

The economic potential and urban pressure these activities generate, either in the airport region or at the airport territory itself, does not necessarily mean that the potential of the airport to become a cityport is used. Some of the most developed airports lack sufficient infrastructure and quality of land use, and there are mismatches with the local land use plan (Hack 2000, Güller

Table 4.1 Airport relatedness of activities and added value

Added value per m <sup>2</sup>	Core business	Airport-related	Airport-oriented	Airport-image
High	Terminal-services: duty-free, IT, etc.	International Logistics Company Headquarters	<i>Intl. business activities</i> <i>HQ's/WTC</i>	<i>Shopping</i> <i>ICT-business</i> <i>Other offices</i>
	Ground handling	Post services Test & training Catering	<i>Medical care</i> Hotel Conference Restaurants	<i>Entertainment</i> <i>Science park</i> <i>R&amp;D</i> <i>Education</i>
Average	Airplane maintenance	Flower-fair European distribution Parts centre	Value-added logistics Intl. exhibition centre	<i>Pharmaceutical</i> <i>High-Tech</i> <i>Electronic</i> <i>Food industries</i>
Low	Freight centres		Expo centre region Intl. large-scale distribution	<i>Regional transport and distribution</i> <i>Recreation &amp; golf</i>

Source: Güller and Güller 2002:164

and Güller 2002, Güller 2001). Accessibility of sites can be poor, and the airport territory can become a location with all kinds of business settlement, since land market prices and land use policies influence the location and concentrations of business. Therefore, we can argue that the possibilities of the airport area are often not used to its full potential. The question raises then, what the quality of the airport as a cityport in the city-region is. Hartwing (2000) discusses the position of the airport as a new urban node and provides a useful definition of the urban node, here referred to as the airport as a cityport:

*“An urban node must fulfil the function of a port, place and a node: here is the stop-over and transfer at the same time and offers a diversity of uses to the heterogeneous audience. The mere function of the traffic node has a high concentrating and magnetic effect on the surrounding. A node is dependent on the connectivity to the city(-region), in a reciprocal functional relationship.”* (Hartwing 2000:181)

Hartwing found that even though Frankfurt’s airport comes close, German international airports do not simultaneously fulfil the function of a port, place and a node, as for instance train stations do, as a place to stay. The airport is often considered as a *gateway to the world*, but not as a *gateway to the city-region* (Hartwing 2000:66). Hartwing argues that this relationship needs to be more reciprocal, and recommends taking the airport out of its isolation and making the airport itself more responsible for its direct environment by a more open planning process with the airport taking on a more important role in regional planning. The local and regional embeddedness of the airport as a cityport challenges the institutional system and in particular, the strategic behaviour of actors in the city-region. These institutional issues will be discussed in chapters 5-9, but in the following we limit the focus to the spatial and economic factors that contribute to the airport as a cityport in the city-region.

### 4.3 History of the airport case studies

In the next sections, the case study airports are considered in the context of the provided theoretical framework that focuses on the regional and economic position of the airport as a cityport in the city-region: Amsterdam Schiphol Airport in the Randstad, Frankfurt/Main International Airport, Tokyo International Airport at Haneda and Narita International Airport in Chiba prefecture. Essential for understanding in their national contexts and for reference, Franz Josef Strauss International Airport in München, Kansai International Airport in Osaka and Chubu International Airport near Nagoya are sometimes referred to, while the Netherlands does not have a second major international airport for reference.

#### *Amsterdam Schiphol Airport*

Schiphol Airport (AMS), 18 km from Amsterdam, is Europe’s fourth largest airport with 42.5 million passengers and 1.42 million tons freight per year (Schiphol Group 2004). Schiphol is not located in the municipality of Amsterdam, but covers 2878 hectare of lower polder land in the municipality Haarlemmermeer, and borders the city of Amstelveen. The Schiphol airport territory is on average larger in hectares than international airports in Japan and Frankfurt but smaller than Paris Charles de Gaulle. Schiphol is relatively large in proportion to the catchment area of 6.8 million inhabitants in the Randstad or 16 million in the Netherlands. The airport

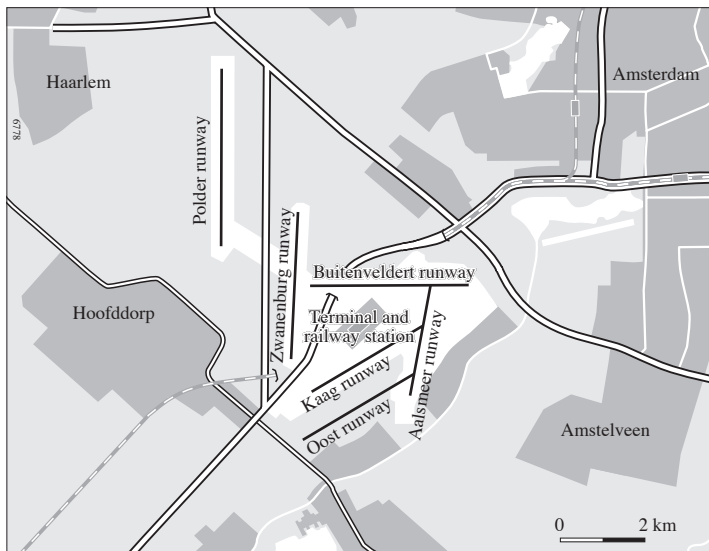


Figure 4.1 Amsterdam Airport Schiphol territory

has a 5-runway system (see Figure 4.1).<sup>1</sup> The parallel major runways are the north-south located Aalsmeerbaan, Zwanenburgerbaan, and Polderbaan. The Buitenveldertbaan and Kaagbaan are crosswind runways. The single terminal concept of Schiphol makes the airport efficient for transfers, despite long walking distances between the six piers. The limited liability company NV Luchthaven Schiphol manages the governmental-owned airport.

Aviation historians Marc Dierikx and Bram Bouwens (1997) comprehensively describe Schiphol airport's 90-year history. They mark four stages of development where the airport has become the current international hub: the start (1916-1945); growth within limits (1945-1967); rapid development, airport expansion, and relocation plans (1967-1985); and, since 1985, mainport as a mission.

The name of Schiphol refers to run aground ships in the former Haarlemmermeer lakes that was reclaimed in 1852. Stage one started in 1916 as a military airport (Table 4.2). Due to the founding of Royal Dutch Airlines KLM in 1919, civil aviation grew more rapidly, and after Amsterdam bought the airport, the city expanded the airfield into an airport with metalled runways. In this first stage of development Dierikx and Bouwens (1997) found strong society support and governmental investments in aviation, though it was not yet profitable.

In the second stage of airport development (1945-1967), Amsterdam and the Ministry of Transport further expanded the airport and it was decided by the national government that Schiphol should continue being the main airport in the Netherlands. The high costs involved in expanding made Amsterdam to decide to sell a share majority to the Dutch state in 1958. KLM's position as third largest carrier in the world and general rapid economic growth contributed heavily to the development of Schiphol in this period. This was supported by a national interest in the airport caused by the desire to be part of the worldwide network of air routes and

Table 4.2 Chronology of Amsterdam Airport Schiphol

Year	Landmark
1916	Opening Schiphol airfield
1919	KLM airlines founded
1926	Amsterdam buys and extends Schiphol
1958	N.V. Luchthaven Schiphol founded, Dutch state buys majority of Amsterdam's stocks, Government decides upon further growth on current location (I)
1967	Move from Schiphol-Oost to Centrum with one terminal and 4 runways
1978	Schiphol railway connection to Amsterdam
1979	Government decides upon further growth on current location (II)
1987	Schiphol Area Development Company (SADC) founded
1992	El Al airplane crash in Amsterdam
1996	Schiphol building expanded with underground railway station
1997	First government plans to sell minority of shares
1998	Start Schiphol Real Estate with Airport City concept
1999	Government decides upon further growth on current location (III)
2003	Opening fifth runway

Source: Dierikx and Bouwens (1997)

established by effective international lobbying for bilateral contracts on air routes. Despite the growth of civil aviation, the business was still hardly profitable (Nyfer 1999).

In the third stage of development (1967-1985) Dierikx and Bouwens found that airport authorities further specialised their organisations, costs and revenues, further increasing the share of non-aviation revenues. European airports introduced tax-free shopping and the airport becomes a business meeting location (Hartwing 1999). Despite a decade long economic recession from 1973, aviation kept growing and airports became increasingly blamed for noise pollution. Therefore, Paris and London partly built new airports, but Frankfurt and Schiphol had enough space for growth on the current sites. However, a study of the Kosten Commission (1967), that also introduced the noise contours based on calculations, made clear that there were limits to Schiphol's future growth, as well. This conclusion was politically sensitive and future research of the Falkenhagen Commission (1968) was demanded for finding alternative locations for airport expansion into the sea. Doubts about the costs of airport relocation and unsure about expected growth led to postponing political decisions until 1979. Based on the Structure Scheme Civil Aviation Areas report, in 1979 the national government finally decided to expand the airport on the current location in the Haarlemmermeer. This decision was in favour of the aviation sector and close to developments in reality as the expansion of the terminal building and the planned underground railway connection.

In the fourth stage of Schiphol's development (1985~), there is a parallel rapid development of aviation on the one hand (see section 4.4) and the 'mainport' status with priority in economic development on the other hand (discussed in 4.6 and 4.7).<sup>2</sup> The economic development of the hub and the mainport in the region became fact in a period of long and intensive debates on environment and safety in Parliament. Another major period of studies by the commission *Toekomstige Nederlandse Luchthaven Infrastructuur* (TNLI) on airport relocation and reconfiguration of runways was held in 1999, with the same result as in 1979 and 1958: growth



on the current location until 2020. The costs of an airport island in sea were considered too high and the aviation sector too dynamic and unpredictable, where budgetary deficits could not be foreseen. Further growth, despite strong opposition of environment- and community groups, was made possible with the introduction of the new Aviation Act (*Wet Luchtvaart*) and Schiphol Act (*Schipholwet*) that took effect with the opening of a new fifth runway in 2003. The current political debate is on further privatisation of the airport by selling a minority of government shares, and options for future aviation growth.

#### *Frankfurt International Airport*

Frankfurt International Airport (FRA) is currently Europe's third largest airport with 51.1 million passengers and 1.72 million tons freight per year (Fraport 2004). The airport is located in the southern part of the city, 13 kilometres from Frankfurt on a narrow territory of 1910 hectares surrounded by forests. The airport borders the towns Kelsterbach, Raunheim, Rüsselsheim, Mörfelden-Walldorf and Neu-Isenburg. The catchment area of Frankfurt airport is in the Rhein-Main region of 5.3 million and due to the central location with 82.5 million German potential passengers. Currently the airport has a two-terminal concept with a people mover as connector, served by 4000-meter runways. One runway runs north-south and the other runway east-west – or the latter counted as two parallel runways that cannot be used simultaneously (Figure 4.2). A third runway is planned in the northwestern section of the airport. The airport is managed by the limited liability company Fraport AG and owned by local, state and federal government and private shareholders, such as Lufthansa.

The development history of Frankfurt airport has a similar pattern as Schiphol. The stages of development are a late start (until 1955), make up arrears (1955-1972), rapid growth (1972-1984) and hub status (since 1984).

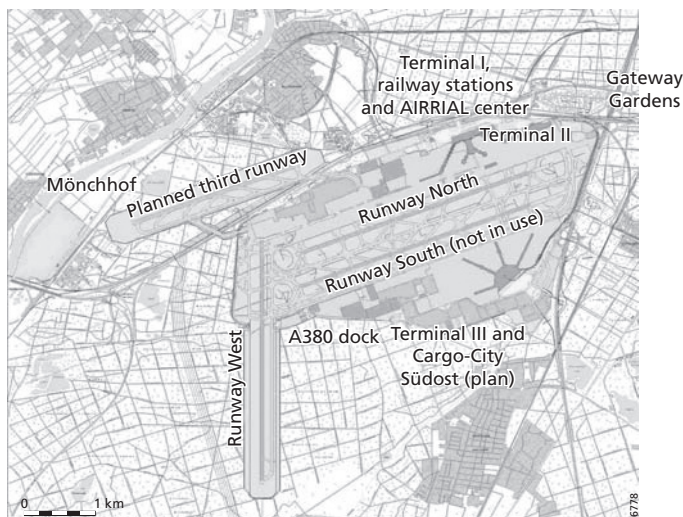


Figure 4.2 Frankfurt International Airport territory (Source: Fraport AG (2006))

The start of Frankfurt's airport in the current downtown park Rebstock was geared up with the foundation of *Südwestdeutsche* airlines in 1911 and later in the start up period became predominantly a military airport (Table 4.3). During the Nazi regime, the airport was relocated and expanded in the city forests, and after the war, used by US air forces. From 1955 on, the Federal Republic of Germany could restart civil aviation and due to the isolation of West Berlin, Frankfurt soon became Western Germany's major airport in the heart of Europe with Lufthansa as home carrier.

Frankfurt airport's development as a latecomer was soon made up for by the rapid development in the 1960s. Since the two parallel runways could not be independently used and the nearby US air force base could not be replaced, airport expansion with a third parallel runway was not possible (Dierikx and Bouwens 1997). Frankfurt Airport AG (FAG) therefore proposed a new north-south runway in 1964, but due environmental protests, riots that even lead to deaths, and revoking of former judicial decisions, it was not until 1984 that the second runway was opened. In the mean time, FAG built airport terminals, an underground railway station, airport services and introduced a permanent noise monitoring system; all unique and leading projects for European airports in the period making up arrears and rapid aviation growth (*ibid.*).

Frankfurt airport became in the late 1980s and 1990s a hub for both international and domestic flights. Environmental opposition, the location in the forest and the possible competition with downtown Frankfurt forced the airport to concentrate and limit urban development, with the AIRRAIL centre on top of the railway tracks as best example of this regime. In 2005, the US Army handed over the air force sites completely to Germany, prime locations for further airport related development for Fraport AG. The current political debate is on further expansion due increasing pressure on the Frankfurt's runways. In 2000, the Airport Mediation Committee recommended further airport expansion (Hänsch *et.al.* 2002), which was followed by a political

Table 4.3 Chronology of Frankfurt International Airport

Year	Landmark
1911	Construction of airfield Rebstock in Frankfurt
1924	Start of <i>Südwestdeutsche</i> airlines
1936	Rhein-Main airport and airship base opened in Frankfurt city forests
1945	Rhein-Main airbase becomes major hub for U.S. and later NATO armies
1955	Restart of passenger aviation by Lufthansa airlines with HQ's in Köln
1972	Opening Terminal 1 with underground train station
1980	Start of underground regional light rail
1982	Lufthansa cargo centre
1983	Widespread violence after commemorating the approval of a second runway
1984	Opening of western second runway
1988	Frankfurt Airport Center and start plans for Airport Conference Center
1994	Opening Terminal 2, connected by Sky Line people mover
1997	Cargo-City Süd
2000	Government decides upon further growth on current location with third runway
2002	AIRRAIL centre opened for long distance trains and commercial real estate
2005	Rhein-Main airbase and settlements returned to Germany

Source: Freund (2002:95)

preliminary decision and court ruling in Darmstadt in 2001 to plan a third runway in the northwest area near Kelsterbach. The last five years, the expansion debate dominated the political arena. The likely result is a compromise of constructing a third runway and a ban on night flights.

*Tokyo International Airport at Haneda and Narita International Airport*

The Tokyo Metropolitan Area has a multi-airport system, with three airports: the US air base Yokota in Tachikawa, 38 kilometres west of Tokyo; the domestic airport at Haneda (HND) in Ota, 31 kilometres southeast of Tokyo; and the international airport 78 kilometres east of Tokyo in Narita (NRT), Chiba prefecture.<sup>3</sup>

Tokyo International Airport at Haneda was with 62.3 million passengers Asia's busiest and the world's third busiest passenger airport (MLIT 2004).<sup>4</sup> Haneda is located on a reclaimed island in Tokyo's Ota ward and borders the city of Kawasaki. It's the most central and convenient located airport, with monorail and underground rail connections and highway access relatively close to downtown Tokyo. Haneda is fully owned by the Japanese national government, and the Ministry of Land, Infrastructure and Transport (MLIT) delegates management to Japan Airport Terminal Co. Ltd. as airport authority. Currently, three runways serve Haneda in 24-hours operation on the reclaimed island in the Tokyo Bay: two major parallel runways of 3000 metres and a cross runway of 2500 metres, with in the middle two airport terminals with infrastructure access (see Figure 4.3). The usage of the small 580 hectares island is considering the

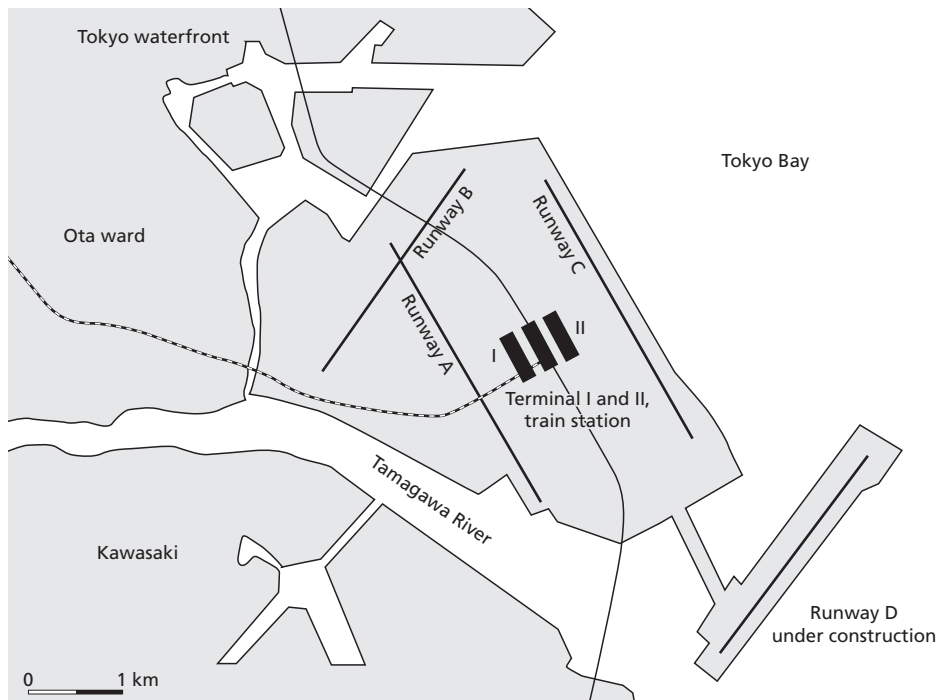


Figure 4.3 Tokyo International Airport at Haneda airport territory

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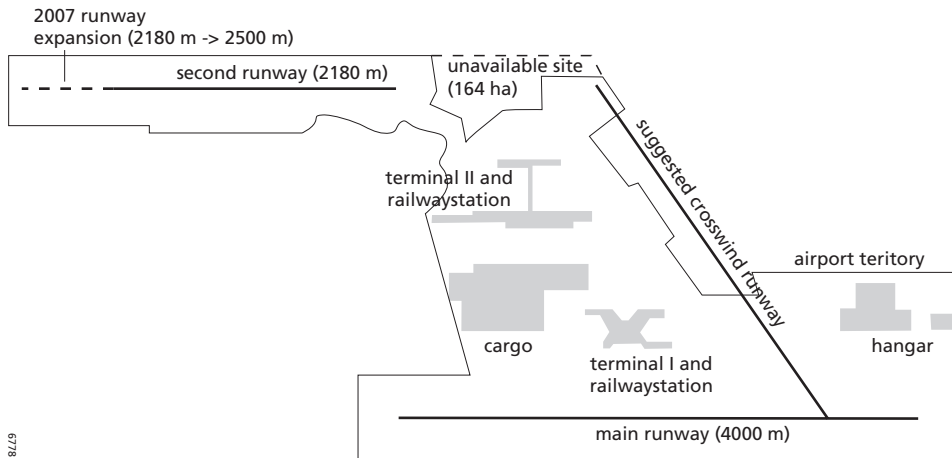


Figure 4.4 Narita International Airport territory

number of passengers very efficient, but air cargo handling is limited. A fourth runway is under construction.

Formerly known as New Tokyo International Airport, Narita International Airport is located in the heart of Chiba prefecture, 78 kilometres east of Tokyo. Narita airport of 940 hectare is the main international air traffic and cargo centre of Japan: with 2.37 million tons of freight in 2004, Narita is the world's third largest cargo airport and the world's 25th largest passenger airport with 31.1 million passengers in 2004. Figure 4.4 shows that two connected terminals serve the parallel 4000- and 2180-meter runways. Similar to Haneda airport, Narita has the legal Class A (international) airport status in Japan and managed by Narita Airport Authority. The airport is owned by the national government, which plans to privatise the airport.

When Haneda and Narita airports are considered together, the development pattern from the start through the current status shows many similarities with the Schiphol and Frankfurt airports (see Table 4.4). The development can be distinguished in the start up of Haneda airport (1931-1958), growth within limits of Haneda (1958-1978), slow internationalisation with Narita airport (1978~), and 1990s-2000s rapid growth of both domestic and international flights.

Tokyo airport near Haneda opens in 1931 and in the starting stage was mainly used as a military airport during the war period and afterwards for US occupational forces. In 1958, the US returned Haneda to Japan, although domestic flights by JAL and international flights by Northwest Airlines already took place. In the same period the airport was expanded further into the Tokyo Bay.

Growth of air transport lead to the opening of the new arrival terminal at Haneda in 1970. Founding the new airport in Narita became necessary after Haneda's lack of future capacity, environmental problems and deconcentration of economic activities from Tokyo into the more peripheral areas of Japan. Landowners, farmers and community activities did not agree with the location decision that came as a surprise and with a lack of negotiation opportunities with the

*Table 4.4* Chronology of Tokyo-Haneda and Narita International Airports

Year	Landmark
1931	Opening of Tokyo Airport at Haneda
1953	Start construction on reclaimed land and passenger terminal, civil aviation start-up
1958	US returns Haneda airport to Japan
1962	Government decides upon further airport growth at Narita
1964	Haneda Monorail line opened for Tokyo Olympics
1970	New arrival terminal opens at Haneda, start construction Narita
1971	Start riots over construction of Narita airport
1978	Narita airport opens with single runway
1985	JAL airplane crash on route from Haneda to Osaka
1988	Chiba Expropriation Committee for expanding Narita resigns after violence
1991	Symposium replaces the Chiba Expropriation Committee
1993	Terminal 1 opened at Haneda
2002	Second short runway opened at Narita for FIFA world cup
2004	Terminal 2 opened at Haneda, government privatisation of Narita airport
2004	Tokyo third airport discussion postponed with construction of Haneda fourth runway

Source: Japan Airport Terminal 2004, NAA 2004

governments. Environmentalists' and landowners' protests and violence were the reasons for delay of the opening of Narita International Airport in 1978 and the current short runways (see Figure 4.4). After four decades of conflict, in 2006 Narita could finally start constructing the final part of the second runway in northern direction (Asahi Shimbun 11.09.2006).

Since the opening of the new international airport of Narita in 1978, there are only few international connections with South Korea and foreign holiday resorts in the Pacific from Haneda. Therefore, in theory both airports do not compete but are complimentary. The period of rapid growth in the 1980s and stabilization afterwards means a rapid growth of domestic travel continues at Haneda, and the internationalisation of Japan since the 1990s suggests further growth for Narita. Haneda focuses on domestic passengers and constructs new terminals and plans a new runway. Haneda expects to grow to 73 million passengers in 2012. Few airport-related industries can be found near the airport island.

#### *Kansai- and Chubu International Airports*

The constructions of Chubu and Kansai airports and the future expansion plans for Haneda are comparable subcase studies with a different timeline and institutional setting. For understanding Tokyo's airport area development and the economic impact and actor coalitions, it is crucial to have a wider outlook on more recent airport development in Kansai and Chubu. Tokyo's airports are thus introduced in context of Japan's international airport development near Osaka (Kansai International Airport) and in Nagoya, Chubu prefecture (Central Japan International Airport (CJIAC or Centrair)). With Haneda, Narita and Osaka-Itami these airports have the First Class airport status in Japan, but Kansai and Centrair have a mix of public and private ownership.

In 1994 Kansai International Airport opened as the world's first airport in the sea. The direct reasons for building a new international airport were noise problems at Osaka-Itami Airport, economic revitalisation of the Kansai region, and the demand for a second international airport

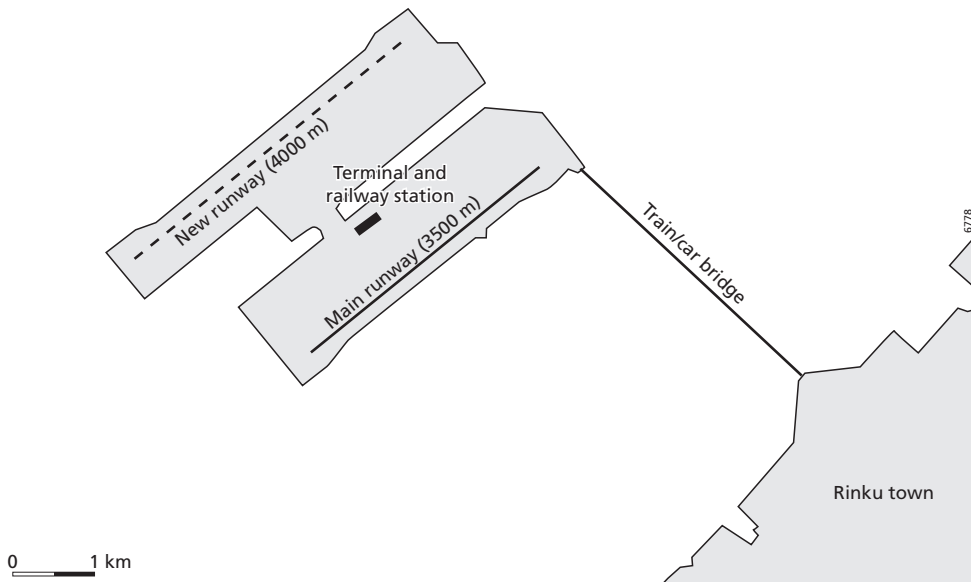


Figure 4.5 Kansai International Airport near Osaka

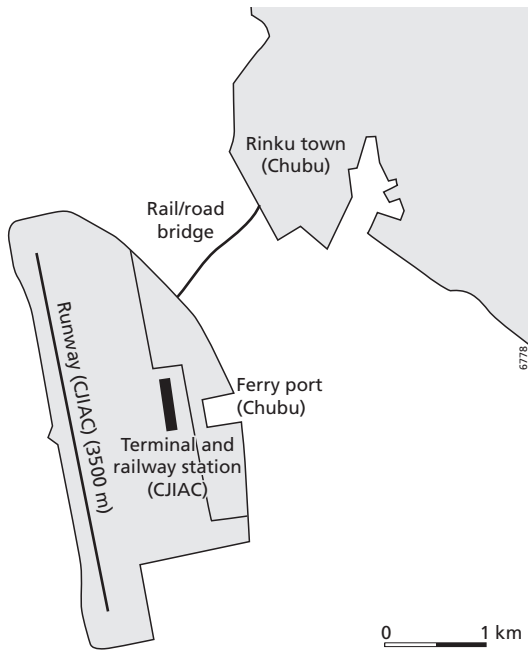


Figure 4.6 Chubu International Airport near Nagoya

in Kansai. Currently one terminal designed by Renzo Piano serves in 24-hours operation one runway on the 510-hectare island, with a second runway on an additional island under construction (Figure 4.5). In fiscal 2003, over thirteen million passengers used Kansai airport for 19 domestic routes and 72 international destinations (Osaka Prefectural Government 2004). Due economic recession in Kansai causing lacking traffic demand, the continued opening of Osaka Itami airport, one hour distance to Osaka, the new competing low-budget airport of nearby Kobe in 2006, and continuous land set that causes high maintenance costs, the financial situation of KIX is problematic and the second runway is severely criticised (Asahi Shimbun 17.8.2004).

The physical structure of Centrair as an airport island connected by a bridge with a reclaimed shoreline is similar to but smaller than Kansai International Airport (see Figure 4.6). Noise problems at the old airport of Nagoya, the 2005 Aichi World Expo and the sustainable economic growth of the Chubu region led by Toyota are the main reasons for constructing the new airport (MLIT 2004). Centrair is built on a 700 hectare reclaimed island in the Ise Bay, by train 28 minutes south of Nagoya. Centrair has one runway and one terminal building that operate every day for twenty-four hours.

In sum, the history of the airport case studies shows parallels in their developing stages. The start-up was delayed in both Japan and Germany due to consequences of the Second World War. Both countries could catch up with the Netherlands rapidly in the era of brisk economic growth. The effect of this rapid growth in the era of greater environmental and social consciousness in the 1970s however, led to violent conflict over airport expansion (Frankfurt) and airport construction (Narita). Therefore, Japan preferred from then on airport islands in the sea. Schiphol could continue to grow due to a lack of political courage to open up a mega-project at another location, uncertainties in aviation, and a required majority consensus.

#### **4.4 Airside development**

The development of aviation networks, the connections, price and services for travelling, determines the status of the airport and the attractiveness of the airport as a business location or cityport (Weisbrod *et.al.* 1993). Therefore, understanding the types of airports and trends in aviation is essential. Liberalisation and deregulation are the main influencing factors and facilitate hub-and-spoke networks, airlines alliances, low cost carriers, and increased airlines competition. These airside developments need further explanation in general and aviation trends in the case study analysis in particular.

##### *Deregulation and liberalisation*

The U.S. aviation market deregulation since the 1970s showed major changes in strategies, efficiencies and network economies of airlines in North America. The European Commission follows this example since 1987 in aiming to achieve a single European aviation market (Burghouwt 2005). Deregulation and liberalisation can be distinguished in three stages: liberalisation of the domestic market, bilateral treaties, and multilateral treaties in economic blocks. The deregulation and liberalisation of the aviation market is enforced by the 'nine

freedoms of the air' where airlines are allowed to use foreign airports and air routes (Mendes de Leon 2003).

An *open skies* agreement of western countries replaced the formerly common bilateral agreements between countries, based on effective lobbying and negotiating. In East Asia, however, the aviation markets are separated, conservative and limited in size due to required bilateral political treaties between countries (Interview Yamauchi 2004). Therefore, the airlines strategies and network formations are different from the western aviation networks, despite the formation of global airlines alliances. East-Asian countries therefore focus on increasing capacity and connections rather than increasing frequencies as Western countries do. Increasing frequencies favours the development of hub-and-spoke structures with multilateral treaties in aviation economics.

#### *Hub-and-spoke networks*

In the American and European markets, deregulation and increased competition led to the rise of low-cost carriers complementary to the development of a hub-and-spoke system of full-cost- or main carriers (Burghouwt 2005). The national airlines are the main carriers of the hub and spoke network, but are increasingly complemented by point-to-point low-cost carriers that are less spatially concentrated at the hubs, and also less focussed on regional and local airports as often is assumed.

In the hub-and-spoke system, a few major hubs dominate the aviation market. They can be either major destination airports (Tokyo, London, New York) or transfer hubs (Atlanta, Amsterdam, Frankfurt). It shows that these hubs benefit much more from aviation growth than smaller hubs or national airports (*ibid.*). In Europe, London Heathrow, Paris Charles de Gaulle, Frankfurt and more recently, Amsterdam Schiphol and Madrid, become important hubs with a concentrations of airlines for intercontinental transportation. They followed the example of hub development of Atlanta and Chicago in the U.S. Despite shifts on the American market, Burghouwt (2005) shows that the European market, despite liberalisation, remained relatively stable due to the spatial concentration of the national main carriers in their home countries. These European carriers with a historical regional embeddedness also show major differences in adjustment to the institutional competitiveness to the new hub-and-spoke networks (Lehrer 2001).

Tokyo used to be the strategic hub for Asia for American carriers, and Japan had leading airports compared to other Asian cities. Japan gradually lost its position as hub due the construction of modern, sophisticated and cheaper airport hubs in Singapore, Hong Kong, Shanghai, Kuala Lumpur and Seoul on the one hand, and the limited number of bilateral treaties that closes the aviation market on the other hand. This increased competition with Asia in combination with the high costs of landing and land in Japan are the main reasons for the current focus on the domestic market (Interview Ueda 2004). Furthermore, there is no clear strategy for airport development in Japan (NAA 2003).

In the case of Schiphol and Frankfurt, the airports have more than average benefited from the liberalisation and hub-and-spoke network developments in the 1980s and 90s. The competitiveness of Schiphol is on the one hand explained by the commercially successful corporate strategy of landing- and departure times of KLM (the so-called 'wave-system', referring to the waves of connected incoming and outgoing airplanes) On the other hand the



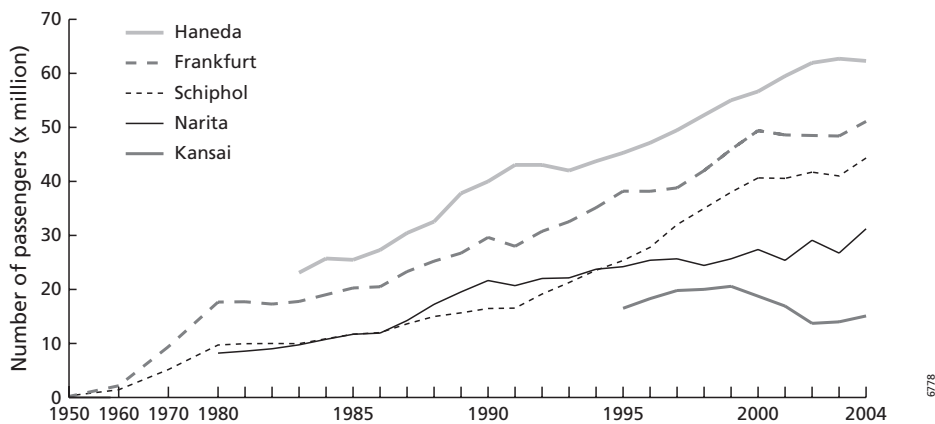


Figure 4.7 Passenger growth at Schiphol, Frankfurt, Haneda, Narita and Kansai airports (Source: Dierikx and Bouwens (1997), MLIT (2002), NAA (2004, 2005). No data for Haneda before 1983.)

one terminal concept of Schiphol airport contribute to the airport's efficiency. Both create short transfer times for multiple connections and thus an efficient airport despite the relative small domestic market in the Netherlands (Ministry of Economic Affairs 2000).

The long-term developments of the airport case studies are shown in Figure 4.7. This figure shows a stable development for Schiphol and Frankfurt in the 1980s and a rapid development of Japan's international airport. The faster growth of passengers in the 1990s for the Schiphol and Frankfurt emphasises the importance of the hub function combined with economic growth, where Japan's airports shows economic stabilisation. Finally, the capricious development of aviation in the 2000s reflects the effects of 9/11 and SARS. In forecasting aviation developments, specialists agree that the market is much more volatile than ever before because of increased competition amongst airports in a deregulated market.<sup>5</sup> This creates uncertainties for airport planning, as well.

#### Airlines alliances

The formation of three world alliances with monopolies or dual-hubs (two hubs cooperate in one alliance) is the latest trend in aviation. Aviation network analysts disagree on the strengths and dominance of the airlines alliances in the future (Niemeier 2002). Currently, these alliances have duopolies in Europe with strategic hubs in North America and East-Asia: One World alliance in London (BA) and Madrid (Iberia); Star Alliance in Frankfurt and München (Lufthansa); and Sky Team in Paris (AF) and Amsterdam (KLM). The merger of Air France and KLM brought the status of Schiphol to discussion, but a lack of capacity in Paris, serving a complementary geographical market, and protection of the hub-status in the AF-KLM agreement until 2008 has prevented Schiphol from a shift towards Charles de Gaulle thus far.

The dominant airlines at the hubs furthermore prefer clustering in their own terminals for business efficiency reasons, in particular short transfer times. Although Schiphol primarily focuses on accommodating the SkyTeam, it did not plan a separate terminal for the SkyTeam yet and it accommodates other alliances and low-cost carriers as well, in order to make the airport

less vulnerable for dominating airlines alliances. Clustering airlines alliances are also seen in the Star Alliance hubs in Germany. In Frankfurt, the Star Alliance of Lufthansa, United Airlines and ANA is clustered in terminal 1, with additional capacity for partners as Thai Airways in München.<sup>6</sup>

The geographical concentration of aviation of duo hubs is also existent in the large domestic Japanese market. Almost half of the flights in Japan start or end in Tokyo's airports Haneda and Narita (Feldhoff 2002). Even though the Japanese aviation economy is different from the East-Asian market, Japan's main carriers are still involved in international cooperation and focus on reducing costs and improve competitiveness. The competitiveness of Japanese carriers was in a bad condition for decades (Porter *et.al.* 2001), and initiatives are taken to improve this situation by improving quality, decreasing costs and offering more connections. Japan Airlines (JAL) has as partner of One World heavily invested in international connections and thus concentrated in Narita.<sup>7</sup> All Nippon Airlines' (ANA) role in the Star Alliance is to connect American carriers to the East-Asian market and thus heavily invested in Haneda airport, where ANA concentrates in the new second terminal (Interview Namekata 2004). The most-likely scenario is that Haneda will become the domestic airport with short-distant international flights to East-Asia, and Narita will stay the international long-distance airport.

#### *Pressure on landing fees and importance of transfers*

The volatile aviation market and increase competition puts further pressure on airport to welcome every passenger, including transfer passengers. The question is, what added value does the transfer passenger offer the airport and the regional economy? At Schiphol, the share of transfer has grown from 20% in 1990 to over 45% in 2004 (CPB 2000, Schiphol Group 2004). In Frankfurt's airport the transfer ratio is even more than half (54%), where Narita has only 10% transfer passengers.

Strictly speaking, the direct added value is very limited, since spending at the airport is limited. However, as the Netherlands Bureau of Economic Policy Analysis CPB (2000) points out, the added value is mainly indirect since the transfer passengers increase the quality of the entire network, the frequencies and destinations. This leads to efficiency advantages and lower costs than other airports. Without transfers at Schiphol, Amsterdam aviation economists at SEO expect that half of the travel destinations fall off and passenger numbers will drop 40%, freight transport will drop 60-80% and direct employment 50%, a total decrease of 1% of national GDP (SEO 2003). The transfer passengers therefore contribute to the network quality, growth of the airport and indirectly, the attractiveness of the airport area as a business location.

Also deregulation and liberalisation sets landing fees under pressure. The high landing fees in Narita and Kansai are currently the most serious problem of Japan's airports. Narita is ranked most expensive, Kansai second and Chubu third in the world with highest landing fees for cargo and people (NAA 2004a). Chubu's lower landing fees are competitive with Schiphol and Frankfurt in terms of freight. In terms of passengers, Narita becomes world competitive and comparable to Schiphol and Frankfurt due lower passenger- and airplane fees. The international flights and improved hub-function can take away flights from Kansai International Airport and Narita International Airport. The current expansions of Haneda, Kansai and new airport in Nagoya increase airport competition within Japan and already led to a decrease of landing fees (Asahi Shimbun 29.6.2004, Japan Times 27.1.2005).

*Size and efficiency of the airports*

Now that a general background is given of changes at the airside of the airport area, we can see how the case-study airports perform within the context of aviation network formation. Figure 4.8 gives insight in the largest airports in the world. The size of the airport as a sum of both passengers and freight are leading to the world's largest airports.<sup>8</sup> Atlanta and Chicago O'Hare are the world's largest airports. Figure 4.8 shows that Los Angeles has a strong cargo position, and therefore it surpasses Haneda airport as number four in the global hierarchy. Haneda is close to Paris Charles de Gaulle and Frankfurt airports with 62 million passengers plus 8 hundred million kilo's freight (62+8= 70 work load units (WLU)). Amsterdam Schiphol is the world's tenth largest airport, with Narita nearby due to the large cargo handling in Narita. Not shown in Figure 4.8 are München (27 million WLU), Kansai (24) and Osaka-Itami (19).

Figure 4.8 shows that not only passengers, but also cargo transport is of strategic importance for Schiphol, Frankfurt and Narita. Where recent trends of passengers demand has been influence by 9/11 and economic recession, cargo continues to grow steady and rapidly and is the competitive edge of the SkyTeam alliance with cargo giants Korean Air and Northwest Airlines at Schiphol (Interviews Wade 2005 and Kerckhoff 2005). For example, the Air France-KLM cargo headquarters will be established at Schiphol. Nevertheless, the airports in Frankfurt and Tokyo do not yield Schiphol. Frankfurt is the world's eight largest airport and Narita is the world

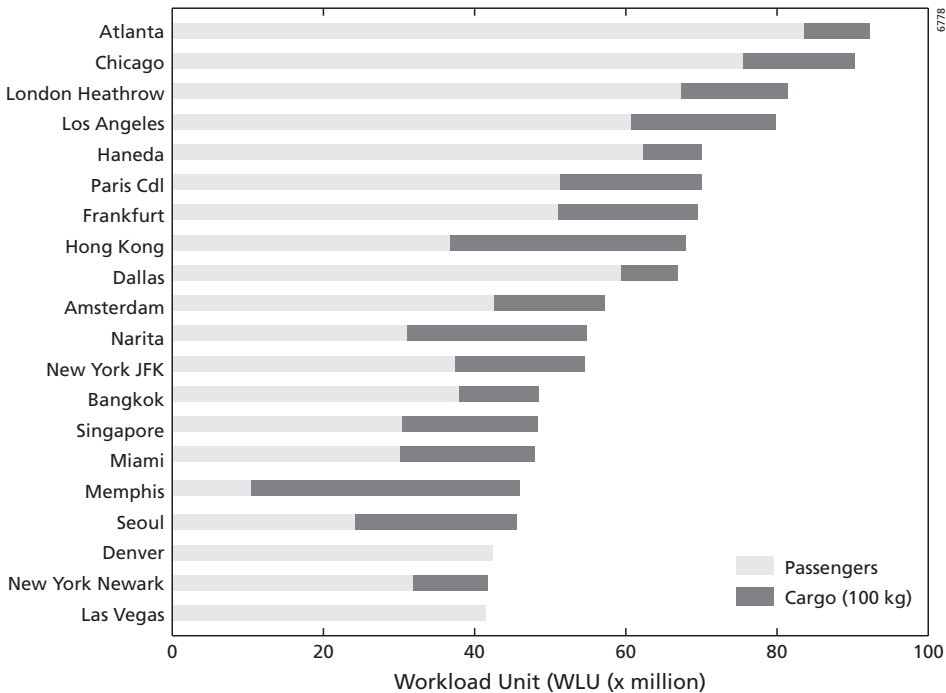


Figure 4.8 World's largest airports by passengers and freight (2004) (Source: Airport Council International (2006))

third largest airport in terms of cargo (see Figure 4.8). Narita's short second runway is a serious problem for large aircrafts, but at Narita there is space for cargo handling and distribution – space that lacks or is expensive on the Haneda airport island.

The large international airport, however, does not always mean connections to the world centres. Especially large freight airports as Anchorage in Alaska and Memphis or domestic oriented airports as Haneda do not give access to the international network of global city-regions. Therefore, it is important to consider the access to world centres as well (Schaafsma 2003). European major hubs London (125 connections to major cities), Paris (119), Frankfurt (116) and Amsterdam (100) as well as New York (115) and Moscow (102) have most connections to world centres in 1995. Tokyo's major international connections are limited to 67, comparable to Miami.

In sum, the case study airports are amongst the largest in the world due to passengers (Haneda), freight (Narita) or both (Frankfurt and Schiphol). Narita's development lacks behind the rapid growth of the other cases as passenger hubs in the 1990s. Airport deregulation and liberalisation changed the position of airports, in particular, hub development in the case of Frankfurt and Schiphol. Bilateral treaties in East-Asia are still dominating airlines networks, but competition increases for Japan in East-Asia as well. Airports are forced to compete, due to airline alliances clustering at the hubs, and pressure on landing fees.

#### **4.5 Airport development**

The alliances of airlines increase competitiveness, but also bolster the negotiating position of the airports, for which direct competition is a new phenomenon. These leading airport users are becoming more dominant as the leading U.S. market shows, and currently airlines alliances claim their own space inside the airports: the dedicated terminals (Graham 2001). Increasing competition and airport benchmarking lead to three key developments in the airport sector, discussed below: commercialisation, globalisation, and privatisation.

##### *Airport commercialisation*

The airports' commercialisation process that dominated the 1970s and 1980s includes financial management, non-aviation revenue generation and airport marketing. Here we focus on the changing balance of aviation and non-aviation revenues for airports in particular, a development that has direct impact on urban development. The main reasons for the changing revenue structure are that, on the one hand, liberalisation of the aviation market forces the airport to reduce landing fees and work more efficiently, on the other hand, it turned out that real estate developments as hotels, conference rooms and offices in addition to parking fees were amongst the most profitable businesses for the airport operators. This leads to a share of non-aviation revenues that can be larger than the share of aviation revenues in modern and competitive airports. The 2005 worldwide highest productive airport Tampa (U.S.), for instance, has over two-thirds of airport revenues in non-aviation (ATRS 2005). On average, however, the balance is fifty-fifty in North America. The non-aviation revenues at Asian and European airports are one and a half times higher than North-American airports (Graham 2001), which can partly be

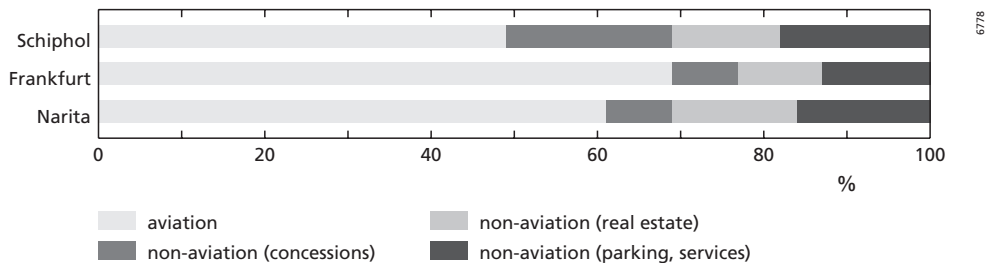


Figure 4.9 Revenue structure of Schiphol and Frankfurt (1999) and Narita (2004) airports (Source: Güller and Güller (2002), NAA (2004b))

explained by the more dominant position and co-ownership of airports by airlines in the U.S., with a primary focus on aviation revenues.

Figure 4.9 shows the revenue structure of the case study airports. The difference of aviation revenues, mainly airlines, cargo handling and agents, is explained by the outsourcing of cargo handling by Schiphol compared to Frankfurt. Since an EU-ruling in 1998, Fraport is forced to end a monopoly and partly tender cargo handling, slowly changing the balance. Furthermore, despite finishing tax-free shopping in the EU, Schiphol continues to be successful in retail (concessions for shops). Furthermore, Schiphol is successful in generating parking revenues, despite modal split policies that favour train transportation to the airport. All case studies have at least over 10% of income generated by real estate. For Haneda airport, no comparable data are available.<sup>9</sup>

#### Airport globalisation

The current trend of airport globalisation is reflected in the tendency of airport corporations to buy shares, partly own or operate airports abroad in order to spread risks and gain influence at possible partner airports. For instance, Fraport had shares in Lima airport, where Schiphol Group owns parts of Brisbane and a New York JFK terminal. Fraport has set the business target at 50% external activities in 2005 (Fraport 2004), but had little success in the foreign acquisitions. Schiphol Group expands abroad due to the limited size of the domestic market (Graham 2001). More successful is the Macquarie Bank that rapidly buys airport shares in, amongst others, Australia and Italy. Rather than buying other airport shares, Japanese airports first have to focus on improving their own weak competitiveness, and therefore pass by the trend of airport globalisation (cf. Porter *et.al.* 2001).

The financial results show the problematic competitiveness of Japanese airports: airports are profitable businesses in general, but until recently only Japanese airports are suffering from financial losses. In 1999, The Port Authority of New York and New Jersey, British Airport Authority (BAA), Orlando and Singapore were leading and made more than €200 million profit. Schiphol Group (€125 million) and Fraport (€70 million) also show positive financial results. Only Japan's international airports at Narita (€9 million) and Kansai (€199 million) made losses amongst the thirty largest airport operators (Graham 2001). Only recently, Kansai International Airport was able to have a positive financial result, following other airports in Japan (Asahi Shimbun 24.II.2005).

### *Airport privatisation*

Changing ownership of a airport companies by privatisation can be seen as the next step in commercialisation and is a major institutional discussion (see chapter 8.7). There are considerable differences in the ownership structure of the case studies. Schiphol's majority of shares is currently owned by the national government (75.8%), with the cities of Amsterdam and Rotterdam as co-shareholders (see Figure 4.10 left). The national government plans to bring a maximum minority of all shares (49%) to the market, has for approval of parliament but faces the opposition to privatisation of Amsterdam as minority shareholder (Ministry of Transport and Water Management 2003, City of Amsterdam 2006).

In Frankfurt, the City of Frankfurt and *Bundesland* Hessen are the majority shareholders of the airports. In the 1990s, 29% of the stocks were privatised for generating money for airport investments. In 2005 the German national government also sold their shares to private shareholders and Lufthansa airlines (Figure 4.10 right). Although governments on the regional and local level still own the majority of the airport, investing in the airport is more and more an affair for private actors (Dehn *et.al.* 1998). However, that is not the case with the airports of Haneda and Narita owned by the Japanese national government. Government bonds at the Tokyo stock exchange in 1990 made heavy investments in Haneda airport possible. Although Narita airport is now fully owned by the national government, privatisation started in 2004 foresees a long-term planned sale of all shares from 2007 onwards (MLIT 2004). In the case of Kansai airport, a new public-private ownership structure was set up with many small shares for companies involved in the construction and expansion process (Bongenaar 2001).

In sum, the dominant trends in airport development can be found in the case studies. Airport commercialisation leads to a larger share of non-aviation revenues in Narita, Frankfurt and Schiphol. Although governments are still the main owners of airports, privatisation has taken effect in Narita and Frankfurt, and is under discussion in the case of Schiphol. At Haneda and Frankfurt, this is done in order to generate money for investments. Privatisation of Narita however aims at making Japanese airports more competitive.

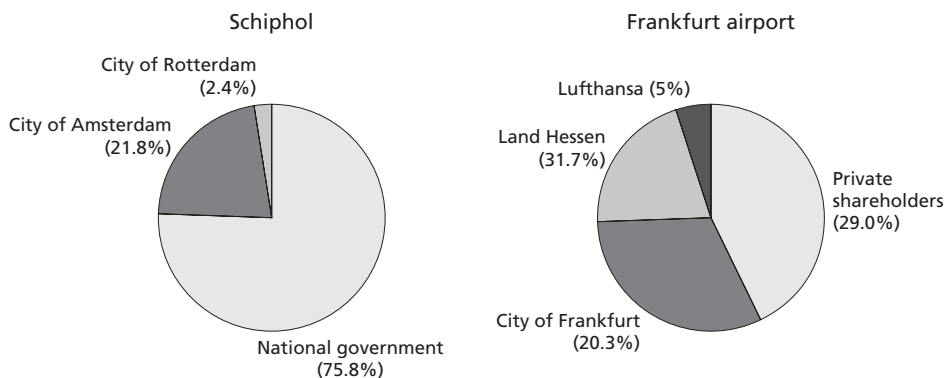


Figure 4.10 Ownership structure of Schiphol and Frankfurt airports (2005) (Source: Ministry of Transport and Water Management 2003, [www.airportcity-frankfurt.de](http://www.airportcity-frankfurt.de) 2006)

## 4.6 Landside development: economic impacts

The dynamics in the aviation market and the trends in airport privatisation and commercialisation are directly related to developments on the landside of the airport. This section focuses on the economic impacts, before urban dynamics are discussed in section 4.7. There is ample research on measuring the effect of the airport in creating added value and jobs in the region.<sup>10</sup> Despite different definitions and research results, researchers agree the economic impact of international airports is considerable.

The total economic effects of airports, in terms of added value and jobs, are caused by direct impacts, and the spin-off or secondary jobs of the airport caused by indirect, induced and catalytic effects (Graham 2001:184). Direct impacts are employment and income generated directly by the operation of the airport. Indirect impacts are employment and income generated in the chain of suppliers of goods and services to the direct activities at the airport and the airport vicinity, for instance fuel, utilities, cleaning and construction. Induced impacts are employment and income generated by the spending of airport workers, e.g. food, retail and transport. Finally, the airport as a business factor can generate catalytic effects in the city-region.<sup>11</sup>

International airports create more direct jobs than national airports: 950 jobs per one million passengers (mppa) for international airports versus 750 jobs mppa for national airports (Graham 2001; York Aviation and ACI 1998, 2004). In addition, every on-site job generates roughly one additional job in the airport region, leading to the rule-of-thumb of 2000 jobs per million passengers for international airports (*ibid.*, see Table 4.5). Airports in liberal market economies as Canada and the U.S. show high direct and indirect impacts due to outsourcing with flexible and part-time labour contracts.<sup>12</sup>

The case studies are put here in perspective with other major competitive airports. Despite the inaccuracies and variations in worldwide definitions, Table 4.5 shows considerable differences

Table 4.5 Direct and indirect jobs per million passengers per annum (mppa)<sup>13</sup>

Airport	Year	Passengers (millions)	Direct jobs (mppa)	Secondary jobs (mppa)	Total jobs (mppa)
Phoenix	1996	30.4	1213	2998	4211
Vancouver	1997	14.8	1546	2005	3551
Paris CdG	1996	31.7	1560	1910	3470
Tokyo Haneda*	2002	62.0	532		
Tokyo Narita*	2002	29.1	2061	2195****	3282****
München	1996	15.7	1057	2131	3206
Frankfurt**	2003	48.4	1281	1674	2955
Schiphol***	2003	41.0	1390	1439	2829
Schiphol	1997	31.0	1581	806	2387
Milan	1994	13.0	649	1984	2633
Washington Dulles	1998	15.6	992	796	1788
Washington Natl.	1998	15.8	646	402	1048
Barcelona	1994	10.7	458	463	921

Source: Graham (2001), \*NAA (2002), \*\*York Aviation and ACI (2004), \*\*\*Regioplan (2005), \*\*\*\* For Tokyo-Haneda and Tokyo-Narita jointly

between the economic impacts of airports in terms of employment. Schiphol used to have the highest number of jobs in the airport vicinity, with a lower regional spin-off. However, more recently, either definitions have been adjusted or the balance has changed in favour of the number of secondary jobs in the region: 57.000 direct and 59.000 secondary jobs in total. The reverse effects can be found in Milan: few direct jobs, with many jobs in the region. Frankfurt airport is the largest labour site (*Arbeitsstätte*) in Germany with 62.000 jobs in total, where the indirect effects are larger due to a large German catchment area. Nevertheless, related to the number of passengers München creates more jobs.

The different position of national and international airports is illustrated by the airports in Tokyo and Washington D.C., with fewer jobs and spin-off for national airports. Haneda have a lower economic impact than international airports and the proximity to downtown Tokyo makes direct employment near the airport less necessary (33.000 direct jobs in total). The position of Haneda as Asia's largest airport could not compensate the massive job loss of industrialised Ota ward (-12%) and Kawasaki (-7%).<sup>14</sup> In contrast, Narita's remote location force airlines to offer tickets that include local hotel stays for domestic to international transfer passengers, and furthermore, freight is labour intensive at Narita (in total 60.000 direct jobs). This had a major effect on the regional economy around Narita, where double-digit job growth figures are found in Narita (19%), Sakura (17%), Togane (15%) and Mobara (10%) between 1991 and 2001 (Van Wijk 2005).

A final tool of benchmarking the performance of airports is passenger satisfaction surveys that measures attractiveness of the airport as a place to stay and to see if the airport is a gateway to the city-region, or in other words: the airport as a cityport. Skytrax considers new Asian airports as best in the world.<sup>15</sup> For five consecutive years Hong Kong is chosen as best airport, followed by Singapore. New airports of Seoul, Kuala Lumpur, and Dubai are also highly appreciated. Schiphol is chosen third best airport in the world and is the best European airport. Frankfurt and Narita are less appealing to passengers. U.S. airports are found lower in the rankings.

In sum, the case studies (with the notable exception of Haneda) generate relatively many jobs in the airport region. This sets the case studies as coordinated market economies apart from the liberal U.S. and Australian markets, where labour productivity and direct impacts are higher due to outsourcing and flexible contracts, but less jobs are created. Schiphol combines the best of these worlds: high airport quality and outsourcing. Fraport prefers to conduct its own baggage handling instead, and is therefore by airport benchmarks estimated less efficient. High costs and low airport quality makes Japanese airports less competitive than other Asian airports.

#### **4.7 Landside development: urban dynamics**

Section 4.6 offered an overview of the economic impact of the airport case studies on the local and regional level. This however does not necessarily mean that economic spin-off means a high quality of the airport as a gateway to the city-region. Gary Hack (2000) was quoted as saying before that some of the 'elite corridors' between city and airport with full economic potential do not make full use of the urban potential and lack basic qualities as regional infrastructure and there is a sensitive balance of public and private economic and environmental interests near



airports. In this section therefore the case studies are analysed in terms of urban development on the landside to determine whether the airports are not only gateway to the world, but also gateways to the city-region itself. Or in other words: airports as cityport in the city-region. Therefore, first the landside urban position of the airport is addressed: Schiphol as an airport city, Frankfurt as a polycentric airport city, Narita as a sprawled aerotropolis, and Haneda as isolated airport island. This includes an overview of urban development in the airport region and a focus on the current crucial regional economic issues in the airport vicinity. Therein, brief attention is paid to the social and economic effects of environmental problems.

#### *Schiphol as an airport city*

Schiphol Airport primarily focussed on protecting the airport fields until the 1990s (cf. Dierikx and Bouwens 1997). The appointment of a national mainport status, first mainly an infrastructure concept that evolved into an spatial-economic planning concept, in combination with the position as an hub, started exploiting the economic potential of the airport vicinity. Schiphol Group gradually extended the real estate, parking and services business sectors. As the interviews results show, in the Randstad city-region, the airport city-marketing concept is generally accepted and acknowledged. The concept was successful in the sense that it attracted European headquarters and distribution centres in the region and generated retail and office facilities at the centre of the airport complex (Ministry of Economic Affairs 2000).<sup>16</sup>

Three zones of urban development can be distinguished in the airport region (see Figure 4.11). First, office and hotel development is concentrated in the axis of Hoofddorp-Schiphol Centrum-Riekerpolder-Zuidas. Second, a cargo complex in the southern domain can be distinguished (locations 17,19,20). Third, another cargo complex between the harbour of Amsterdam in the north, along the new A5 motorway Osdorp and Lijnden rose.<sup>17</sup>

The exploitation of the economic dimension of Schiphol as a cityport in the Randstad city-region raises spatial and economic problems in the region: protection, accessibility (infrastructure dimension of the cityport) and the quantity and qualitative elements of urban development (urban dimension) and noise problems. The backside of the economic success is an increasing pressure on the airport vicinity in terms of urban development and traffic congestion. Therefore, the discussion rose whether the airport potential in the city-region should be protected. Formally, the policy of protecting the site from over-development is applied in the 2003 regional plan (Provincie Noord-Holland 2003). In this regional plan, the province distinguishes strict zoning including tests of airport-relatedness and not-airport relatedness of office and industrial locations: the closer to the airport, the more airport related businesses should be. SADC and the province Noord-Holland check the airport-relatedness by fixed criteria. Today, in practice, the criteria are more flexibly interpreted (Interview Mast and Schaafsma 2005), which contributes to the further clustering at the airport's centre; a problem discussed in chapter 7.8. Project developers now conclude the market should sort out the activities by land prices and rent levels, as illustrated by the recent moves of Numico and Microsoft headquarters to Schiphol Centrum.

Second, the clustering of offices at the airport territory and beyond puts accessibility under pressure. Accessibility is good at the airport centre itself but more problematic in the airport region, where accessibility is a key to further city-region development. Schiphol Centrum is well accessible by train and motorway and the airport invests with the region and central government

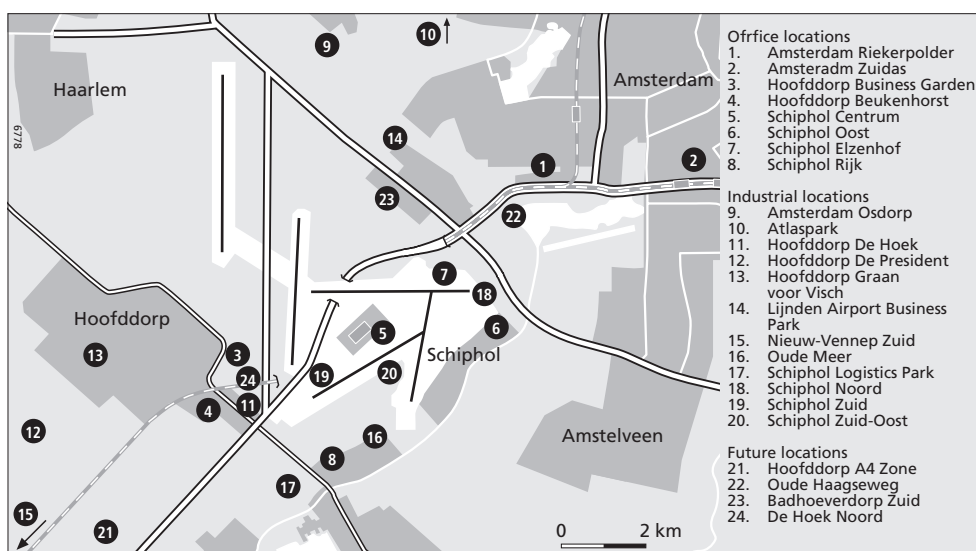


Figure 4.11 Office and industrial locations in the Schiphol airport region (Source: Amsterdam Airport Area (2005))

in motorway expansion, e.g. the recently opened A5 motorway and the planned investment in the A9 motorway by-pass. However, the region itself is trapped in a Gordian knot on how to bypass and expand the provincial road N201. One should not overlook the importance of the flower auction south east of the airport in Aalsmeer, a rapidly growing cluster that offers 40.000 jobs including suppliers and services and, which despite lower land prices, seriously competes with the airport territory.<sup>18</sup> Therefore, the flower auction in Aalsmeer and business sites as Schiphol Rijk and Zuidoost are queued during rush hours. It is clear that the region has grown more rapidly than the infrastructure can facilitate, and that bottleneck solving-strategies and budgets were used instead of infrastructure as a facilitator of urban development (Interview Jacobs 2005). This conclusion can be drawn for both car infrastructure and public infrastructure. Although there is a train running underneath and stopping at Schiphol, Hoofddorp and Nieuw-Vennep, no light rail or subway network is developed, and the Zuidtangent bus lane is considered 'high-quality' public transport.

Third, in the rapidly urbanising airport region, matching office and industrial property supply and demand is difficult to manage, in terms of quality and quantity. The national plan PKB Schiphol in 1995 reserved new areas for industrial and office locations in the region. However sites are due slow land acquisition and lack of coordination delayed for development. In addition, the period 1995-2000 shows a higher demand of airport related sites than expected (Ministry of Transport and Water Management 2000). Mismatches exist, not only in time, but also in type of development. It is more attractive to develop offices and hotels than warehouses and distribution sites, since they generate more returns for developers, asset managers and the municipal landowners. The effect is an oversupply of offices (12% vacancy) and undersupply of industrial sites.<sup>19</sup> Recent large-scale plans for a distribution city *Werkstad A4 Zone* aims to bring the region in balance (Air Cargo Nederland *et.al.* 2005).

Fourth, one of the repeated discussions is competition of office and industrial locations within the region in the context of the quality of development.<sup>20</sup> There is some variety in office locations in the airport region. This variety is, in general, planned, and is not a natural development process of specialising locations as in Frankfurt Rhein-Main. However, some office and industrial locations, and in particular warehouses, suffer from 'hit-and-run' development (Interviews Meijdam 2005 and Tordoir 2005). These locations have lower quality standards, lack a long-term market value and lack unique identities; their contribution to the city-region's competitiveness on the longer run might be limited. There are few technology-intensive manufacturing and distribution sites in the Schiphol area.

Finally, although the economic potential of the airport as a cityport might be taken to its limits for retail, office, services, warehouses, distribution and manufacturing, the problematic relationship with housing for an airport city or an aerotropolis is self-evident. There is rigorous analysis in the region to measure and calculate aviation noise pollution, an issue recently evaluated by the Committee Eversdijk (2006). Due to the fifth runway, the number of citizens suffering from noise hindrance has decreased, in particular in Amsterdam and Amstelveen, but in return, in newly affected areas as Leiden and Castricum, people suffer from noise hindrance that is lower than official standards. New governmental regulations have direct impacts on the development sites in the region, and do not allow large-scale housing construction in the official noise contour, and industrial construction in the runway approach routes close to the airport. These regulations have direct impact on the stakes of project developers in the region. Nevertheless, noise or safety consideration did not negatively influence house prices in the affected area.

#### *Frankfurt as a polycentric airport city*

The development of the Frankfurt Airport as a cityport in the city-region is politically sensitive. This is mainly due to the fact that the positioning of the airport in the city-region is different from the case of Schiphol<sup>21</sup> (Interview Dehn 2003, Joosten 2003): the airport is located in the city forests that have a higher environmental and emotional value than polders in the Randstad. Schiphol is located in the polder; a concentration of uses is possible and necessary with increasing traffic jams in the Randstad. Frankfurt has better regional accessibility and a corporate office at the airport itself is not necessary. Furthermore, the American Army settled for decades in Gateway Gardens near the airport and limited the urban development. For these reasons, Frankfurt airport has developed less near the airport. The infrastructure access is excellent with direct access to Germany's most important highway intersection of the north south route Hamburg-Basel and the west-east route Köln-München, and with the underground light rail and long distance trains. The terminal and commercial real estate areas are concentrated in the north near the highway, and cargo handling is concentrated in the southeastern part of the airport territory.

Near the two terminal buildings with shopping facilities, Frankfurt airport centres (FAC<sub>1</sub> and 2) with the Airport Conference Centre are the main office facilities. Recently completed is the AIRRAIL center on top of the new high speed train station, near the passengers terminals a masterpiece of architecture and civil design of 170.000 square meters of offices, hotel and retail. Opposite of the airport terminal in the northern domain of the airport, next to the A<sub>3</sub> highway, is a recently constructed hotel and Lufthansa office development (see Figure 4.2).

The southeastern part of the airport concentrates cargo facilities in the first and second line of handling, where a third terminal is planned. In 2006, trade logistics centres are constructed at 72 hectares Mönchhof, a location at the Rhein River between the city and airport. The 35 hectares Gateway Gardens US Army base in the northeast in the motorway “armpit” is a location for mixed-used redevelopment after 2005 (FR 27.09.2005).

In the discussion of the position of the airport within the regional economy, the central issue of airport planners’ debate is whether economic activities should concentrate at the current location or not: protection or exploitation of the site. The plans for concentration include the expansion of the AIRRAIL centre, Cargo City Süd and the future redevelopments of the former military base Gateway Gardens and the bankrupt Holzmann industrial site in Zeppelinheim, Neu-Isenburg (FAZ 15.06.2004). Concentration near the airport emphasises that the airport obviously generates jobs, and this invites support for new runways.<sup>22</sup>

Specialists worry whether the natural boundaries will be maintained in the near future. Companies as Lufthansa threaten to leave Frankfurt and move to München and are successful in this power play; trees of the forest had to be cut to build the training centre between railway and motorway. Furthermore, Fraport claims that the third runway would generate an additional 100.000 jobs, a claim heavily contested in public (FR 30.09.2005). Another controversy is the large Airbus A380 accommodation near Cargo-City Süd, which replaces distribution from Kelsterbach to the airport area (FR 23.08.2005). Urban development near the airport remains limited and restricted despite the addressed exceptions.

Most actors see further expansion of the airport as necessary for the region, despite the local environmental problems and opposition. Particularly the fact that the airport creates all kinds of jobs is considered as fair; not only high-educated workers benefit. In return both airport and forest should be protected from urban development. The airport is in the city-region considered as ‘*Ein Standort unter vielen*’ (one location amongst many): there are several cityports in the region and only airport-related activities need direct settlement near the airport (Interview Dehn, Bothe and Kornmann 2003). Therefore, we call Frankfurt here the polycentric airport city.

The dominant idea of developing a polycentric airport city while protecting the city forests is supported and carried out by the well-developed train and car infrastructure network in the city-region.<sup>23</sup> The development of back office cities in Niederrad and Eschborn, transportation sites in Kelsterbach, retail and corporate headquarters in Frankfurt’s downtown and hotels in Darmstadt and Frankfurt are supporting the notion of a polycentric region with the airport and CBD as main centres. The widely developed light rail network and centres development in the Frankfurt city-region supports a further polycentric development of businesses using the airport, most with airport access within fifteen minutes by train – the infrastructure dimension of the cityport with high node values as found in the previous chapter. The transit network, tax competition and town specialisations furthermore avoid uniformity of commercial real estate with moderate quality in the city-region.

There is, finally, also a political argument for exploiting the potential of the (polycentric) airport region. If the airport expands, the neighbouring communities want something in return for increasing noise pollution and safety concerns. The general idea of airplane noise pollution causing municipalities to lose attractiveness, however, cannot be proven. Compared with other municipalities in the Frankfurt Rhein Main area, there are no negative, but rather, equal social

and economic impacts, of the airport in terms of demographics, personal income, tax revenues, unemployment and land prices in the affected municipalities (Langhagen-Rohrbach 2002).

#### *Narita as a sprawled aerotropolis*

Narita International Airport has limited development of the area surrounding the airport. For an airport as a cityport, it is crucial that the airport is considered as a place to stay, and Narita is for a variety of reasons, is not considered this way. The remote location chosen for the airport is the result of strategic, long-term planning, that relieves the citizens of the Tokyo city-region from noise and safety concerns into the far future. However, activists and landowners opposed runway construction and further commercial urban development successfully (see section 4.3). Despite the local opposition to sell the land, the airport attracted airport-related industry to Narita on a moderate scale. Urban sprawl in the wider airport region is the result, and therefore this case can be called a 'sprawled aerotropolis'.

Although the economic impact of the airport is considerable for the small towns near Narita, the absolute number of hotels, warehouses and offices in the wider airport region is limited. Only recently are relationships slowly improving and development plans made by the prefecture government. The name was changed to Narita International Airport City. Although the regional government planned manufacturing sites, it is mainly cargo handling and distribution in the airport vicinity that is demanded, as Japan changed from an export manufacturer in the 1970 and 1980s to an importing service economy today.

The major spatial and economic problems in the Narita airport area are not only the urban sprawl in the region, but also accessibility to the remote location and limitations to airport expansion. First, Narita has no possibility to expand the intensively used runway-system, because of the deep-rooted land ownership conflicts, and despite the local importance of jobs.<sup>24</sup> At the airport, the main focus is therefore on the airside with the current redevelopment of the terminal buildings (Interview Namekata 2004). This will increase the currently limited service facilities and shops. Office and congress facilities remain limited to the airport buildings, where the far distance to Tokyo and the negative image are main reasons not to open offices in Narita. The large distance to Tokyo and Haneda airport however, attracted hotels to the airport area for transfer passengers taking early flights from Narita International Airport.

Narita's cargo handling is sprawled over the wider region, partly due to the unavailability of sites, and partly because of regulations. The city of Narita is stricter in planning than surrounding smaller municipalities (Interview Yamada and Kawaguchi 2004). Most of the industrial parks are therefore located in smaller neighbouring communities as Shibayama and Sakura in the southeast of the airport. AMB Blackpine's seven-hectare air cargo centre in Sanlizuka is one of the few cargo handling centres in Narita, although the city preferred housing development there. It is only recently that cargo distribution is clustered in seven planned airport vicinity industrial parks (see Figure 4.12).<sup>25</sup>

The current poor accessibility (by Japanese standards) with travelling times ranging from one to three hours to Tokyo is another major problem. For this reason, the Narita sprawled aerotropolis is not only limited to the area shown in Figure 4.12. Real estate developer Mitsui-Fudosan invested in Makuhari, a location halfway Narita and Tokyo. Despite large scaled investments of Chiba prefecture and Mitsui Fudosan, even Makuhari is still considered as too far away from Tokyo and unpleasant to stay after business hours (Interview Tada and Yoshimura

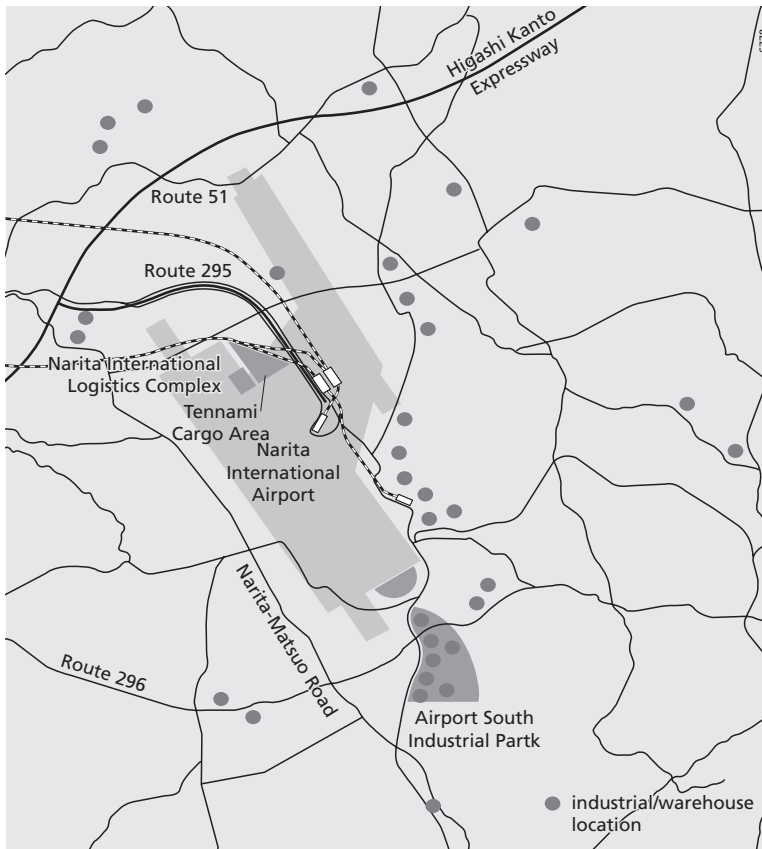


Figure 4.12 Industrial locations in the Narita airport region

2004). Therefore, Makuhari could not cross the gap between airport and city in the attempt to further develop the network of cityports in Tokyo more to the east. The accessibility will be improved in 2010 when an upgraded connection New Narita Rapid Railway is reducing travelling time from Tokyo-Nippori to 36 minutes, which will have a major positive impact on Narita's distance and competitiveness (MLIT 2004).

*Haneda, isolated airport island in Tokyo Bay*

The connection of Haneda to downtown Tokyo, Kawasaki and Yokohama is well developed with a monorail, trains, and a highway that passes the terminal buildings underground and the bridges. The short distance to the urban centres is the main reason why the demand for hotels, offices and other investments on the airport island itself is limited. In addition the focus of Haneda, is solely on the airside of the airport island. The two terminal buildings offer space for shops and a few hotels. The recent opening of Terminal 2 enlarged the capacity of these activities, but the total volume and expansion opportunities and plans for other urban developments on the island of nearby are limited. Furthermore, there is no kind of airport city marketing or strategy at Haneda.

Haneda hopes to become an international airport with limited flights to East Asia that might lead to 130,000 extra jobs in the Kanto-region in 2009 (MLIT 2003:25).

Environmental issues like noise and safety are limited with the concentration of international flights in Narita and the location in the Bay of Tokyo.<sup>26</sup> Major spatial-economic issues near Haneda are the isolation on the airport island and closely related to this is a limited spin-off of activities in the bordering areas and the remote location. Although the accessibility of the airport to Tokyo is well developed and relatively short, the position is as the awkward age: it is not as remote as Narita, but not close enough to the city to count as a major business location, or in other words: cityport. For example, ANA's headquarters were first located in Kasumigaseki, Tokyo's CBD, when the aviation sector was hit hard and ANA had to move to the cheaper location of Haneda. Employees and visitors found Haneda too far away and inefficient since it requires one hour travelling time. After one year, ANA returned to the city and opened its main office in the new business district Shiodome.

The limited spin-off of urban development related to the airport in the neighbouring western areas are enforced by the older chemical and manufacturing sites in Kawasaki as well as housing in Ota ward that both turn the back to the airport island with Tamagawa river as a borderline. The position of Haneda could not compensate the massive loss of jobs in Ota and Kawasaki as a result of manufacturing outplacement to China and South Korea (Fukao 1997). Plans for redeveloping the coastline in Kuko-Nishi and the Kawasaki Tamagawa river delta are under discussion, but difficult due soil pollution (Figure 4.3). The city of Kawasaki hopes a new bridge connecting the city with the airport can accelerate coastal redevelopment, with hotels, entertainment and logistic parks in the delta of Kawasaki (City of Kawasaki 2003, 2004).

However, downtown Tokyo, with its recent large-scale redevelopment, and at a secondary level Hokimi, Toyosu and Kiyosumi in the Bay of Tokyo, are, in the near future, more attractive for redevelopment than Haneda (Interview Sato 2004). Project developers as Mitsui Fudosan are nevertheless interested in developing real estate near the airport island in Ota ward or Kawasaki (Interview Tada and Yoshimura 2004). ProLogis is also interested in sites, when available for the less-welcomed air cargo handling (Interview Tanizumi and Kumuda 2004). Furthermore, the airport that is in the geographical heart of Tokyo Metropolitan Area does have some urban development spin-off, in terms of manufacturing and distribution, halfway down the Tokyo-Haneda monorail line in Ryuutsuu.

Not only Haneda but also the airports of Kansai near Osaka and Chubu near Nagoya are airport islands located in bays and cope with similar spatial-economic problems. Although Kansai's airport is located offshore and relatively far from Osaka, public and private initiatives are undertaken to create a spin-off of economic activities along the Kansai shoreline. A railway and highway bridge connects the island to the newly founded Rinku area, where manufacturing, distribution, leisure and office activities are planned by Osaka prefecture. However, economic recession and high land costs of the reclaimed land are making an economic spin-off for the new Rinku Town (106 hectares) and Hannan Sky Town (171 ha.) in the last decade problematic (Osaka Prefectural Government 2004).

Since 2005, the CJIA Co. Ltd. builds and runs the new Chubu International airport, and appointed a former Toyota CEO to reduce the costs of the airport construction and attract business to the airport. Hotel, air cargo handlers and many shops in the terminal are

attracted to the airport territory (Chunichi Shimbun 4.10.2004; Mainichi Shimbun 7.10.2004). The northeastern part of the island, the bridge and land at the Tokoname shore is reclaimed for economic spin-off of the airport under authority of Chubu prefecture. The Tokoname Rinku Town is of a similar size as Kansai's Rinku Town and this land is also not developed according to potential due to high land prices (Interview Takayama, Futatsumata and Tenda 2004; Chunichi Shimbun 30.9.2004). It turns out that in the case of airport islands it is to a certain extent, possible to attract tourists to the terminal as a theme park and businesses in the vicinity of the airport terminals and cargo handling, but development at reclaimed sites for business settlements are hard to plan, especially in the case of Japan with high land prices.

In sum, the landside development of the airport case studies shows a variety of urban dynamics. The hub airports of Schiphol and Frankfurt attracted many urban land-uses and could become airports as a cityport. However, due to different settings and land use planning, Schiphol and Frankfurt vary in their final shape: at Schiphol activities cluster nearby the airport (airport city), while activities attracted to Frankfurt's airport cluster within airport's reach (polycentric airport city). The picture in Tokyo is different. Local opposition and lack of regional planning led to regional sprawl in the Narita airport area. This happened despite the economic importance of the airport for the small towns. Also Haneda airport could not develop as a cityport due to the attractiveness of downtown Tokyo, land use planning, and old industries in the airport vicinity. Haneda has therefore become, similar as Kansai and Chubu, an isolated airport island in a bay.

#### **4.8 Conclusion**

Airports and airport vicinity require relatively high rents for offices, shops and warehouses, even if they are remote on airport islands or in the case of Narita far outside the city. The previous chapter pointed out that these locations are cityports with best accessibility in the city-region and to the outside world. But could these airports become true cityports? This chapter therefore questioned the position of the airport as a gateway to the city-region by focussing on airside, airport, landside and further regional development, with major differences between the case studies.

In historical perspective, the airport case studies have a similar life cycle of start-up, slow and rapid growth, and currently are amongst the largest airports in the world. There are major differences in type of airport, where Tokyo is a major destination and Frankfurt and Schiphol are hub airports with high transfer rates. These transfer passengers add to the network quality, the city-region as a business location and incorporates path-dependent development in an international battle for more passengers and freight. Tokyo's airports are too expensive, inward-oriented and lack a distinct airport strategy to compete on this level with the convenient new airports in Asia. The investments in airports on remote locations create a financial burden for the airport authorities, but are also future-oriented since they do not have noise- and safety problems any longer. Frankfurt Rhein-Main and Randstad, with the airports in the centre of the city-region have major noise and safety problems, where politicians repeatedly decided not to relocate the airports. On the other hand, the close distance to the cities is a major spatial-economic competitive advantage, too.



As a successor of changing airlines competition and strategies, airports are increasingly challenged to compete in commercialisation, globalisation and privatisation. Non-aviation revenues are becoming more important than aviation in order to spread business income, which have major effects on the airport environments with increase of real estate, in particular shops, offices and industrial sites, but also parking. As an effect of competition, ownership structure changes from public to private shareholders. In the Frankfurt and Haneda case studies, that led to investment in airport expansion. In new Japanese airports as Centrair, privatisation lead to cost reductions and income increases, with higher efficiencies.

In terms of economic spin-off, the cases show an above-average number of jobs that are created at the airport, in the airport vicinity and wider into the city-region. Haneda, with relatively few jobs at the airport, and as a domestic airport with fewer commercial activities, is an exception, hardly following international commercialisation and privatisation that generates new revenues. The economic impacts of over 60.000 jobs locally and a similar additional number regionally in Schiphol, Frankfurt and Narita are considerable and extrapolated in order to push for airport expansion. In a wider comparative perspective, liberal market economies have higher productivity and jobs near airports but regularly are a less attractive place to stay or settle business.

Airside developments, airport commercialisation and privatisation and economic impact, however, do not necessarily lead to full use of the spatial potential the airport offers; as a place to stay or as a business location, as a gateway to the city-region and thus the airport as a cityport. The case studies analysis show here different results.

Schiphol exploited the airport area as one of the pioneers under the airport city concept with retail, offices, hotels and parking. Currently the wider region benefits from the spin-off of the airport as a business location, but not everywhere has high quality of development and sufficient infrastructure has been developed. The future threat of Schiphol is the classic future of airport exploitation: be ruined by its own success since the airport on the one hand needs another terminal which makes it less convenient for transfers and the airport becomes less accessible by road and rail due urban development in the wider region.

On the contrary to Schiphol, bitter political clashes that even turned into riots in Frankfurt led to a more protective attitude towards the airport environs and development of locations more concentrated and better accessible by road and rail: the polycentric airport city. Apparently, Frankfurt was able to find trade-offs in deals between proponents and opponents of the airport. Fraport has to prove that this creates new jobs and bans night flights.

Although riots and political clashes were also at stake in the planning and expansion of Narita, here no trade-offs or deals were created. Narita is a major success in generating jobs, but in terms of spatial planning, a situation exists with both government and citizens as losers. In the end there is an airport with one and a half runway, and economic activities are sprawled all over the region and poor access to the remote airport.

Haneda did not suffer from strong opposition and is located in the heart of the metropolitan area of Tokyo, a convenient gateway to the city. It is Asia's largest airport but it neither generates many jobs near the airport, nor does it create an attractive business location.

The case studies point out that the airport as a cityport to the city-regions have different results in Schiphol/Randstad, Frankfurt/Rhein-Main and Narita-Haneda/Tokyo. The urban and

economic reasons for these mixed results are pointed out in the last chapters. Many questions are however, unanswered and new issues are raised. In particular, the question is why, despite their economic success, Schiphol and Frankfurt could become cityports when the Japanese airports could not? On the other hand, the development strategies at Japanese airports might be more sustainable for the long-range future. In order to answer these kinds of questions, economic competitiveness has to be widened to institutional competitive advantages and disadvantages. Therefore, actor-oriented institutional analysis in the following chapters is required, in addition to conducting spatial-economic analysis.

## Notes

- 1 For wind-technical reasons there is a 5-runway system. The major runways are ranging between 3,300 and 3,800 meter in length. In fact there are six runways if the older 2000-meter Oostbaan is included in the counting, used in case of southwestern storm as a runway extension of the Kaagbaan.
- 2 The term mainport is a concept only used in the Netherlands, in particular by urban planners. The harbour of Rotterdam and Schiphol airport are appointed as the two mainports. It was introduced in the Fourth National Memorandum on Spatial Planning (VROM 1988).
- 3 Although the Tokyo Metropolitan Government suggests Yokota as a third civil airport, US Army and the Japanese Ministry of Foreign Affairs are not exploring the possibility (Japan Times Weekly 03.07.2004).
- 4 Despite it's official name Tokyo International Airport, Haneda is mainly a domestic airport with only two foreign destinations.
- 5 For example, in the 1990s the hubs of Brussels, Copenhagen, Vienna and Zurich lost status as intercontinental hub due to the bankruptcy and take-overs of national carriers by larger airlines (Burghouwt 2005).
- 6 However, the long-term outlook does not give guarantees for these geographically close duo-hubs. The failure of geographical concentrated duo-hubs in the U.S. due economic network efficiencies might favour the geographically dispersed One World Madrid-London duo-hub in favour of the geographically concentrated European duo-hubs of Star Alliance and Sky Team (Burghouwt and de Wit 2005).
- 7 In aviation economics, it is more efficient to combine international and national flights than to separate them. Due the changing position in the alliance structures, JAL demands a domestication of Narita Airport and perhaps a reverse assignment of duties between the airports: Narita as domestic airport, Haneda as international airport (Interview Burghouwt 2005).
- 8 In performance benchmarking airports are often categorized in terms of number of passengers, tons cargo freight and aircraft movements. Aircraft movements however do not show the efficiency of the airlines and airport passengers and cargo transport. It is common to measure the performance in workload units (WLU), where one WLU stands for one passenger or hundred kg freight (Graham 2001).
- 9 Although there is no data available for Haneda, it is likely that the revenue structure of the airport is significantly different from the other cases. Domestic airports as Haneda need less hotels, parking, business facilities and other services.
- 10 There is a wide range of definitions and economic sector effects that makes precise international comparisons hard. Furthermore, specialised research of York Aviation for ACI is airport sector related and therefore outcomes are sometimes seen as exaggerated by specialists. Graham (2001) follows the ACI working method. More recently, economic effects are toned down, in order to avoid the problem of double counting; a job not created or disappearing at the airport does not exclude replacement by other kind of jobs (see Overview on Economic Effects of Infrastructure OEEI-guidelines in the Netherlands, Ministry of Transport and Water

- Management 2000, CPB 2000). In practise, it is still hard to say what is exactly airport related and what not. Here we follow Graham and ACI comparable research results.
- 11 According to York Aviation, on-site jobs should be multiplied by 2.1 to estimate the number of indirect and induced jobs nationally; on-site jobs multiplied by 1.2 to estimate the indirect-induced jobs regionally; on-site jobs multiplied by 0.5 to estimate the catalysed jobs (York Aviation and ACI 2004).
  - 12 The capacity, destinations and jobs alone are not enough to determine the competitiveness of airports. For economic development of the city-region it is important relate the number of jobs to the added value of the airport. Seen on a global scale, the revenues per employee are highest in liberal market economies (Graham 2001). Efficient airports however do not necessary lead to high added value and creation of jobs. In the ATRS benchmark of 2005, Tampa, Singapore and Copenhagen turned out to be the airports with highest factor productivity. In Europe, Schiphol has a moderate position. Frankfurt is due the fact that this airport handles her own cargo not considered a high-productive airport. In East Asia, Narita and Kansai have one of the lowest relative factor productivity, but due high costs still make money. Therefore, after Australia and Taiwan, Japanese airports have the highest total labour productivity in Asia.
  - 13 Including double counting on the national level (see note 10), and excluding effect on travel behaviour.
  - 14 Decrease of jobs in the period 1991-2001, which is in particularly caused by manufacturers moving outside the Kanto region and towards Korea and China (Van Wijk 2005).
  - 15 Position based on surveys of passengers satisfaction, available at [www.airlinequality.com](http://www.airlinequality.com)
  - 16 Güller and Güller (2002:165) found a continuous effect of every additional flight generating 1 square meter of office development in the Amsterdam airport region: from 100.000 square meters in 1965 to 550.000 square meter in 2000, although an causal relationship can not be proven.
  - 17 Schiphol Real Estate (SRE) is within the Schiphol airport territory active in all office locations except Schiphol Rijk; areas that do not harm flights. This includes major hotels and world trade centres in Schiphol Centrum. Surround the green airport territory, Schiphol Area Development Company (SADC) develops industrial sites at Schiphol Rijk, Riekerpolder, Lijnden, Oude Meer, SLP. Project developer Chipshol developed office locations at Schiphol Rijk. In the near future large scaled developments are foreseen in A4 Zone (SADC/Haarlemmermeer) and Badhoevedorp, where Schiphol foresees a second terminal in the future and landowner Chipshol reserves land for urban development.
  - 18 As Mr. De Groot of the flower auction argues, the flower mainport is developing independently from the airport, with only 3% of export using Schiphol and 2% of export using other cargo airports. However, the airport-flower mainport interrelations become more important with the increasing production in Africa. The regional plan foresees expansion of the flower auction with 90 hectares net and the greenhouse areas in Rijssenhout of 300 hectares net. However, in Rijssenhout currently Schiphol wants to reserve land for a 2nd Kaagbaan runway (Interview De Groot and Lambrechts 2005).
  - 19 Rents vary from €130-€400 per square meter for offices to €65-€80 for industrial sites, and have a higher status in the urban hierarchy and therefore are more welcome. The result in 2005 is 12% vacancy of offices on average, one third price drop of rents, and a shortage of distribution sites (Haarlems Dagblad 14.01.2006). Quite in contrast, in terms of demand cargo experts praise the competitiveness of the airport as very efficient infrastructure with skilled workers, and point at the strong logistic complex based on past and present aviation and cargo real estate knowledge, and the rapid development of the Chinese market. The strongest growing world trade lane is China-Schiphol, annually 26% growth on average. Most actors found the Schiphol's expected growth of 5% annually for the coming years reliable (Interview Wade 2005).
  - 20 Actors as office developers at Schiphol Real Estate and the project coordinators at Amsterdam-Zuidas simply put aside the discussion by arguing that not cities within the region should compete, but Randstad cities

should compete with Frankfurt or London. This might be true as we found in chapter 2, and is in particular not problematic for high-class development as Schiphol-Centrum and Zuidas.

- 21 It is often argued that Frankfurt's airport would compete, more than Schiphol, with the downtown of Frankfurt. Haro (1995) concludes in her thesis the limited competition of the airport as a shopping location for employees and citizens, since retail prices and parking costs are too high for daily use by citizens; the region does not have to worry that citizens will buy their vegetables at the airport
- 22 This has happened before with the construction of the Airport Center in terminal 1 of the airport that accommodates 4000 jobs (Interview Schien 2003).
- 23 Rhein Main Verkehrsverbund (RMV) has a crucial position in the development of public transportation. RMV integrates infrastructure and urban development in plans, but some exceptions show that because of tax competition between communities this is not always happening in practise. Cheaper new business locations and residential areas are built without light rail station nearby (Interview Lunkenheimer and Stanek 2003).
- 24 Expansion of the airport would lead to an extra increase of 0.5% in manufacturing jobs and 0.5% to 2.5% in service jobs in the region every year until 2010 (NAA 2000).
- 25 Facilities are clustered in 243-hectare plot areas in a ten-kilometre radius of the airport ([www.pref.chiba.jp/business/narita/narita-e.html](http://www.pref.chiba.jp/business/narita/narita-e.html) 2006). The largest industrial park is the remote 114-hectare plot area in Sakura. Another development is ProLogis' two Narita Parcs three kilometres from the airport.
- 26 Recently the direction of the planned fourth runway was changed due local opposition on the other side of the Bay in Chiba that feared increasing aviation noise problems. Noise hindrance can furthermore be found at Daiba Island in Tokyo Bay due to approaching routes (Nihon Keizai Shimbun 26.5.2004).

## Intermezzo: Images of Cityports



*Kansai Intl.: Hub to China*



*Frankfurt Römer, traditional downtown*

*Frankfurt Airport  
Gateway Gardens*



*Tax competition at border  
of Eschborn (build-up) and  
Frankfurt (vacant land)*

*Specialised subcentre  
Amsterdam ArenA*

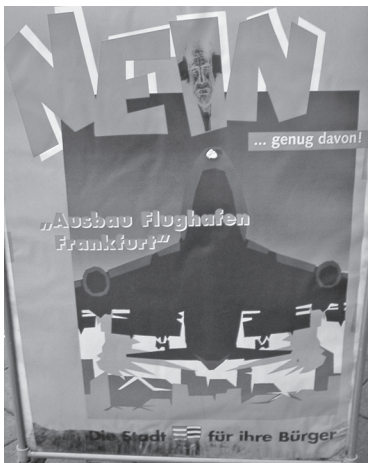


*Airport Gallery Narita*

*AIRRAIL Center outside (airrail.de)*



*Poster 'No' against Frankfurt  
airport expansion*



*Shops and restaurants Chubu Intl. Airport*



*CBD  
Den Haag*



*Riot's CD Narita*



*CBD  
Frankfurt*



*Tokyo Disney  
Resort*



*Vacant land Kansai Rinku Town*



*Terminal Kansai Intl. Airport*



*Vacant land  
Chubu Rinku  
Town*

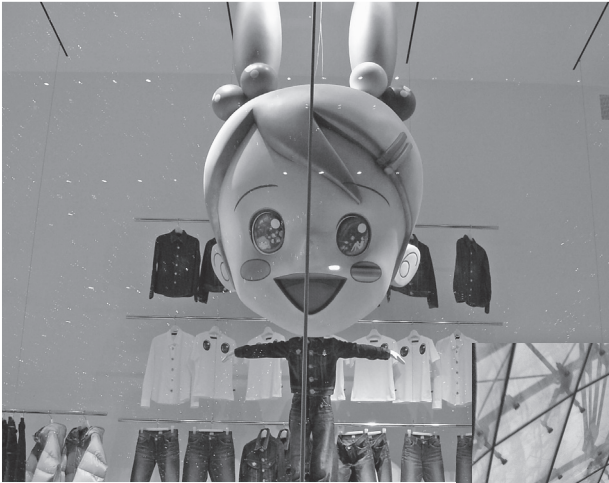
*Haneda Airport Wedding*



*Haneda's new Terminal 2*







*ABC Roppongi Hills Tokyo*

*AIRRAIL Center inside*



*Airport City Schiphol*





*Tokyo ABC  
Roppongi Hills*



*Closed shops Kansai  
Intl. Airport*



*Amsterdam  
NBD Zuidas*

## 5 Actor-oriented institutional analysis

### 5.1 Introduction

In the second part of the thesis (chapters 5-9) the focus is on the *institutional* position of airports as cityports in the city-region, whereas in the previous chapters the *spatial-economic* position of these locations that function as a transport node, place to stay and a port to the city-region with its economic, infrastructure and urban dimension was central. Chapters 2, 3 and 4 offered insight in the object of the airport as a cityport in the city-region: regional competitiveness, the development of cityports, and the characteristics of the airport environment. The conclusion of the found results of cityport development near the airports pointed out that spatial-economic reasons alone can only partly explain these mixed results, and additional institutional analysis is called for.

This chapter will discuss the role of actors involved and the rules of the game that co-determine the final outcome of the spatial and economic development in theory. This theoretical and methodological framework will be applied to institutional analysis in chapters 6-9. With this institutional framework the second research question is addressed, which stresses the role of actors in actor coalitions, their strategies and the economic, financial, governance, legal and socio-cultural institutions involved in the process of airports as cityports in the city-region. This will frame the effective and less effective, efficient and less efficient institutions and institutional arrangements. Where hampering or problematic rules of the planning game are found, the third research question comes to the fore: which institutional changes are necessary to make better use of spatial and economic opportunities, and can institutional inertia be avoided or decreased? This issue of institutional dynamics will be addressed in theory here, and applied to the case studies in chapter 9.

This chapter first discusses actor-oriented institutional theory based on new institutional economics (5.2). This provides a scheme for understanding institutional dynamics in section 5.3. Institutional learning and feedback to economic development is discussed in 5.4. Chapter 5.5 attempts to make institutional analysis an applicable methodology for airports as cityports in the city-region. Conclusions are drawn in 5.6.

### 5.2 Actor-oriented institutional analysis

#### *New institutional economics*

The development process of airports as cityports in the city-region can be considered as a collective action problem, which focuses on the question how and to what extent actors and organizations are dependent on each other to make good exchanges or trades. For these collective action problems there is a need for a mechanism that manages this balance between supply and demand (Frances 1991). Mainstream economics focuses primarily on prices as the market setting

mechanism. Institutional economics however focuses not only on price setting, but also on trust and imposed rules as mechanisms: how do institutions affect the behaviour of individuals? In practice, markets are usually not open markets with free access; they also show characteristics of networks with limited access to newcomers, and hierarchies where actors in charge determine the access to the market.

In other words and in the context of this thesis, we argue that the economic (price-setting) factors discussed in the previous chapters are not sufficient to understand the process of actor coalitions striving for trades in order to develop the airport as a cityport; economic factors alone did not explain the different results in the development of airport areas in the case studies. Including institutions such as trust and imposed rules will contribute to a better understanding of development processes.

### *New institutionalisms*

In institutional theory, Hall and Taylor (1996) distinguish three schools of thought: historical institutionalism, rational choice institutionalism or new institutionalism in economics, and sociological institutionalism. Here these three new institutionalisms will be briefly summarised and essential elements will be singled out for application in institutional analysis of the case studies.

Historical institutionalists define institutions by and large as formal or informal procedures, routines, norms and conventions embedded in the organisational structure of the political economy. Hall and Taylor (*ibid.*) summarize historical institutionalism by four characteristics. First, both cultural and calculus approaches to understand institutions are used eclectically in institutional analysis. The calculus approach focuses on strategic behaviour of actors, while the cultural approach stresses that behaviour is not fully strategic, but bounded by an individual's worldview. The second feature is the prominent role that power and asymmetrical relations of power play in institutional analysis; some groups of actors have disproportionate access to the decision-making process compared to others. Third, historical institutionalism is close to the perspective of historical development. Actors' behaviour is path-dependent, as institutions are seen as relatively persistent features of the historical landscape, often central factors pushing development along a set of laid-out paths. Fourth, institutions are not seen as the only causal force in politics; it is commonly accepted that socio-economic development and diffusion of ideas are also contributory.

Rational choice institutionalism focuses on the strategic behaviour of actors. It provided analytical tools such as property rights, rent-seeking behaviour and transaction costs for the understanding of institutions. Williamson (1975) argued that change in organisations could be explained as the result of an effort to reduce the transaction costs of undertaking the same activity without such an institution. First, rational choice institutionalists posit that the strategic actors have a fixed set of preferences and tastes and behave entirely instrumentally to attain these preferences. Second, they tend to see politics as a series of collective action dilemmas, where individuals try to achieve their preferences. Third, rational choice theory emphasizes the role of strategic interaction in the determination of political outcomes. Actors' behaviour is not driven by impersonal historical forces but by a strategic calculation that is deeply affected by the actor's expectation of the behaviour of others. Finally, Hall and Taylor (1996) see deduction as an essential characteristic: the organisational structure is focused on minimising transaction, production, or influence costs.

Sociological institutionalists argue that institutions should be seen as culture specific practises. They first define institutions much broader than political scientists by including formal rules, procedures or norms, but also symbol systems, cognitive scripts and moral templates. This breaks down the conceptual divide between institutions and culture; culture itself is redefined as institutions. Second, sociological institutionalists argue that individuals are socialized into particular institutional roles and that they internalise the norms associated with these roles. Therefore, what actors see as 'rational action' is itself socially constructed. Third, new institutional practises are not the result of advanced means-ends efficiency but because they are socially legitimate and appropriate. This is the logic of social appropriateness in contrast to the logic of instrumentality.

These schools partly overlap and, according to Hall and Taylor (1996), can be applied jointly in new institutional analysis if the most extreme assumptions of each school are relaxed. A combination into one new institutionalism makes use of the best elements of each school, while excluding weak elements.' Previously, institutional economics focussed mainly on formal organisations, juridical rules and contracts, here referred to as hard or formal institutions. Historical institutionalists like March and Olsen (1984) were followed by former rational choice institutionalists like North (1990) who acknowledge the importance of soft or informal institutions, for instance values and norms, behaviour and practises in institutional analysis. Since then, new institutional economics developed rapidly with the focus on social systems of production in the 1980s and 1990s, e.g. Cox (1987) and Piore and Sabel (1984). Hall and Soskice (2001) found that these studies went too far by overemphasizing the role of governments and unions and underestimating the role of the market. They aim to put back the corporation in the centre of analysis of capitalistic systems without ignoring the role of public institutions. Hall and Soskice (*ibid.*) therefore see institutions as socializing agencies where relationships with economic actors are central.

#### *Actor-orientation and institutional dynamics*

Traditional institutional theory tends to underestimate the importance of human acting in the creation and destruction of institutions (Scharpf 1997, 2000). Scharpf is a notable exception by including actors in institutional analysis (Hall and Soskice 1995). Persons are the players of the 'game' and represent the actors that act within the institutional rules of the game. As Visser and Hemereijck (1998) argue, the institutional context does not determine the policy outcomes, but it does define the way the game is played by the actors, canalising and shaping the policy arena in three ways.

First, the institutional context co-determines the relationships of power and influence between actors. Second, rules of the game influence the nature and style of decision-making. This decision-making process is sensitive to changes and preferences of actors. Third, institutions determine the intensity and scale of policy problems and thus co-determine the political agenda (Visser and Hemereijck 1998:72-73). The analysis of actors and their joint cooperation and competition as actor coalitions is therefore included in the theoretical framework here.

A shift towards a more dynamic institutional analysis is the issue of recent academic debates. A shift towards a dynamic process- and actor-oriented perspective has two advantages (Gualini 2004:61). First, sociological new institutionalism has opened up the traditional static conception of institutions with its tendency to determinism in explanation. Second, emphasis on the

processual and iterative dimension of institutions confers a crucial meaning to the institutions and action nexus. Institutions are therefore not seen here as static, but are changing over time and so does the structure of interrelated institutions, the institutional arrangement.

### 5.3 Scheme for institutional analysis

Exploring the theoretical notions on institutional analysis contributes to building a scheme for institutional analysis of the case studies. The essential notions incorporated in the scheme are combined elements of the three new schools of institutionalism as suggested by Hall and Taylor (1996). This in particular includes the path-dependent nature of institutions in historical institutionalism; the drive to strive for more efficient institutions in rational choice theory, with free riders and rent-seeking behaviour; and culture specific practises from sociological institutionalism. Furthermore, a more dynamic and actor-oriented approach is applied in institutional analysis, in order to acknowledge the importance of actor behaviour within institutional frameworks and the changing nature of institutions. This leads to the scheme of institutional analysis based on six stages in the development process in Figure 5.1, wherein the arrows are indicating directions and are not excluding other relations between the boxes.

Ad 1. Institutions can be seen as efficient (fitting and appropriate) or inefficient institutions (not-fitting, North 1990, see Figure 5.1 stage 1). For North, institutional development is a process of more efficient institutions replacing inefficient rules of the game. The more efficient institutions create opportunities for spatial economic development, or what Gualini (2004) calls institutional opportunity structure. Some rules of the game strengthen the regional economic development; some rules of the game are hampering this process. To make things more complex, these institutions are interrelated and influence one another, and therefore have to be considered within the entire institutional arrangement. Institutional complementarities in the arrangement occur if one institution increases the revenue or efficiency of another institution (Hall and Soskice 2001).

Ad 2. North (1990) has become more sceptical about the development towards more efficient institutions: despite a broadly felt urge for institutional change, some inefficient institutions remain. There are four main reasons for this inertia of institutions (stage 2 in Figure 5.1). First,

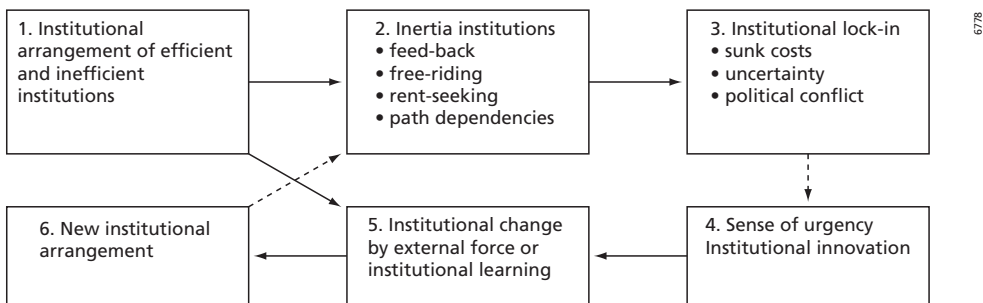


Figure 5.1 Stages of the institutional development process

the current institutions or institutional arrangement are dominant and ignorant of critique causing a lack of feed-back. Second, even though in sum institutions are inefficient, some actors benefit from the current arrangement and show characteristics of free-riding. In the case of rent-seeking behaviour by dominant actors, resistance from specific interests can arise. Fourth, inertia of institutions is caused by path-dependant behaviour: where one is going is co-determined by where one comes from and it is risky to take another path. Although path dependency plays a certain role in the institutional arrangements of the region, and history matters, Schmitz and Musyck (1994) argue that it is equally important not to become mentally imprisoned by history.

Ad 3. When institutions are unable to change and become more efficient institutional arrangements, and inefficient rules start frustrating the game seriously, a performance crisis can occur due to institutional lock-in (Visser and Hemereijck 1998, stage 3 in Figure 5.1). There are three main reasons for getting stuck in this stage. First, an institutional innovation has sunk costs; it is not exactly clear from the beginning what the new institutional arrangement might bring in costs or benefits in time and money. Second, there is uncertainty if the proposed institutional change will really work as expected. Finally, political conflict is necessary to have institutional change accepted, and a majority can be hard to achieve.

Ad 4. Sunk costs, uncertainty and avoiding political conflict can lead again to path-dependent behaviour. The lock-in can be severe and can lead to a performance crisis of the entire institutional system. When a performance crisis is not leading to a widely accepted sense of urgency (stage 4 in Figure 5.1), institutional change will not take place. A dashed line reflects this in Figure 5.1.

Ad 5/6. Institutional change in stage 5, either by occasion of a political lock-in situation breakthrough or direct implementation, can lead towards more efficient institutional arrangements in the final stage. This process of institutional change can be driven by external forces (for instance changing economic realities) or by internal forces: an institutional learning process (Gualini 2004). The former can be more effective but is not a matter of collective action; the latter is an effect of what Hall (1993) calls a 'powering' and 'puzzling' process of institutional innovation.

A well-known problem in the fifth stage is that merely new institutions are created (for instance round tables, customer-supplier conferences, and regional dialogues), without touching the existing institutions that badly need reforms (Sabel 1996), so that stage 5 leads back to the beginning stage. However, institutions can be changed and become more efficient and appropriate by a puzzling process for new institutional arrangements and political empowering of these new arrangements. In turn, this process of institutional learning can contribute to economic performance. This complex institutional learning process, vital for answering research question 3, therefore needs further exploration in the next section.

## 5.4 Institutional learning and economic performance

The fifth stage of the institutional development process (Figure 5.1), where institutional learning takes place, is essential and problematic in order to come to new institutional arrangements. It

is relevant here to see which kinds of institutional learning in international comparative case studies are meaningful and which ones are less successful. Therefore, first the process of learning is discussed. Then, types of institutional learning are explored. Finally, implications for the regional economic performance are discussed in 5.5.

#### *Learning process*

Whereas institutional *change* and development is encircled by coincidences, institutional *learning* contributes to the 'intelligence' of planning institutions (cf. Gualini 2001). Now that we have come to a better understanding of 'institutions', it is relevant to discuss the meaning of 'learning'. In general, a distinction is made between cognitive learning, social learning and institutional learning (Van der Knaap 2004). Cognitive learning contributes to understanding a particular situation or problem. This type of learning is carried out here by describing and analysing the case study in depth, as found in the first part of the book. It includes the ability to work interdisciplinary and link analytical skills.

Social learning is learning that improves the understanding of actions of other actors, mainly focussing on interactive learning processes in combination with cognitive learning. One of the dilemmas put forward by Hassink and Lagendijk (2001) is the focus on the object (what learning should lead to) and as opposed to the focus on the subject of change (the attitudes and roles of actors and the position of the researcher). Social learning in each case study is done by describing the strategic actors, their interests and their instruments in the case study and comparing this to the behaviour of strategic actors in other case studies. A third kind of learning is institutional learning where the formation and embedding of routines, attitudes and organisational forms underpinning learning is stressed. The capacity to learn about the institutional frameworks and to adapt and change these frameworks is important for the development of the regional international competitiveness.

These types of learning overlap with Argyris and Schön's notion of loop learning and deuterio learning. Argyris and Schön (1978) distinguished single loop learning (creative solutions in the given framework), double loop learning (solutions by changing the given framework) and deuterio learning. Deuterio learning involves focused on organising a constant learning process of the actors involved. This comes closest to our understanding of institutional learning here.

#### *Internal and external institutional learning*

Institutional learning is differentiated here in internal institutional learning and external institutional learning. This overlaps with Hassink and Lagendijk's (2001) application in geography of intraregional learning and interregional learning.

Internal or intra-regional institutional learning is the way actors and actor coalitions are able to learn from their own institutional problems on the regional and local level, and the ability to change institutional lock-ins, rent seeking behaviour and path dependencies. On the one hand, the internal learning process is problematic since strategic actors have to evaluate and change their own situation; on the other hand these actors know the typical characteristics of the city-region.

External institutional learning or interregional learning is of increasing importance within the globalizing economy and regional convergences. In external institutional learning one has to consider the socio-cultural contexts of institutions in international comparison, since harder instrumental institutions are functioning in tight relation to soft institutions such as



values, norms and convictions in planning culture, according to Hassink and Lagendijk (2001) the 'dilemma of regional institutional specificity'. The more conservative approach of external institutional learning offers the region a mirror to analyse its own problems in a different perspective by looking at the problematic institutions of another comparable region.

#### *Institutional transplantation*

An ambitious and far more sensitive approach of external institutional learning is institutional transplantation. The aim of institutional transplantation is to increase the speed of the development process and decrease the costs for implementation by adopting successful foreign ideas (De Jong *et.al.* 2002). Reid (1996) is worried about these copy/paste techniques and argues that 'successful' regional innovation systems cannot be replicated into other regional settings since these systems are based on intangible factors that cannot be repeated.

De Jong, Lanelis and Mamadouh (2002) test Reid's argument by analysing fourteen different cases of institutional transplantation on their effect. Most institutional transplantations were not very successful and the question is raised under which conditions transplantation can be effective.

In surgery, transplantations fail due to the body refuses new organs or because of a lack of blood. De Jong *et.al.* (*ibid.*) argue that although institutions are more kneadable than the medical metaphor suggests and the speed of transplantation is increased by globalisation, the effect of the institutional arrangement is sometimes not even proven yet in the donor country itself.

Two contrasting perspectives on institutional transplantation can be identified: an actor-oriented and a culture oriented perspective (*ibid.*). The actor-oriented approach focuses on the institutional design and takes into consideration the flexibility in implementation of local actors; adapting turns out to be more effective than copy/paste. This approach of institutional bricolage sets three conditions for institutional transfers: (1) Leading actor groups should support the new model explicitly; (2) these elites have to explore the legal context and the functioning of actors in the donor country and (3) a replica built by the leading actors has to fit in the local setting. Moreover, a looser interpretation of the model in a new context is more successful than a stricter institutional design.

The second perspective of goodness of fit focuses on the difference in cultures between countries. Here, evolution of institutions is more important than a new institutional design. Differences in culture are found between groups of family-states (e.g. Anglo-Saxon, German, Scandinavian; Newman and Thornley 1996) and national policy styles (Van Waarden 1999, see chapter 7). De Jong *et.al.* (2002) come to the remarkable conclusion that cross-family transplantation is more successful than like-to-like transplantation, since comparable backgrounds tend to lead to an underestimation of the conditions for institutional transplantation. Different backgrounds lead to more attention being paid to these differences. Multilateral lessons of suitable solutions have become more important than institutional transplantation. These multilateral lessons can be learned through benchmark studies, and come close to Sabel's idea of regional experiments that can contribute to the lock-in of regional institutions in Europe in a similar way that institutions can learn from the Japanese learning-by-monitoring approach (Sabel 1996). Furthermore, systemic comparisons of city-regions' architecture of economic policy and in particular stressing learning effects when there is a time lag involved are also becoming more rewarding (*ibid.*).

### *Institutions and economic performance*

The problems in institutional learning in general and in institutional transplantation in particular show the limits to changing institutional arrangements. Not only for institutional but also for economic reasons, there is a need for more variety in institutional arrangements (Hall and Soskice 2001). Recent institutional case study analyses emphasize that in a context of a multi-level and multi-actor game, not one single direction (in particular the current dominant Anglo-Saxon model) but a variety of institutional arrangements can lead to economic success (or failure) in their different cultural and national settings.<sup>2</sup>

The differences in institutional structure favour one specific kind of sector development over another (Hall and Soskice 2001). In liberal market economies, radical economic changes and innovations are favoured and more effective, resulting in the successful development of the IT and biotechnology sectors. In the coordinated market economy case studies changes are slower and less radical and new ways of coordination are more effective for improving economic performance than a retreat of the state. Despite the slower reaction, the coordinated market economies have a track record of successfully adjusting to the new economic realities in a later stage and for a longer time (*ibid.*). This can be found in Germany's success in the machinery and pharmacy sectors. The bottom-line for the coordinated market economies is that the institutional setting favours cooperation between industry sectors and governments, and offers a regional embeddedness for specific sectors.

With the conclusion that every city-region has its own institutional competitiveness that contributes to economic competitiveness, Hall and Soskice (2001) answer the question left open by Storper (1997) not *how* but *why* in particular regions like Baden-Württemberg and Silicon Valley were economically successful in the 1990s. Baden-Württemberg guarantees a stable and high-quality production environment for motors, where the more wild and open entrepreneurial environment of San Francisco favours new innovations in IT. Every region has its own comparative institutional advantages, or what Hassink and Lagendijk (2001) call regional institutional specificity. Therefore, they conclude that different approaches are suitable for different capitalistic developed countries, and that benchmarking best practises amongst the developed countries are not sufficient to base policies on (cf. chapter 2.3). Aoki (1997) is one major proponent of this opinion, by arguing that the current Japanese institutional problems can only be addressed by a specific Japanese model; following the Anglo-Saxon model would in the end be an ineffective new institutional arrangement for Japan.

## **5.5 Actor-oriented institutional analysis in the case studies**

With the provided theoretical framework in mind, we can construct a model for case study institutional analysis in the following chapters. Therefore it is essential to cross the bridge from institutionalism in sociology to economic geography and urban planning, and to develop a methodology. The methodology for further case study research is, as argued before, (1) based on new institutional economics, (2) includes actor and actor coalition analysis, and (3) focuses on institutional change and institutional learning.

First, in order to apply new institutional economics to the urban planning and real estate market, Healey and Barrett initiated a theoretical model in 1990. Developments on the land- and real

estate market are essential to understand the economic and spatial dynamics, but have been ignored in economic geography in the past (Healey and Barrett 1990). One of the main reasons for this is the difficult relationship between the empirical land- and real estate market trends and urban theory. The role of the disciplining market mechanism caused by supply and demand tended to be overestimated and in contrast the role of market rules for the actors involved was underestimated. New institutional economics acknowledges the role rules of the game play in market processes and final market outcomes.

Healey and Barrett emphasize the importance of understanding actors' behaviour on the real estate and land market by framing the driving forces behind these market processes: regional economic dynamics of the economic sectors; land and real estate demand; strategies of land owners, developers and asset managers; dynamics in the asset management market; and local, national and international competition in real estate investments. Van der Krabben and Lambooy (1993) add two major elements to this approach: location specific characteristics and the institutional contexts of the market players. This model is applied in the institutional analysis, in order to integrate empirical research of the land and property market, and to elaborate on the general notions on competitiveness of the city-regions addressed above. Regional economic dynamics, land and real estate demand, and location specific characteristics were already addressed in the first part of the book. Institutions of the land- and property market are, analysed in chapter 8.

Second, the importance of actors and actor coalitions is stressed. Therefore, chapter 6 will introduce all strategic actors and actor coalitions in the airport and airport area first. In this research, actors are divided in public and private actors on multiple levels, including local, regional and national governments, airport operators, influential policy advisors, landowners, asset managers, investors/developers and end-users. These strategic actors have a role to play in the urban development process because of their tools and power positions (Burie 1982).

Actors have to cooperate in public and private coalitions in order to be successful. In the second chapter this importance was found for the level of the city-region, but also on the local level it is essential to create effective public-private development coalitions. Actor coalitions are forged in urban development, for example in city politics as a result of power balance between the actors involved (cf. Mollenkopf 1992). On both levels actor coalitions are created to boost the competitiveness of the city-region, forming what Wilks-Heeg, Perry and Harding (2003) call the 'entrepreneurial city.'

The shift from urban management in the 1970s towards urban entrepreneurship in order to economically revive the cities in the 1980s and 1990s has led to debates. The main issue is whether powerful commercial actor coalitions, similar to the driving forces behind U.S. urban politics are becoming dominant in the European cities as well, and whether they are becoming too dominant in spatial-economic development (Le Gales 2000). In the scenario of the growth machine, growth dominates all aspects of local life, including the political system, the agenda for economic development and even cultural organizations like sports and museums (Logan and Molotch 1987). These growth machines become especially problematic when they are uncontested growth machines. With this comes a need for questioning what the aims and tools of the actors involved in urban projects are (Mollenkopf 1983).

Wilks-Heeg (*et.al.* 2003) and Le Gales (2000) however emphasize the differences between the European coordinated market economies and the US experience with growth coalitions. First,

European cities largely receive their income from a combination of central government grants and local tax income. Therefore, the growth coalition model is only of limited use in Europe, since these coalitions are less dominant and public actors often provide land. Furthermore, the public sector tends to play a leading role in European urban development projects. And fourth, in large urban projects such as airports, the national governments often play a major role. For these reasons, worries for dominant development coalitions that result in growth machines are not directly relevant in Europe, but might give insight in the infrastructure-related development in East-Asia.<sup>3</sup>

Third, in order to create coalitions for the development of an airport as a cityport, power positions and instruments (price, trust and imposed rules) are required. These instruments and power positions are used in the process of creating development coalitions amongst the actors involved. This cyclical process runs from identity, information, and relations, to tools and problem solving (Burie 1982). The main instruments that involved governments have at their disposal are legislation, taxes and subsidies, coordination policies, and strategic public investments (*ibid.*). The main instruments of advisory boards (either related to a specific interest or not) are knowledge and consultation. Landowners possess land that can be made ready for development. Long-term money for real estate and land development costs are the main tool of asset managers. Development capacity and short-term investment is the main tool of developers-investors. End-users have the user rights and an interest in the continuous quality of the location.

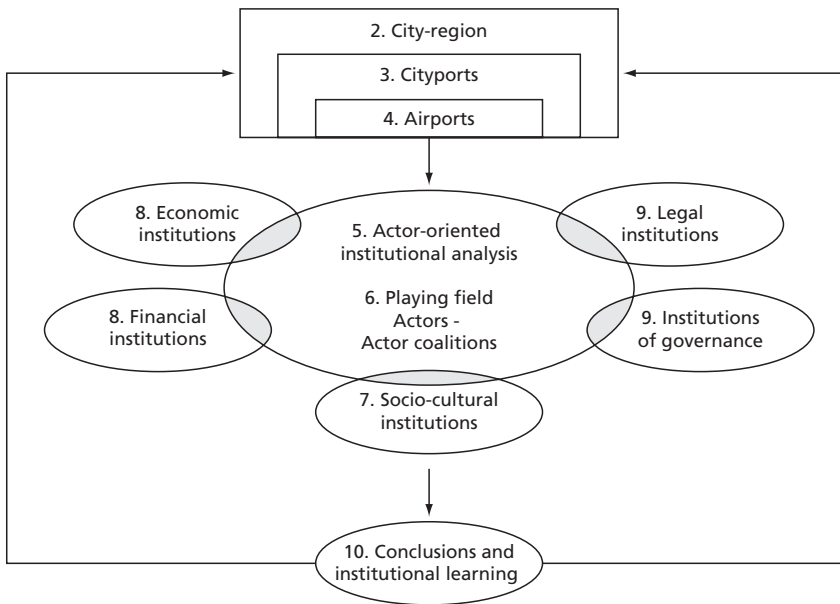
In order to categorise not only these instruments, but also to include values and norms and planning practises as soft or informal institutions into a model of institutional development, the following groups of institutions are distinguished. Here we distinguish institutional groups: socio-cultural, financial, economic, governance, and legal institutions in the spatial-economic development process. These groups of institutions are changing and learning, a dynamic process that is reflected in Figure 5.2.

Socio-cultural institutions are distinguished as important institutions in explaining the local embeddedness of rules, crucial for international comparisons. National habits are closely related to state regimes. These national and regional policy styles with historical roots for institutions are discussed in chapter 7.

Financial institutions include the governmental financial incentive structure to market actors, either in the form of inducements to private investors (subsidies, taxes) or through direct public investments, like public works and co-financing in area development. Financial institutions can therefore be seen as the engine for economic institutions in the area development process.

Economic institutions are the conditions under which market actors are interested in making spatial investments: their risk and returns, and their involvement in the planning process. This is analysed through the stages of the development process: land market, real estate development, construction and management. In the cityport development process, financial and economic institutions partly overlap and they are therefore discussed jointly in chapter 8.

Institutions of governance are the horizontal and vertical organisations of governments, increasingly also in cooperation with (semi-) private actors that codetermine policies. More complex relationships, with multi-actor and multi-level governance, are currently replacing the government-centred structures of the state (Salet *et.al.* 2002). The horizontal organisation



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Figure 5.2 Actors, actor coalitions and institutions in the frame of analysis

is focussed on horizontal cross-sector coordination; vertical organisation comprises the coordination between national, regional and local government.

The rules of the game as set by government and more recently by governance, and enforced by law. Therefore, legal institutions are the (formalized) continuum of government institutions. Legal institutions are defined as the either public or private legal rules of the game for actors involved in area development ranging from land-use plans to property rights and tendering. Since legal institutions are closely related to institutions of governance, these two groups of institutions are jointly discussed in chapter 9.

## 5.6 Conclusion

The spatial and economic position of the case studies has been analysed but this did not provide full understanding of the mixed results of airports developing as cityports in Schiphol in the Randstad, Frankfurt Airport in Rhein-Main and Narita and Haneda in the Tokyo Metropolitan Area. Therefore, this chapter presented a methodology for examining the position of airports as cityport in the city-region, based on institutional theory. The methodology is based on three conclusions of institutional theory.

First, the perspective of new institutional economics is used, with its focus beyond price setting and the inclusion of the importance of trust and imposed rules between supply and demand in spatial and economic development. It puts the enterprises back in the centre of attention without ignoring the importance of rules of the game for the market actors, in this case the airport area development process. Second, actors and actor-coalitions are included in

institutional analysis, acknowledging the possibilities of action within institutional contexts. Third, institutions are seen as dynamic and institutional change and institutional learning within the institutional development process are focussed on.

Regional economic development and institutional change turn out to be more closely interrelated than is often assumed. Institutional competitiveness is closely related to economic competitiveness. Arrangements of fixed and changing institutions are complementary and the fit to local specific situations co-determines economic performance in the end. Changing towards more efficient and more effective institutions however is a complex process due path dependencies, rent-seeking behaviour, and free riding of the actors involved. It is not a necessity that institutions become more efficient; they can also stay locked-in, even in a case of performance crisis or sense of urgency.

If the region is not capable of learning by itself, learning from other regions can be meaningful. Benchmarks are not sufficient to base regional policies on, since the regional institutional embeddedness can differ. This does not mean that comparative studies are useless for regional learning. An in-depth institutional analysis can bear more fruit, in particular if there is a time lag involved, so that institutional learning between regions can take place to avoid similar problems.

Transplantation of institutional systems from one country to another is problematic and has led to disappointing results. In international comparisons, it turns out that institutional transplantation between countries with similar institutional systems is not more successful than transplantation between countries with different institutional systems. Therefore, an international comparative study of case studies in the Netherlands, Germany and Japan should not be excluded based on the socio-cultural differences.

Furthermore, the current dominant Anglo-Saxon model is not necessarily leading in learning processes, since coordinated market economies have their own institutional comparative advantages, and need to reform their institutions rather than abolish (public) institutions. The coordinated market economies in the case studies should reinvent their own models of market coordination that favour specific sector development and improves regional economic performance. This notion can also be applied to the regional level for institutional analysis of the airports as cityports in the city-region.

## Notes

- 1 The major advantages and disadvantages in the three schools of new institutionalism are the combination of calculus and culture in historical institutionalism, but the cost of eclecticism in terms of impreciseness; the more precise conception of institutions and behaviour in rational choice, but the simplistic image of human motivation; the combination of strategy and behaviour in sociological institutionalism but the blurring of institutions and culture (Hall and Taylor 1996).
- 2 See Salet *et.al.* (2002); Simmonds and Hack (2000) and in particular Hall and Soskice (2001). In their recent work, Hall and Soskice (2001) found that OECD-countries show a remarkably similar result in economic performance in terms of unemployment, inflation and growth of domestic product in the last thirty years for both liberal market economies such as the US, the UK and Australia and for coordinated market economies as Germany, the Netherlands and Japan. Economic and institutional competitiveness are on comparable levels

despite or thanks to the variety in institutional arrangements, albeit with striking differences in economic sector development.

- 3 In their global comparison of urban projects, Newman and Thornley conclude that city politics matters and that governance can shape global forces, but that planning also matters (2005). In this governance process they foresee a larger role for elected and strong mayors as mediators for mega projects, on the one hand putting the city-region on the international agenda and on the other listening to the needs of the citizens with local problems.





## 6 Actors and actor coalitions

### 6.1 Introduction

In the theoretical framework provided in the previous chapter, the argument is that traditional institutional theory underestimates the importance of actors in the institutional development process. Therefore, this chapter introduces the actors and actor coalitions involved first, which is a direct answer to research question 2a, which stresses the importance of strategic actors in the formation of spatial development coalitions in airport areas as cityports in the city-regions. This actor analysis is not exhaustive; there is a focus on the most relevant actors and their interrelations, as well as main differences between the cases.

These actors are presented by the main actor groups in the urban development process: public actors as national, regional and local governments (section 6.2); airport authorities and end-users (6.3); actors with commercial interests as project developers and asset managers (6.4) and advisory boards with and without direct interest at stake, and other actors (6.5). The analysis of actors in the case studies is introduced based on the approach of Burie (1982). This means actors are presented in the framework of the positions in terms of players (the interviewees that represent the actors), their main formal and informal tools (instruments), and mutual relations. Analysis is based on both document analysis and case study interviews with the actors involved.

Section 6.6 is a comparative approach to introduce actor coalitions that are formed at the airport and in the wider airport area, based on literature and on-site interviews. These airport coalitions are a quintessential background for understanding the actor coalitions on the regional level since they determine whether the airport and/or aviation is expanded or not, and under which conditions. These actors and actor coalitions are an essential stepping-stone for further understanding of the actors' behaviour within the rules of the game, which set the playing field for the development of airports as cityports in the city-region. The analysis of actors and the variety of actor coalitions in airports and airport areas lead to conclusions in 6.7.

### 6.2 National, regional and local governments

#### *Political institutions*

The Netherlands is an unitary state with a constitutional monarchy. It has a three-tier governmental system of national government, twelve provincial governments, and 458 municipalities in 2006. On all levels of government, majority coalition governments are created based on proportional representation. Mayors and provincial governors are appointed as local and regional executives by the national government, a situation that is currently under revision. The Netherlands is a decentralised unitary state, where lower tiers of government are guaranteed constitutional autonomy and higher-tier bodies have powers to prevent lower-tier bodies from intervening in their policies (Mastop 2001). After elections, majority coalitions of Social

Democrats (PvdA), Christian-Democrats (CDA), Liberals (VVD and D66) and/or Greens (GL) are formed to govern the three different levels.<sup>1</sup>

The Federal Republic of Germany is a federation of 16 states and over 16,000 municipalities in 322 counties plus 115 independent cities, which have constitutionally guaranteed powers of self-government within the federation. The German constitution strictly divides responsibilities between federal government and the states (Schmidt-Eichstadt 2001). Municipalities are either independent cities or are part of a regional county. National parliament chambers consist of directly elected representatives and representatives of the states. The power of the states creates a situation in which constitutional legislation is difficult to change, since a two-third-majority support from the states is required. Governmental leaders at all levels are from the dominant political parties, the Christian-Democrats (CDU-CSU) or the Social-Democrats (SPD). The dominant parties usually form coalitions with the smaller parties, either FDP Liberals or the Greens.

The Japanese empire consists of a national government, a two-tier local government structure of 47 prefectures (the regional level) and 1800 municipalities as of March 2006 after drastic mergers (the local level).<sup>2</sup> The country can also be subdivided in eight regions, but these regions do not have formal governmental roles as of yet. Japan is a unitary state, with constitutional rights for the prefectures and more financial independence for cities with over 700,000 inhabitants. Parliaments are formed after direct elections and are based on equal representation. There is no need for government coalitions for the Liberal Democratic Party (LDP), since it has a majority in parliament. LDP has governed Japan for over 40 years with a one-year exception in 1993. In practise however, the LDP is a coalition of divergent factions within itself.

#### *Actors on the national level: the Netherlands*

On the Dutch national level, four ministries (transport, planning, economic affairs, and finance) are involved in the Schiphol area planning in the Randstad. Urban planning is within one ministry, the Ministry of Housing, Spatial Planning and the Environment, but this ministry depends on the 'spending' departments with larger budgets, in particular the ministries in charge of transport and finance. The Netherlands Ministry of Transport, Public Works and Water Management (from here on abbreviated as Transport and Water Management) is responsible for the landside accessibility of the airport region in terms of roads, rail and other infrastructure, and also the conditions and enforcement of aviation in terms of environment and safety by the Aviation Law (Interviews Bussink 2005, Jacobs 2005).

The Ministry of Transport and Water Management is the coordinator of the Schiphol Mainport project. Furthermore the Ministry of Transport's policy is to create a level playing field for aviation and airports in the EU. In 2003, the smallest Cargo and Aviation departments merged into one Directorate-General. The current aim of the Ministry of Transport is to become less project-oriented by having a more integral approach (*ibid.*). In the case of Schiphol, this means more distant relations with the airport operators and closer cooperation with other ministries with supervising roles. The Minister of Transport and Water Management and the Ministry of Finance jointly prepare privatisation plans for Schiphol. Closely related but independent from the Ministry of Transport and Water Management is the Civil Aviation Authority (RLD *Rijksluchtvaartdienst*). It is in charge of airplane approaching routes and safety zones, therefore co-determining the capacity of the airport.

The Ministry of Housing, Spatial Planning and the Environment (*Volksbuisvesting, Ruimtelijke Ordening en Milieu*, referred to as Ministry of VROM) draws the national plans. There is no legal need for national plans, but every decade revision of the national plans is common practise (Alterman 2001). These planning procedures find their legal embeddedness in the Act on Spatial Planning (WRO) of 1965, revised in 1985, and currently under revision. Technical standards for construction are embodied in the building law.

VROM is the second ministry involved in the Schiphol mainport project. It focuses on environmental regulation and the impact of noise pollution on current and new housing areas. In cooperation with the Ministry of Transport and Water Management, strict noise and safety contours are drawn and environmental impact studies are made. Furthermore, VROM is coordinator of the Monitoring, Evaluation and Implementation Schiphol evaluation to be completed in 2006 (Interview Vink 2005).

VROM's national spatial planning memoranda set the national planning agenda (VROM 2004). The legally binding key national planning decisions (PKB) are a major instrument for providing national guidelines in planning. PKB procedures distinguish national projects from common planning procedures. In the case of national projects, VROM can make legally binding land use plans that are normally municipal jurisdiction. The municipalities can be overruled by VROM with a – rarely used – national assignment (*aanwijzingsbesluit*): VROM can have a final say in case of national interest.

The Ministry of Economic Affairs (*Economische Zaken, EZ*) focuses on national economic priorities and therefore is partner in the interdepartmental Mainport Schiphol project. At first EZ intended to contribute only once to the project, but now the involvement has a more permanent character in order to make use of economic opportunities of the mainport in the region (Interview Van Putten 2005). EZ is furthermore involved in competition and anti-trust laws.

The Ministry of Finance (*Financiën*) is indirectly involved in the Schiphol case. The ministry organises financial relations between Schiphol and the Dutch State, particularly in the current governmental plans of privatisation and stock exchange quotation.

#### *Actors on the national level: Japan*

In Japan, spatial planning is closely related to economic planning, where three ministries and two planning agencies play a major role. These are the ministries of Finance (MoF), International Trade and Industry (MITI, in 2004 renamed as Economy, Trade and Industry, METI), and Land, Infrastructure and Transportation (MLIT). In addition two agencies play a crucial role in planning: the National Land Agency (NLA) and the Economic Planning Agency (EPA).

Johnson (1982) argues that in the western economies, government simply sets the rules of the game; in Japan, government nurture industrial development. MITI's successful government bureaucratic capitalism spurred development in the coal sector (1950s), steel and shipbuilding (1960s), semiconductors (1970s) and computers (1980s). By doing so, it strengthened its position in relation to other ministries. MITI therefore has crucial contacts for competing and cooperating with the LDP, Ministry of Finance, Ministry of Post and Telecommunication, Bank of Japan, Economic Planning Agency, and business groups. The end of bureaucratic capitalism and decentralisation, deregulation and privatisation has led to the current less dominant position of MITI, nowadays renamed as METI (Ministry of Economy, Trade and Industry).

The role played by the Ministry of Finance (MoF) is a natural counterpart to MLIT. MoF approves the projects proposed by MLIT and considers it in the context of financial and economic benefits, including large scale infrastructure plans for *shinkansen* and airports. The Ministry of Finance is therefore a very powerful organisation, in particular since it has close elite contacts with LDP politicians, influential University of Tokyo graduates and researchers and as such it has a high status in society (Van Wolferen 2004).

The Ministry of Land, Infrastructure and Transport (MLIT) is the result of a merger of the former ministries of Construction and Transport in 2001. A focus on public works to generate economic development is at the heart of the political economic system, to be discussed in chapter 8. MLIT does not only have an approved budget set in parliament, there are also special earmarked budgets appointed by bureaucrats, financed by postal savings. The share of GDP for public works is almost double compared to the US and EU. Failures of a series of public works and budget deficits on the national accounts forced MLIT to cut spending (McCormack 1996).

In airport planning, the Aviation Bureau of MLIT is the main actor. The focus of the ministry is mainly the airside, however recently a shift towards the landside of the airport can be seen (Interview Asawa 2004). In the case of first class airports of Kansai, Itami, Narita, Centrair/Nagoya, and in the case of Haneda, MLIT is directly involved in managing the planning process. The role of MLIT in local and regional airports is less dominant and the contribution in costs for these airports is lower.

The Cabinet Office of Prime Minister Koizumi focuses on the reduction of the state budget and the privatisation of postal savings. It has eleven bureaucratic agencies, including the Economic Planning Agency (EPA) and the National Land Agency (NLA).<sup>3</sup> EPA and NLA have no separate budgetary powers but are responsible for the national and regional economic and land-use plans. The economic plans are not detailed and are not legally binding. The Economic Council writes the draft of the economic plans. These economic plans are closely related to the National Land-use Plan and the National Development Plan. The role of the NLA here is to coordinate land-use policies of other ministries and to prevent land price speculation through the provisions of the National Planning Act (Tanimura and Edgington 2001).

#### *Actors on the national level: Germany*

Planning on the national level in the German federal state is different from centralised Japan and the Netherlands decentral unitary state. In Germany, only the federal ministry for Transport, Construction and Housing (*Bundesministerium für Verkehr, Bau- und Wohnungswesen*, BMVBW) is indirectly involved in spatial planning of airport areas in the city-region.

According to the federal spatial planning act (*Bundesraumordnungsgesetz*), the main function of the ministry is to offer the legal framework and to set the guidelines for plans and laws made on the state level. The state minister's conference discusses the federal law and strategic planning issues. There are federal spatial planning reports, but the federal powers and instruments are very limited (Schmidt-Eichstadt 2001). Regional economics, transportation and housing planning are mainly the responsibility of the states and there is no jurisdiction for cross-sector planning on this regional level. However, the federal state has the possibility to cooperate with the states (cooperative federalism, Faludi 1997). Local and regional plans have to fit in the broader frameworks set from the national and regional level. On the other hand, bottom-up feedback to

the top is of equal importance (the so-called *Gegenstromprinzip*). The *Baugesetzbuch* law aims to stimulate the coherence in urban design by setting building standards for infrastructure and real estate.

Official procedures are fixed in national sector legislation, *Fachplanung*. These sector plans of the ministry departments involved are in parallel to spatial planning, and therefore have more direct effects on planning, which includes airport planning. In this case, it is relevant to mention that there is no national airport planning strategy and jurisdiction within Germany – the main airports are only acknowledged. Sector planning sets procedures and technical guidelines for the planning of airport runway expansion, long distance trains and stations, and national highways.

#### *Actors on the regional level: Randstad*

In the Randstad-Schiphol area, four provinces are involved: Noord-Holland, Zuid-Holland and Utrecht, and to a minor extent Flevoland. The province of Noord-Holland is the coordinator between the local and national levels, and private and public interests. Noord-Holland supervises local land-use plans and inspects local land-use practises for VROM. The provincial planning agency and provincial planning deputy also have mandate and active development roles. These roles are mainly on a cooperative basis and enforced by the legally binding *streekplan*, a masterplan for sub-regions within the province. Because of the emphasis on the coordination role, and despite the legally binding status of the regional land-use plan, the province is nowadays considered the weakest level of government in the Netherlands (cf. Mastop 2001), in particular in the areas with dominant large cities such as the Randstad.

In the Schiphol area regional plan, the province of Noord-Holland sets strict zoning regulation, including tests of airport-relatedness for office and industrial locations. The closer the parcel of land is to the airport, the more airport-related the businesses should be. For developing the airport-related industrial locations, the province is joined by the municipalities of Amsterdam and Haarlemmermeer, both shareholders of the Schiphol Area Development Company (SADC). Furthermore, the province of Noord-Holland chairs the small and larger regional coordination organisations *Bestuurlijke Regiegroep Schiphol* (BRS), *Bestuursforum Schiphol* (BFS), and hosts and participates in the citizens' consultation platform *Commissie Regionaal Overleg luchthaven Schiphol* (CROS). The provinces Zuid-Holland and Utrecht only take part in BRS and CROS.

#### *Actors on the regional level: Tokyo Metropolitan Area*

In Japan, the prefectures (*ken*, *fu* or *to*) and their chairs, and the popularly elected governors, are important governmental layers. Even detailed issues as enlargement of shops over a hundred square meters have to be approved by the governor (Porter *et.al.* 2000). In terms of regional planning, the prefecture plays a coordinating and supervising role and is involved in major decisions. The indicative prefectural land-use plan is established by the prefecture, but regional development plans are more often drawn by the region, i.e. by joint and cooperating prefectures; in the case of Tokyo the Capital Region that consists of Ibaraki, Tochigi, Gunma, Chiba, Saitama, Kanagawa and Yamanashi-*ken*, and Tokyo-*to* (Tanimura and Edgington 2001). Since Tokyo is a prefecture by itself that contains a large urban area, it is discussed as a local actor below. The important planning tool of land expropriation is controlled on this prefecture level (Kotaka *et.al.* 2001). Every prefecture has a commission that decides on land expropriation in cases of important national interest, for instance international airports.<sup>4</sup>

The involvement of the prefecture in airport construction is related to the type of airport; MLIT is in charge of Class-1 (international) airports, prefectures are responsible for class 2 airports, and local governments manage class 3 airports. In the airport region, prefectures are the main actor. In the case of Narita, Chiba-*ken* is in charge of zoning the airport related industries near the airport in business parks. At Haneda, Tokyo prefecture is the main landowner of lands near the airport and decides upon redevelopment of the sites.

*Actors on the regional level: Frankfurt Rhein-Main*

The system of a federal state makes regional governments in Germany a stronger level of government than in unitary state systems in Japan and the Netherlands. In Frankfurt Rhein-Main, the state is not the only actor involved in regional planning; planning tasks are shared with the lower level of administrative districts and the regional planning associations.

In terms of spatial planning, the states have the main responsibility. Other responsibilities include building regulations, protection of monuments, nature and countryside protection and higher education (Schmidt-Eichstadt 2001). The Hessen state ministry involved in spatial and economic planning is the *Ministerium für Wirtschaft, Verkehr und Landesentwicklung*. This Hessen Ministry of Economy, Transport and State Development is responsible for supervision of the above local interests in planning and to bring these interests in harmony with the planning concepts of the federation, outlined in the spatial development plans of *Landesentwicklungsprogramm* and *Landesentwicklungsplan*. These plans are for coordination and have no legally binding status and these planning procedures and planning program form the second group of planning instruments. The third instrument in planning is the land registry, and the fourth softer and non-binding instrument is the regional development concept, based on planning concepts or *Leitbilder* (Faludi 1997).

Spatial planning and economic development on the regional level is not limited to the state ministry alone, but shared with administrative districts and a regional planning association. The state of Hessen is subdivided into three public administration districts with executive powers (*Regierungsbezirke*); northern, central and southern Hessen with governors in respectively Kassel, Fulda and Darmstadt.<sup>5</sup> The main function of the state governors is a limited role in coordination of the policy guidelines and intentions of the national, regional and local governments.

The regional planning association is *Planungsverband Ballungsraum Frankfurt Rhein-Main* (PVFRM) that draws the regional spatial plan. PVFRM is the 2001 successor to the 1975 original *Umlandverband Frankfurt* (UVF), that aimed to create cooperative and coordinated development in the Frankfurt region by transferring planning powers, water, waste, and leisure management to the regional level. This UVF was considered a 'toothless tiger' due to lack of enforcement capabilities, and limited regional coverage (Heinz 2000, Freund 2002a).<sup>6</sup>

The current regional planning association has even less powers, with a larger planning area consisting of more municipalities joining the PVFRM. Unique in Germany is the requirement in Frankfurt Rhein-Main for the Planungsverband to set up a *Regionaler Flächennutzungsplan* that combines regional planning and local structure plans within one plan. In practice this means negotiation between municipalities on the outlining of the spatial development in Frankfurt Rhein-Main. The second main task of the Planungsverband is the coordination of the plan for nature protection.

In airport area planning, the state of Hessen and administrative district Darmstadt play a major role. Since construction of new runways is not foreseen in the *Regionalplan Südhessen 2000*, spatial consequences of changing the plans should be considered in a compulsory *Raumordnungsverfahren*. Then, the regional plan can be changed in a procedure that is called *Planfeststellungsverfahren*. Finally, the airport can start drawing internal expansion plans and, in cooperation with the Hessen Ministry of Economy, Transport and State Development, the airport development plans. The administrative district approves the procedures and final plan. The *Planungsverband* is only involved in discussion forums on the airport expansion without planning instruments.

#### *Actors on the local level: Randstad*

The local level of government in the Netherlands is one that creates the legally binding land-use plan *bestemmingsplan* that is approved by the provinces. Furthermore, the local level draws more global structure plans on the sub-regional level, the *structuurplan*. The land-use plan is the successor of local extension plans from the 1901 Housing Act, and should be revised every decade (Mastop 2001). Social and economic dynamics however favour more flexible and less detailed land-use plans today (VROM-Raad 2001). Since the scale of social-economic activities of citizens is rising (see chapter 3), municipalities are merged and spatial planning becomes increasingly inter-municipal. Therefore, intermunicipal and indicative structure plans become more important planning tools on the local level. Although in theory, land-use plans cover most areas, there is no primacy of the plan due to exceptions and loopholes in planning procedures, as well as due to social and economic dynamics (Mastop 2001). The planning system is currently under revision and changes towards a system with more project-led development planning procedures today.<sup>7</sup>

Under Dutch law, larger cities and smaller municipalities have equal legal positions. On the local level, more than thirty municipalities are directly affected by Schiphol airport, in particular noise pollution. Here we limit the framing of actors to the major towns in the airport vicinity Haarlemmermeer, Amsterdam and to a lesser extent the suburban towns Aalsmeer and Amstelveen.

The airport is located in the east of Haarlemmermeer (130.000 inhabitants in 2005). This young municipality that includes the new towns Hoofddorp and Nieuw-Vennep is responsible for the land use plan of the airport. One of the aims of Haarlemmermeer is to realise planning tasks by an active development strategy of land and real estate, embodied in the policy document that reflects the spatial and economic vision Schiphol (REVS). Haarlemmermeer is not only active in area development of Schiphol by participating as a shareholder in Schiphol Area Development Company, it also sells land to project developers for office and industrial site development. As a result, the rapid economic and demographic growth forces Haarlemmermeer to offer new sites for housing in Nieuw-Vennep and Hoofddorp-West.

Amsterdam (735.000 citizens) was until the large airport expansion in the 1960s the main shareholder of Schiphol airport (Dierkx and Bouwens 1997). More important than the shareholder position is the position as largest city in the Netherlands, hence political influence, and the number of jobs that are created for Amsterdam's citizens.<sup>8</sup> The city of Amsterdam is an actively involved shareholder in SADC and the joint project development in airport region. The

department of Economic Affairs of Amsterdam is the coordinator of the Schiphol dossier in cooperation with the local Urban Planning department.<sup>9</sup>

The municipalities Amstelveen and Aalsmeer, east of Schiphol, are under influence of the airport in terms of noise contours and economic impact. Amstelveen (79.000 inhabitants) accommodates the KLM headquarters, and other airport-related American and Japanese corporations, including many of its employees. Large parts of Aalsmeer experience strong noise, however few of the 23.000 inhabitants work is related to the airport.<sup>10</sup> Active involvement of Aalsmeer and Amstelveen is limited.

#### *Actors on the local level: Frankfurt Rhein-Main*

The local level of government in Germany functions as communities (*Gemeinden*) that are part of the *Kreise* (counties), or as independent cities. In Frankfurt Rhein-Main these independent cities are Aschaffenburg (Bayern), Mainz and Worms (Rheinland-Pfalz), Darmstadt, Frankfurt, Offenbach, and Wiesbaden (Hessen).

The federal construction law determines that the *Bauleitplanung* (including *Bebauungsplan*) as land-use plans and *Flachennutzungsplan* (regional structure plan) are the main instruments of planning at the local level. The regional structure plan is not directly legally binding, but the land-use plan is. Since 1975, the common regional plan in Rhein-Main has been a planning tool on the regional level. Although the land-use plan has to fit in the context of the *Flachennutzungsplan* and *Regionalplan*, the bottom-up planning culture often leads to the adjustment of the plans at higher levels. Building permits act as a second planning tool for the communities. Although the tasks and responsibilities of the counties are decreasing, the *Landrat* (county chair) retains a say in planning issues. In the case of airport extension procedures, counties and communities have only an indirect say. Their interests should be considered a part of the planning process. In airport planning, the local government plays a strategic role since *Baugenehmigung* permission is required for all new constructions at the airport.

Since the airport is within the territory of the independent city, Frankfurt's local government is the main actor in charge of airport planning and expansion. The current airport territory includes the AIRRAIL Center, the cargo and A380 docks in the southeast and the redevelopment of Gateway Gardens. However, the new planned runway is partly in the bordering town of Kelsterbach, which benefits and suffers directly from the airport. Kelsterbach (14.000 inhabitants) is part of the county Gross-Gerau (252.000 inhabitants). A runway extension in Kelsterbach is in conflict with the current 44 hectares Ticona plastics manufacturing site. In 2002, Ticona Plastics increased production for its 1000 employees. The manufacturer for the time being refuses to move to other locations since it had earlier warned that airport expansion would have consequences. Frankfurt Airport however did not take these warnings very seriously (FR 26.01.2006).

#### *Actors on the local level: Tokyo Metropolitan Area*

Around 80% of all government spending in Japan takes place at the local level, compared to 50% in former West Germany and the U.S (Tanimura and Edgington 2001). In the process of implementing plans, the Japanese central government plays an overseeing role as fund supplier rather than being involved as instigator (*ibid.*). Although the structure of local government is



highly centralised and controlled by the national government, the municipalities themselves are the main actors involved in planning public works, amongst other things.

In Japan, the City Planning Law and the Building Standard Law coexist and form the basis of Tokyo city planning. The City Planning Law is the main law for regulating land use; the law can be applied for both designating areas for specific land uses and designating the type of land use in that area. Although this law can only be applied in the City Planning Area (CPA), zoning is crucial for understanding land uses in Tokyo. Compared to European countries, land uses are not strictly defined.<sup>11</sup> The city planning area is the highest level of scale in city planning and is drawn up by the governor of the prefecture. Depending on recent developments, the city planning area can be changed. The city planning area is subdivided in areas of urban dynamics (urbanization promotion area) and urban containment (urbanization control area). Finally, the Building Standard Law (BSL) is a complementary law to the City Planning Law. This law sets technical minimal standards for the construction and design of the buildings. Tokyo Metropolitan Government (TMG) has the most important role to play in setting land use standards. The TMG is responsible for land zoning and the volume and size standards of buildings, as well as the strictness these regulations are enforced.<sup>12</sup>

In legal terms, the role of the cities' wards are limited to implementation and examination of planning laws, however recently some changes can be found. The gap between the regional level of the City Planning Law and the level of the construction itself (BSL) became increasingly problematic and was solved in 1980 by the introduction of the District Plan. The wards are the appropriate actor to develop and implement the district plan in cooperation with local citizens. District Plans make it possible to apply an area-oriented approach as one unit. They must fit into the city planning area's current zonings, and can only be made for urbanization promotion areas. Within the district plan, the shape and construction of a building, the change of use of the building, and land readjustment in a shared land pool, are the main instruments that require the ward mayor's approval. Sorensen (1999) considers land readjustment as the most important and most problematic tool in planning, as it does not avoid urban sprawl.<sup>13</sup>

The local communities have limited involvement in airport area planning. A team that is closely linked to the Ministry of Land, Infrastructure and Transportation manages Haneda Airport. The team is directly involved in Haneda's island area planning in Ota ward. Narita International Airport is located in Narita city and borders other communities such as Tomisato, Shibayama-Osaka and Takomachi. Despite the recent merger of the municipalities around Narita into Narita Airport City, the villages have a very small role in airport area planning (Interview Yamada and Kawaguchi 2004). Until recently, the Aviation Department of the MLIT has been the actor in charge of developing the airport territory. Due to jurisdictional sensitivities, local and regional authorities hesitate to be involved in airport area planning.

#### *Government actors in the case studies*

The overview of national, regional and local governments as actors show considerable differences between the case studies. The Netherlands' planning system is unique in the sense that all three governmental tiers have their own land use plans; in theory they perfectly fit together. Therein, national level supervises the regional level, and the regional level supervises the local level. The levels of government in Japan are less ideal-typical, with a national level and formally two-tier local level (regional and local). Planning in Japan is not only about land use, since

economic development takes priority. This makes the 'prohibition planning' of the Netherlands and Germany (e.g. prescribed land use) different, in that Japan has incentives in planning or 'opportunity planning' (e.g. urbanization promotion areas), in addition to planning control instruments.

The German planning system is quintessentially different from the centralised systems, with a decentralised and subsidiary structure. The federal level's planning is carefully limited to technical regulations and general planning guidelines. Different from Japan and the Netherlands, the German state is not involved in regional and local planning. This subsidiarity is reflected in airport area planning. Despite the strategic importance of Frankfurt International Airport for Germany, it is a local and regional planning task. The opposite is true in Japan. With the crucial position of Haneda for Tokyo, Tokyo Metropolitan Government is not involved in planning Asia's largest airport on her own territory. In the Netherlands, all levels of government are involved in planning tasks and consultation rounds.

### 6.3 Airport operators and airport users

Schiphol Group NV is the operator of Schiphol airport, and major owner of Rotterdam, Lelystad and Eindhoven airports in the Netherlands; their main purpose is to operate the airports and to create added value for its shareholders. Schiphol's main instruments are airport management, and the inherent political and economic influence it has at the regional and national level. The board of management, that presents itself as 'mayor and aldermen of the airport city,' lobbies actively for further privatisation and stock exchange listing of the airport. Abroad, Schiphol Group ownership is limited to New York JFK's Terminal 4 and Brisbane's airport in Australia (Schiphol Group 2005). Schiphol owns the land of the airport territory and is 33,2% shareholder of Schiphol Area Development Company (SADC).

KLM is the dominant user of Schiphol airport and has *grandfather rights* for using the airport and KLM's effective airlines strategy is one of the main reasons that Schiphol could become the fourth largest hub in Europe (Burghouwt 2005). The KLM-Transavia group uses over 70% of the total landing rights, and is therefore an important actor in the region, but does not have a dedicated terminal. The merger of KLM with Air France and the dominant position of the Sky Team at the airport is likely to continue its relationship with Schiphol. The main concerns for KLM are to not to pay high landing fees, and to improve baggage handling, in order to stay competitive.

Fraport AG is operator and owner of Frankfurt, Frankfurt-Hahn, Hannover, Saarbrücken, Antalya (Turkey) and Lima (Peru) airports, with similar business aims and strategies as Schiphol Group (Fraport 2005). The business activities in the Philippines and Kazakhstan were financial disappointments that led to withdrawal. Fraport's main instruments are the airport management and the political influence from being Germany's largest *Arbeitsstätte*. Since the airport already has access to the private capital market and is running out of slot capacity (the number of permitted landings and take-offs), the board of management's focus is on constructing a third runway and a third terminal building.

Lufthansa is the dominant user of Frankfurt Airport based on *grandfather rights*. The airlines force Fraport to provide better services and conditions, including a Lufthansa/Star Alliance

dedicated terminal and a training centre near the airport, in order to compete with other Lufthansa hubs in München and Zürich.

Haneda's airport authority Japan Airport Terminal Co., Ltd. is directly subordinated under The Ministry of Land, Infrastructure and Transport's Aviation Department. The government owns the island; therefore the airport authority rents terminal buildings and runways. Japan Airport Terminal sub-rents the shops to retailers and service providers and determines the rent levels, which they are obligated to disclose to the MLIT (Interview Obuchi and Kuniwake 2004). The current focus of Haneda is the airport fourth runway construction and plans for a third terminal. The range of economic activities at and near the airport is limited. Furthermore, there are no plans for privatisation. On the other side of Tamagawa river, local governments of Ota ward and Kawasaki are in charge of Kawasaki coastal redevelopment.

ANA, JAL and Skymark are the dominant users of the airport, with recent terminal buildings for the airlines and alliance partners. The new second terminal is dedicated to ANA and Skymark, while JAL uses Terminal 1.

Narita Airport Authority (NAA) is in charge of managing the airport buildings and runways and focuses on three issues. First, the privatisation of the airport since 2004 with full sale of stocks to private owners in 2007 is a major issue (NAA 2004). Second, access to Tokyo needs improvement. Finally, local relations in order to expand the airport with a full second runway have to be improved. The airport area has strict boundaries and Narita city and Chiba prefecture are in charge of real estate development surrounding the airport. In Narita's violent past, the attitude was not to develop land surrounding the airport. However, recent improvement in cooperation with landowners and privatisation of the airport in 2004 makes NAA more active in buying land surrounding the airport territory (Interview Namekata 2004). This bought land cannot be developed until Chiba prefecture approves the change of land use in the future.

JAL, ANA and a few American airlines companies are the main users of Narita's airport terminals (see chapter 4). The renovation of terminal buildings will also in the case of Narita lead to dedicated terminals for the JAL alliance in Terminal 2 and ANA alliance in Terminal 1.

The involvement of actors is similar in Osaka's Kansai International Airport (KIX, 1994, managed by Kansai International Airport Company), and Nagoya's Chubu International Airport (CIA, 2005, managed by Central Japan International Airport Co.). These airport authorities are in charge of managing the airport terminal buildings and runways, and the land in between. On the other hand, prefectures are managing and constructing the other reclaimed coastal lands (Chunichi Shimbun 30.9.2004 and 4.10.2004).

A crucial difference in actor involvement is that CJIAC is a local and private initiative, where KIX is a prefecture initiative combined with a national prestige public works public-private partnership. CJIAC aims to reduce construction costs by applying the Toyota- management model. On the other hand, Kansai International is for technical and ambitious reasons an expensive airport that could resist the Great Hansin Earthquake of 1995.

In summary, the cases show a variety of positions of airport authorities and airport users. Jurisdiction of Schiphol and Fraport goes furthest; they are not only allowed to manage the airports, but they also develop buildings and infrastructure at the airport territories, and own

and operate airports abroad. In contrast, the number of activities of Haneda's airport are strictly limited, and in the case of Narita because of privatisation slowly expanding. The position of airlines as airport users is most efficient for the home carriers dedicated terminals of Lufthansa at Frankfurt, and JAL/ANA at Haneda.

#### 6.4 Commercial actors

Thus far the roles, instruments and power positions of the actors with a public role are described. On the other side we can find market parties with their own positions, interests and instruments. The developers offer capacity, knowledge, and interim financing that are necessary for developing real estate or entire areas. Developers can be distinguished as independent and traditional developers, developers from construction industries, financial institutes, and specialized airport area developers.

##### *Schiphol investors, project and area developers*

Schiphol Real Estate (SRE) was established in 1998 and is a full subsidiary of Schiphol Group. Schiphol Real Estate develops, manages and owns the real estate at the airport territory and at some airport-related locations in the region, e.g. the joint venture at Schiphol Logistics Parc (48% ownership) and A4-Zone. Project development includes platform-related industrial sites and airport-related office locations, thereby distinguishing itself from the airport-related industrial activities of SADC.

Schiphol Area Development Company (SADC) has been developing airport-related industrial sites in the region since 1987. Local and regional governments, Schiphol, and until 2003 the NIB bank participate as shareholders in SADC. The aim of SADC is to make full use of the spatial and economic potential in the region with a harmonized development model. Therefore, core activities are bringing sites on-line ready for development, project management, industrial park management, and regional infrastructure development (SADC 2005). Actual real estate development is not done by SADC itself but outsourced to real estate developers. At the end of the development process however, SADC is involved in the airport-relatedness test of interested industries. Furthermore, SADC shares services with Amsterdam Airport Area (AAA) for foreign marketing and sales of locations in the wider airport region. There is a wide and complicated variation in participation, ownership, management and marketing of locations in the region.<sup>14</sup>

Chipshol is a major private landowner, developer and asset manager. Chipshol bought large agricultural sites at the end of the 1980s near the airport territory in Badhoevedorp-Zuid, the High Speed Logistics Park that includes the Groenberg area near Aalsmeer, and Schiphol Rijk. Schiphol Rijk has been developed in cooperation with SADC and these rents are currently the main source of income for the investment company (Interview Poot 2004). Chipshol claims that it has a disadvantaged position and is discriminated against in area development, compared to those close to policy making related to SRE and SADC. They recently won a lawsuit over the Groenberg area construction prohibition by national assignment.

Mainland is a traditional developer that buys and develops land with mainly office real estate for international corporations in Schiphol Rijk, Lutkemeer, Nieuw-Vennep, Lijnden and Rijswijk.

The American distribution real estate specialists AMB and ProLogis are involved in several distribution centres around the airport. ProLogis is primarily focussed on developing sites and AMB's niche is service and ownership of land and real estate. ProLogis has buildings inside and outside of the airport territory, with DHL as one of the users.

Furthermore, there are land positions in the area held by banks, including ING Real Estate, Rabobank Vastgoed, and ABN-AMRO's Bouwfonds. ING Real Estate develops locations at Schiphol. Bouwfonds has bought land in Hoofddorp-West, and Rabobank in the Legmeerpolder, both for large-scale housing development, that has recently been banned because of VROM's new noise contours. Construction industry related developer AM does not have this problem in developing housing in Nieuw-Vennep-West (to be discussed in chapter 9.6).

Finally, national Dutch railways (NS) are partly involved as project developer, since the airport is connected to the Amsterdam-Leiden railway connection. Due large-scale station redevelopment projects in the 1990s, NS Vastgoed (real estate) could become one of the ten largest project developers in the Netherlands, but at Schiphol their role is subordinate to Schiphol Real Estate. The Schiphol train tunnel was build by NS' daughter Strukton joined by BAM and Ballast Nedam. Other relevant construction firms in the Schiphol area are KWS, Heijmans, Ooms, Koop Tjuchem, HBM and Dura Vermeer that join the group Noord-Holland-8 (further discussed in chapter 8.6).

#### *Frankfurt investors, project and area developers*

In the case of Frankfurt, Fraport is the main owner of land and real estate in the airport territories. Fraport AG is not directly involved in the project development as an investor, as Schiphol RE does, but is heading in this direction. Their portfolio of assets and facilities management is widening (Interview Rossbrey 2003). Fraport can be seen as the area developer with a general interest in creating an attractive business location and reducing financial risks. Recent cooperation with the city of Frankfurt has resulted in developing locations as Gateway Gardens in the wider airport area.

Deutsche Bahn can be seen as a special project developer as well. The national railway company is similar to Dutch railways in that they are subdivided into several businesses. Separate from the core activities of Deutsche Bahn businesses, are real estate development and energy supply; decentralised to nine regions. DB, including the station at Frankfurt airport Fernbahnhof, owns many attractive railway station sites that are available for redevelopment. Both Deutsche Bahn and Fraport are specialised developers, but not directly in charge of the AIRRAIL Center project.

The traditional developers are dominant in Frankfurt Rhein-Main. The bankruptcy of the Holzmann group has shown the risks of combining construction and developing interests. In AIRRAIL Center, the real estate developers are the subcontracted developers of Fraport and Deutsche Bahn, with their own financial obligations and expertise. Bilfinger+Berger, Adler Real Estate and IVG/Tercon are the main actors. Bilfinger+Berger is a developer from the construction industry. Adler Real Estate is a succession of the traditional real estate developer Roland Ernst, who quit operating as a developer. IVG is a large European project developer, concentrated in metropolitan areas and represented in AIRRAIL by daughter company Tercon.

#### *Haneda/Narita investors, project and area developers*

In Japan, real estate developers and constructors are the main players in transforming the cityscape. Mitsui Fudosan, Mitsubishi Estate and Sumitomo Realty & Development are the largest developers with a stock exchange listing, and are directly related to financial institutions. In order to find financing banks, contractors and subcontractors, large real estate developers often use their position in a group of cooperating companies, the *keiretsu*, led by major banks. Mori Building Corporation is a more independent player on the real estate market, without a stock market listing and not being part of a *keiretsu* (Chorus 2002). In addition, there are companies that have mostly retail and rail as core activities, but also own and develop land near the railways, e.g. Tokyu, Seibu and Japan Railways (JR).

The major constructors coordinate the construction activities and cooperate with several subcontractors. Nowadays, constructors are not only involved in construction, but also play a role during the entire real estate development process: buying land, planning, design, maintenance and management. The five largest construction firms are Kajima, Taisei, Shimizu, Kobayashi and Takenaka, and are part of the stable former so-called *zaibetsu* of independent companies. They have strong and privileged relations with the national government and therefore are in a stable position for receiving construction contracts.

In airport planning both major Japanese and foreign constructors are playing a role. Japanese constructors are competing with the steel industry in constructing the terminals and hangars. Despite the wide range of activities, the leading real estate developers in Japan are rarely involved in airport area planning – they are able to focus on more profitable sites in downtown Tokyo. An exception is Penta-Ocean, not a major regular construction firm, but a privileged developer. Penta-Ocean is an expert in Asian airport projects. Their portfolio includes Kansai, Haneda, Chubu, and Singapore.

Foreign real estate developers and constructors are allowed in the Japanese market after the international dispute of Kansai International Airport, where American constructors were not allowed to tender (Bongenaar 2001). Legal procedures and transparency are promoted, but informal cultural rules hamper entrance to the market. In Tokyo, foreign developers are not able to enter the attractive CBD market due to these informal institutions, and thus focus on peripheral attractive locations for development, for instance distribution centres and manufacturing parks near Narita.

#### *Schiphol asset management*

The aim of asset managers is to increase direct returns on investment and decrease financial risk by investing in real estate. The asset management market continues to globalise and increase in scale (Uittenbogaard and Rompelman 2002). The result is that more investment capital is available, but this also implies that more locations have to compete for asset managers. The real estate market is becoming more transparent. Trade will go faster in the near future, with less governmental regulation.

Despite the low office rents in the Netherlands, asset managers continue to invest in real estate. The main reason is that Dutch pension funds such as ABP are under the largest in the world, and are constantly looking for investment opportunities (Van der Krabben and Lambooy 1993). Furthermore, financial risks in the Netherlands are low due to governmental-led and stable urban development as a product of the consensus culture.

The Netherlands' National Investment Bank (NIB) was a bank set-up after World War II to invest in strategic sectors for national economic development. NIB was also involved in long-term financing in the Schiphol Area Development Company in 1987. NIB changed its name to NIB Capital, and was later privately owned by pension funds PGGM and ABP. NIB Capital withdrew as a SADC shareholder in 2003, since her intended role was more or less finished (Interview Migchelbrink 2005; see chapter 8).

Although separated by law in the Netherlands, project development and asset management in the airport region are combined within Schiphol Group in separate companies. Schiphol has a dominant position of 50% participation in the Airport City Real Estate fund ACRE. ING Real Estate investment fund owns the other 50% of the asset management company, therefore actually owning half of seven buildings on the airport territory that were brought into this fund in 2002. Finally, Kantorenfonds Nederland (KfN) is a major asset manager in the airport region that owns the World Trade Centres Schiphol and Amsterdam-Zuidas, amongst others.

#### *Frankfurt asset management*

Due to a new tax on project development for corporation owners/share holders in the Netherlands, the German commercial real estate market became more attractive for investment (Van Doorn and Jansen 2002). In the case of the AIRRAIL Centre for instance, the development coalition can postpone selling AIRRAIL, or keep it as an ownership trustee, until the real estate market is interested to buy. This is also possible due to the sheer/large size of German asset management companies that have large stakes in property holdings, such as Dutch shopping centres.

German banks operate more at a regional and local level, than in the Netherlands. Therefore it is possible to create coalitions and regional embeddedness for long-term investment in real estate. In particular, this is possible since both Landesbank and Sparkasse banks are partly owned by regional governments.

Owners of real estate in Frankfurt Rhein-Main are satisfied with returns on investment of 5.5%, which expresses the balance of required rents and total value (IVG 2003). This is lower than most of Europe and lower than the Schiphol region (7%). This shows the confidence in the real estate market and the quality of investment – the longer the period of high returns, the lower the expected return in advance. On the other hand, German real estate shareholders are conservative and avoid risks. These conditions of confidence and risk-avoidance made it possible to build the Messeturm tower in downtown Frankfurt with a direct return of 4%. In comparison, on average the real estate is of higher quality than in the Netherlands and with higher added value in the long term. In the central wards of Tokyo, locations are even more attractive for asset managers, with direct return on investment hovering between 2% to 4% (JREI 2003).

#### *Haneda/Narita asset management*

Real estate asset managers in Japan can be subdivided into three groups: life insurance companies, credit banks and land owners (Wijers 1988).<sup>15</sup> Since pension funds are not allowed to invest themselves, life insurance companies and banks are the direct investors of pensions. Life insurance companies are the main institutional investors, and as a rule buy the properties from real estate developers. Nevertheless, the recent trend has been insurance companies investing directly in real estate themselves (Chorus 2002). Credit banks are cooperating with land trusts in institutional investments, with Sumitomo, Mitsui and Mitsubishi as market leaders.

The landowner 'trusts' land to the credit bank in order to construct new buildings on the land. After the construction, interest and maintenance costs are assured, the bank shares part of the rent with the landowner. The aim of the land trusts is to have a more effective land use on the parcels. Thanks to the 'never sell mentality' of the land owners, the land trust is a commonly applied method.

The Development Bank of Japan (DBJ) has a special position in the group of credit banks, since it is a government related, but independent bank that supplies loans with interest rates below market level. Therefore, DBJ plays a role in supplying finances for the expensive airport expansions at Haneda, Kansai and Kitakyushu built on reclaimed land in the sea. Foreign direct investors and Japanese public-private companies can apply for DBJ loans. Furthermore, many companies, e.g. Japan Railways East (JR East) and Tokyu Co., own and keep land positions as a guarantee for loans, to avoid high land transfer taxes or make future activities possible. As a result, these businesses set up their own real estate departments and joint arrangements with institutional investors.

In sum, all case studies show project developers, constructors and asset management companies with considerable market positions that give these commercial actors a relevant role to play in the planning process. The activities in the discussed airport areas vary greatly. Commercial actors' activity is highest at Schiphol, ranging from speculators waiting for action to public-private partnerships. A similar pattern is found in Frankfurt, but with more careful consideration of which to play: real estate development is e.g. outsourced by Fraport to constructors, and the city of Frankfurt limits here role to facilitating the planning process. In contrast to Schiphol and Frankfurt, activity at Haneda and Narita is limited. Where the public National Investment Bank in the case of Schiphol invested in area development, the Development Bank of Japan focuses its investments on construction rather than area development, with Kansai as an exception.

## **6.5 Advisory organisations and other actors**

There is a wide range of advisory boards that are involved in airport area development in the case studies. These advisors can be distinguished into advisory boards with a direct stake, and the ones that try to advise more independently. Their main importance is niche knowledge or political-bureaucratic influence based on a formal advising position. In particular in the case of airports, a large number of advisory boards are involved. Fortunately, within the case studies similar kinds of advisors are involved and will be discussed together in brief. The overview of advisory actors is not exhaustive; the focus is on the most important actors involved and those who play a considerable role in the institutional analysis. The groups of advisory organizations are: government-related, advisors with business interests, advisors with interests in the construction industry, advisors with interest in transportation, and finally groups that are more case-study specific advisors.

### *Government-related actors*

In the field of economic and spatial development, the Netherlands Bureau for Economic Policy Analysis (CPB) is the most influential advisory organisation. In the case of public investment projects, a second consultation at CPB is required. Furthermore, CPB sets standards for forecasting and evaluation as others do, such as OEEI (Overview of Economic Effects of



Infrastructure, Ministry of Transport and Water Management 2000) and MKBA (Society Cost-Benefit Analysis).

The Netherlands National Institute for Spatial Research (RPB) is the second of four national planning agencies, which also include the socio-cultural bureau and the nature- and environment bureau. RPB is directly involved in evaluation of the airport noise reduction policies. Other major formal advisory boards without direct interest in urban planning in the Netherlands are *VROM-Raad* (advisement from Ministry of VROM) and *Raad voor Verkeer en Waterstaat* (advisement from the Ministry of Transport and Water Management).

#### *Business interests*

The second group of advisory boards aim to improve the regional economy. The Chambers of Commerce were founded for two reasons: on the one hand to protect the interests of businesses, and on the other hand to support the government in economic policies with private-sector knowledge. The American Chamber of Commerce in Japan is the local US representative and wrote a report on one of the most urgent economic problems, the lack of foreign direct investment in Japan (ACCJ 2004).<sup>16</sup> However, Keidanren is in Japan the most influential organisation of business interests (see below). In Frankfurt Rhein-Main, about 40 laws state that the Chamber of Commerce (IHK) should be consulted for local and regional issues, including airport expansion. The jurisdiction of IHK thus exceeds the jurisdiction of the Chambers of Commerce in the Netherlands (KvK). KvK Amsterdam stresses in the case of Schiphol, the importance of trade and transportation for the Dutch economy and is in this position joined by the national employers organisation VNO-NCW, and transport sector lobbyists of *Nederland Distributieland*.

Economic interests in Frankfurt Rhein-Main are not only represented by the Chamber of Commerce, but also organised in the *Wirtschaftsinitiative* and *Wirtschaftsförderung*. The latter is in charge of economic promotion on the local level. This organization is a typical German construct of an autonomous administration on the local level, but independent from governmental influence. The merged *Wirtschaftsinitiative – Metropolitana Frankfurt Rhein-Main* was set up by leading businesses, chaired by Fraport president Bender, in order to discuss regional issues with politicians. Efforts for a political-administrative counterweight to the economic interest are being undertaken – but are struggling. Even the name for the region: Frankfurt with or without Rhein-Main as adjective has not been without controversy.

#### *Construction and design*

The third group of advisory actors involved in airport area development is related to the construction, design and consultation industries.

The Japan Project-Industry Council (JAPIC) was established in 1979 and became one of Japan's four 'societies.' JAPIC is a council with construction sector related companies as main contributors and members. JAPIC's main aim is to contribute to society by improving infrastructure projects and land utilization in Japan. JAPIC's less influential sister organisation in the Netherlands is *Bouwwend Nederland*, that plays a profound role in advocating the Zuidas new business district between Schiphol and Amsterdam. In Japan, MLIT used to cooperate closely with JAPIC in developing the Trans-Tokyo Bay Highway, Makuhari New City Center and Kansai International Airport. Sorensen (2002) argues that this construction lobby group became highly influential in the 1980s, lobbying for new airports, highways and shinkansen projects, but is currently losing influence.<sup>17</sup>

JAPIC is involved in the New Tokyo Metropolitan Airport Research Council for studying a third civil airport for Tokyo in the long term. In cooperation with Japan Federation of Economic Organizations (*Keidanren*), Japan Association of Corporate Executives (JACE) and Tokyo Chamber of Commerce and Industry (TCCI), JAPIC established in 1993 the New Tokyo Metropolitan Airport Research Council (1993), with most Japanese business conglomerates as members. The council was involved in studies that explore the possibilities of a third airport in Tokyo.<sup>18</sup>

*Table 6.1* Overview of strategic actors in the airport areas case studies

	<b>Randstad-Schiphol</b>	<b>Frankfurt Rhein-Main</b>	<b>Tokyo-Haneda/Narita</b>
National ministries	Transport and Water (V&W) Housing, Urban Planning, Environment (VROM) Economic Affairs (EZ) Finances (FIN)	Transport, Construction, Housing (BMVBW)	Economy, Trade, Industry (METI) Finance (MoF) Land, Infrastructure, Transport (MLIT) Economic Planning Agency (EPA) National Land Agency (NLA)
Regional government	Noord-Holland (Zuid-Holland, Utrecht, Flevoland) provinces	Hessen (Bayern, Rheinland- Pfalz) states Darmstadt administrative district F-R/M regional planning association	Tokyo-to prefecture (Haneda) Chiba-ken prefecture (Narita)
Local government	Haarlemmermeer, Amsterdam, Amstelveen, Aalsmeer	Frankfurt, Kelsterbach, Gross- Gerau	Tokyo Ota-ward, Kawasaki, Yokohama; Narita, Tomisato, Shibayama, Takomachi
Airport authorities	Schiphol Group N.V.	Fraport A.G.	Japan Airport Terminal, Co.Ltd. Narita Airport Authority, Co. Ltd.
Airport users	Air France-KLM	Lufthansa Star Alliance	JAL, ANA
Real estate developers	Schiphol Real Estate (SRE) Schiphol Area Dev. Company (SADC), Schiphol, Mainland, AMB – ProLogis, ING – ABN-AMRO – Rabobank	Fraport Real Estate + Deutsche Bahn Fraport + Frankfurt joint ventures	
Constructors	Ballast Nedam, KWS, Heijmans, Ooms, BAM, Koop Tjuchem, HBM, Dura Vermeer, Stukton	Bilfinger+Berger, Adler, IVG (AIRRAIL)	Kajima, Taisei, Shimizu, Kobayashi, Takenaka Penta-Ocean
Asset managers	NIB Capital ACRE (SRE/ING)		Development Bank of Japan (Kansai, Chubu Intl.)
Advisory	CPB, RPB Chamber of Comm. Amsterdam Raad V&W, VROM-Raad	Chamber of Comm. F-R/M Wirtschaftsförderung Wirtschaftsinitiative Metropolitana	Keidanren, JAPIC Tokyo Chamber of Comm. and Industry, ACCJ
Others	NACO, RAND	RMV, regional media, AS+P	

Technology firms also tend to become stakeholders in the airport area. Siemens offered the technological knowledge and infrastructure for creating high-speed train connections between the airport and city-region in the scenario 'Schiphol in the North Sea' in the 1990s, and for the new München downtown-airport railway. Furthermore, airport consultants NACO globally, RAND in Europe, and AS+P in Frankfurt Rhein-Main have a role in contributing knowledge for the airport as a cityport, but are at the same time stakeholders.

#### *Media and transportation*

It is finally worth addressing two other groups of actors involved with Frankfurt Rhein-Main that are essential for regional integration. The Randstad does not have these two actors: regional media and public transportation associations.<sup>19</sup> Regional media are common in Germany since media are dependent on local and regional advertisers, with the German market is too large. Frankfurt Rhein-Main's daily newspapers are the *Frankfurter Rundschau* (FR), *Frankfurter Allgemeine Zeitung* (FAZ) and *Frankfurter Neue Presse* (FNP). Since the problems of cooperation in the city-region in general and the airport expansion in particular are major issues of debate, journalists are interested and write regularly about these issues and take part in public debates.

Another strategic actor is the publicly financed but independently functioning *Rhein Main Verkehrsverbund* (RMV). The concept of this regional transportation association was both urgent and progressive (Interview Lunkenheimer and Stanek 2003). Urgent, since until 1991 bus passengers had to buy a new ticket at the border of Frankfurt. Progressive, since all transportation companies were coordinated based on a strong concept, political support based on one-city-one-vote, cost-effective financing and solidarity amongst towns and cities. The RMV is taken seriously because it has its own budget. In the airport development, a direct involvement is found with the plans for the regional tangent west, that connects the airport in a more polycentric pattern with towns and villages west and east of the airport, rather than the current axes to Frankfurt. Randstad and Tokyo do not have a counterpart of comparable status and influence in the area development near airports.

The overview of strategic actors is not exhaustive but includes a variety of advisory actors. This is summarised in Table 6.1.

## **6.6 Airport area coalitions**

The actor coalitions that are created in the region can be subdivided at the national debate level: the growth of aviation and airport expansion on the one hand (the airport coalitions), and the spatial-economic development on the regional level on the other hand (airport area coalitions). For the most important decisions on expanding the airport and the construction of runways, the first debate is decisive. However, for further development of spatial and economic spin-offs in the region, a regional public actor coalition is indispensable.

#### *Schiphol airport coalitions*

Within the wider airport region, an uncountable number of actors are involved in planning, land and real estate ownership, development and airport usage. A limited number of actors are of decisive importance and are addressed here. In general, Schiphol, KLM, and the Ministry

of Transport and Water Management (V&W) are seen as the sustainable core of the airport coalition (Figure 6.1). The municipalities of Amsterdam and Haarlemmermeer, and to a lesser extent the province of Noord-Holland and the ministries of VROM and Economic Affairs (EZ), have been active in the Schiphol debates on long-term basis and are part of the (see Figure 6.1). Smaller towns do not participate in the formal airport debates actively; although for instance Aalsmeer opposed the new Aviation Law, but later finally accepted it.

Although the limits of growth of the airport at the current location were already pointed out in 1967 (see chapter 4.3), the national government has shown an unwillingness to acknowledge the conclusions of the report and has reacted with the creation of new commissions for further research (Dierikx and Bouwens 1997). Alternative locations were discussed, but ministries were worried about cost overruns of new airports constructed on islands in the Markermeer or the North Sea. Schiphol was and still is for logistical and financial reasons not fond of investing in an alternative location and lobbied for runway expansion. For decades, aviation continued to grow and Schiphol and KLM managed growth at the current location. In the end, the ministries joined the coalition with Schiphol and KLM. After debate in parliament, it was decided to further expand the airport capacity at the current location by building a fifth runway, despite opposition from local towns, residents and environmental groups. Political consensus was reached with the condition that both economic and environmental targets should be reached. With a fifth runway, noise in the built-up area would decrease, while more flights would be allowed, the so-called double target (*dubbeldoelstelling* in PKB Schiphol en Omgeving (1995)).

Figure 6.2 does not only show the position of actors in the coalition, but it also indicates the dynamics over time. Schiphol and KLM are long-term partners with the Netherlands Ministry of Transport (V&W in Figure 6.1) and its Civil Aviation Authority RLD in the airport growth coalition. Especially in the 1990s, the Ministry of Transport became a leader in the coalition with an expanding role in, managing, maintaining and controlling the development of Schiphol. The Ministry of VROM that introduced the mainport concept initially left the core of the airport coalition for environmental concerns, but recently returned for two reasons:

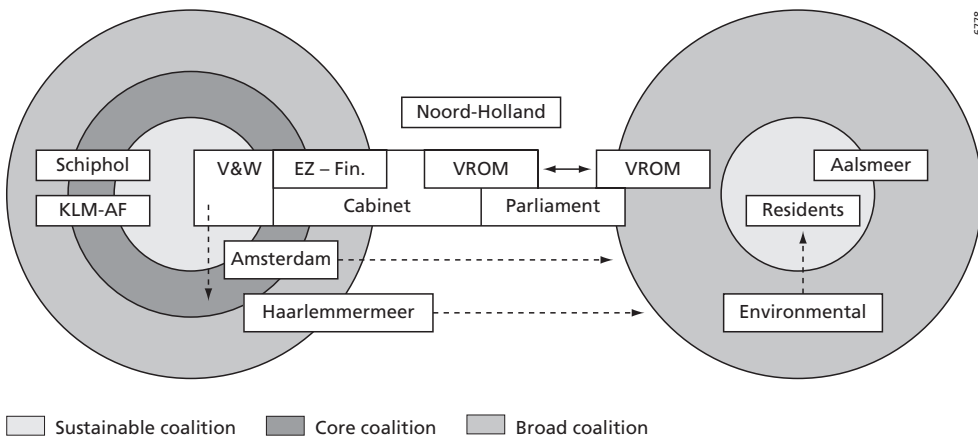


Figure 6.1 Schiphol growth coalition (left) and environment coalition (right) (Source: Figure based on Smit (2001))

the priority of economic development, and protection of the citizens by not allowing new housing concentrations in the noise contour areas. The province of Noord-Holland as a regional coordinator has recently backed the interests of smaller towns, and therefore opposes VROM's protective stance against further airport development. Before however, Noord-Holland and Haarlemmermeer were more supportive of the growth coalition (see Figure 6.1). Amsterdam was one of the key players in the coalition formation due to its dependence on the airport area for jobs and status of the airport for the city. Haarlemmermeer boomed due to aviation growth and was until recently a loyal but weak partner in negotiations with other actors.

Currently the 'growth machine' has stalled due to a general lack of confidence at the local level (Com. Eversdijk 2006) and remains in 'sleeping mode' (Interview Jacobs 2005). The Netherlands Ministry of Transport has recently become more aware of its ambiguous position between airport development and airport control. The focus on control moves V&W out of the traditional growth coalition. Schiphol Group itself claims to have improved its formal relations in the region but recent conflicts with actors in the environmental coalition show otherwise. Aalsmeer, Haarlemmermeer, Noord-Holland citizens and in particular environmental groups have recently moved further from the airport coalition. Air France-KLM is after the merger no longer a natural sustainable partner in the Schiphol growth coalition either (Van Boxtel or Huys 2005).<sup>20</sup> The current lock-in of the growth coalition will be stressed further in the section on institutions of governance, but has direct impact on the area for development near the airport. Not only are the impacts directly related to the noise and pollution problems but also the actor coalitions in the airport area.

#### *Schiphol airport area coalitions*

In the Schiphol region a wide number of regional cooperation platforms exist, some because of legal basis, some have legislative powers, and others are on a voluntary basis: BFS, BRS, CROS, ROA and *Noordvleugeloverleg*, in italics in Figure 6.2. *Bestuursforum Schiphol* (BFS) aims to improve economic and spatial development at the airport and in the wider region by nominating industrial and office locations for development, based on the shared policy document REVS. The members of Bestuursforum are Amsterdam, Haarlemmermeer, and Schiphol Group- chaired by Noord-Holland.

Regional coordination of the *Bestuurlijke Regiegroep Schiphol* (BRS) is subdivided into the core groups *BRS-klein* and for the wider region the larger *BRS-groot*. Amsterdam, Haarlemmermeer and Noord-Holland are members of the BRS-klein. They focus on regional planning issues comparable to BFS, however since Schiphol is not part of BRS-klein, an entanglement of public and private interests can in theory be avoided. BRS-groot is BRS-klein plus the provinces Zuid-Holland, Utrecht and 30 municipalities affected by airplanes (see Figure 6.2). The aim of the BRS-G is to inform the provinces on local and regional spatial and economic issues related to Schiphol.

The regional entity Amsterdam ROA (*Regionaal Orgaan Amsterdam*) is the 1992 successor of the regional platform of Amsterdam and neighbouring cities. It is a non-binding organisation that recently became more relevant due to the *Kaderwet* regional cooperation act that decentralises investments budgets.<sup>21</sup>

The *Noordvleugeloverleg* coordination platform of local governments in the northern wing of the Randstad recently became important and promising for cooperation in spatial and economic

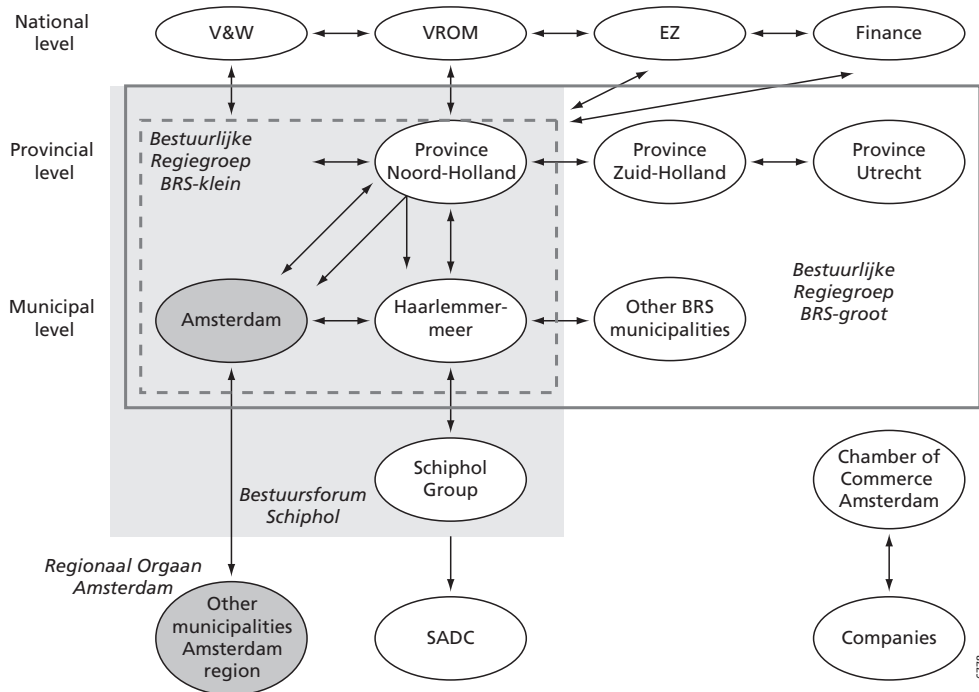


Figure 6.2 Coordination platforms in the Schiphol area (Source: Com. De Grave (2005:69))

strategies because of its noncommittal character. As a result, there is wide public support in the region (cf. Salet and Molenaar 2003).

Finally, CROS (*Commissie Regionaal Overleg luchthaven Schiphol*) is an independent platform that has representatives from provinces, municipalities, citizens, air traffic controllers, Schiphol and national airlines. More than the economic and spatially oriented BRS-groot, CROS focuses on environmental and safety issues of aviation in the area that is affected by Schiphol.

One of the main coordination organisations of industrial land development is the Schiphol Area Development Company. SADC is a unique public-private institutional innovation that exploits the benefits of an airport and the area surrounding it. It became an example for airport areas in Frankfurt, Berlin, and Stockholm. SADC mainly functions as a company, while other organisations are primarily coordination platforms.

The number of coordination platforms contributes to what Com. De Grave (2005) call 'governmental pressure' in the airport region. In the airport area development 'coalition', it is not only remarkable that many public coordination organisations dominate the playing field, furthermore it is striking that private companies in the right bottom of Figure 6.2, are not directly involved in the development process. Typically they are expected to reside under the Chamber of Commerce of Amsterdam. In particular, land owner and project developer Chipshol considers itself excluded from the development coalition (see chapter 9).

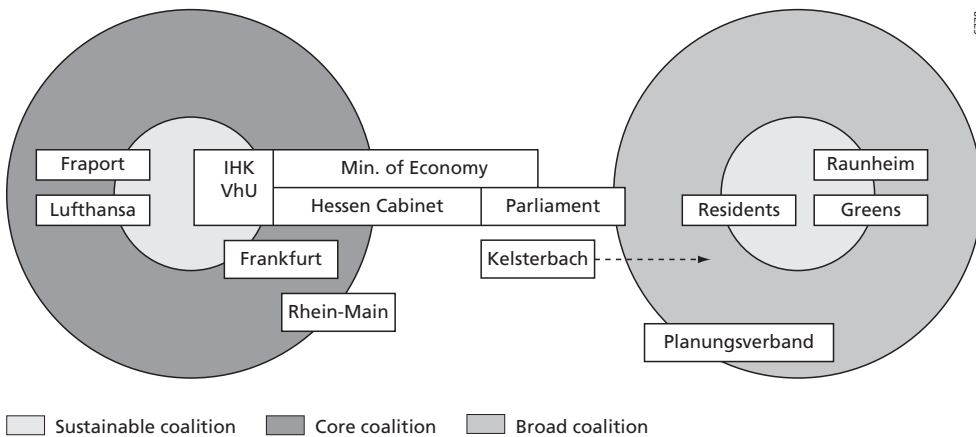


Figure 6.3 Frankfurt growth coalition (left) and environment coalition (right) (Source: author)

#### Frankfurt airport coalitions

The formation of growth coalitions and environmental coalitions near Frankfurt airport in Rhein-Main has a similar pattern as found in the case of Schiphol in the Randstad area. This might not be a surprise since the kind of spatial-economic and environmental problems are similar. In Frankfurt Rhein-Main, airport expansion by increasing the number of flights and runways is even more sensitive than in the case of Schiphol. The violent past of the second north-south runway construction has made Dierikx and Bouwens (1997:185) called the case “*expansion at all costs.*” This underlines the conflict mode in Frankfurt airport development in the last decades.

The federal level is not involved in the debate, since there is largely no national airport strategy, which makes the case different from Schiphol. The association of entrepreneurs in Hessen already in 1994 demanded a new runway for the airport, in 1997 Lufthansa made the same demands (Troost 2001). The important role of business association lobbies in Frankfurt Rhein-Main is therefore different from the Randstad-Schiphol case. Under a political shift of governing from the left (SPD-Grüne) to right (CDU-FDP), the difference is illustrated by Hessen’s parliament decision to install a 20 member mediation committee in 1998 with three mediators as chairs to explore under which conditions further airport development can contribute to the regional economy, without putting an extra burden on the environment and local citizens. The question was not if, but how to expand the airport. The biased position of the chairmen was the main reason for environmental groups not to participate (Troost 2001).

The mediation process of 1998–2000 should have led to win-win situations and consensus, but in fact created a rift between economic and environmental groups that have their own ideologies (Troost 2001:271). The final report of the mediators was presented as an unanimous decision in favour of airport expansion (Hänsch, Niethammer and Oeser 2002); this remained controversial (Troost 2001). A majority of Hessen’s governing parties CDU and FDP and opposition party SPD supported airport expansion plan and approved the start of the planning procedures. Despite the mediation process, airport growth coalition partners Fraport AG, Lufthansa, the City of Frankfurt, Hessen’s Ministry of Economy, and regional business associations<sup>22</sup> are still

at odds with the environmental coalition of environmental and resident groups<sup>23</sup>, joined by Planungsverband regional planning association (Figure 6.3). In the public debate, a majority in Frankfurt Rhein-Main supports airport expansion.<sup>24</sup> Kelsterbach and Raunheim strongly oppose the new runway. Despite obvious economic spin-offs, the housing environment would be degraded.

#### *Frankfurt airport area coalitions*

In the case of Frankfurt, airport area development is focussed on one particular project, the AIRRAIL Center. The project provides insight into the area development process near Frankfurt airport. The real estate development program near the airport is limited in number; in size however the AIRRAIL Center project alone is of serious proportions: 660 meter long and 65 meter wide, in total over nine floors or 200.000 square meters of offices, shops, hotels, warehouses and parking. The focus and technical issues at stake here are therefore different from the analysis of airport area coalitions at Schiphol.

Hessen's role is limited to the airside of the airport – the landside of the airport, with the real estate developments, is considered a local issue of urban design for the cities or counties. In 1999, during the time the new high speed train station at the airport was developed, Deutsche Bahn and Fraport AG intended to build on top of the ICE train station roof. Fraport is the owner of the land and the roof, and DB Station is the owner and manager of the station. Because of the ownership construction and business structure of Deutsche Bahn group, Deutsche Bahn Real Estate is not a direct partner.

The AIRRAIL organisation was set up to lead the development process (Interview Klärner 2003). The architectural competition won by JSK Architekten along with investors IVG/Tercon, Berger+Billfinger and Adler Real Estate became a construction consortium. The main problem of this development coalition was the fact that not all parties had the same interests in developing real estate. The parties were not discussing the plans at the same table, although the legal construction of the *Wohnungseigentumsgemeinschaft* requires support of all actors in the coalition. Technical problems of ventilation and fire security and opposition to demolishing the glass roof made DB oppose the first plans. This was partly because of miscommunication and lack of coordination between the *Eisenbahnbundesamt* that has to approve the construction plans and the City of Frankfurt.

The current problems are concentrated in the group of developers and are related to the lack of demand in the real estate market (Interview Klärner 2003). The project developers are looking for businesses to rent offices, retail and gastronomy on nine floors. Until 2003, Le Meridien Hotels signed to rent a third of the AIRRAIL Center and Ancor cancelled a proposed rental contract. The development consortium is still looking for an asset manager to sell the project; otherwise they keep it in their own portfolio (FAZ 4.11.03).

The crux is that the subcontracted developers do have risk-taking financial obligations to construct the AIRRAIL Center. A construction right of succession (*Erbbaurecht*) organises the ownership of Fraport and the right to sell the rights to develop for third parties. IVG Tercon, Berger+Billfinger and Adler pay a fixed price for the right of succession to Fraport. Fraport and DB themselves do not have direct financial risk-taking participation in the real estate development, but facilitate the project with the station and the roof construction. Although Fraport is expanding the real estate and facility management branch, risk-taking development



of real estate outside of the airport core activities is not the policy of Fraport AG (Interview Rossbrey 2003). The land use is flexible and determined by market conditions. The City of Frankfurt plays a flexible and facilitating role in this process.

In 2004, plans were made to redevelop other areas in the airport vicinity, in particular Gateway Gardens and Mönchhof. Fraport's real estate business division develops the latter. In the case of Gateway Gardens, the City of Frankfurt joined the development coalition with ING Real Estate, OFB and Gross real estate developers (Fraport AG 2004). Furthermore, consultants and architects of Albert Speer's AS+P play a profound role in influencing the City of Frankfurt, from their long-time advising relationship with the City of Frankfurt in spatial developments. Therefore, these actors can be added to Fraport, Lufthansa and to a minor extend Deutsche Bahn as partners in the airport area development coalition.

*Tokyo airport coalitions*

The subcase studies of Japanese airports are different from the European cases in time and spatial-economic position. The type of actors in airport coalitions however, is comparable and therefore presented simultaneously. Airports in Tokyo, and recent experiences in Nagoya and Kansai, put forward similar relevant actors in airport area development: the airport management, local and national authorities, real estate developers and landowners. However, the balance of power, responsibilities and success varies widely between the actor coalitions.

At the core of the airport growth coalition is the Ministry of Land, Infrastructure and Transport (Figure 6.4). MLIT in the case of international airports, manage the construction of terminal buildings and runways. Bureaucrats closely cooperate with LDP politicians and the construction industry for developing the airports. For a long time LDP politicians favoured spending on public works in order to obtain prestige and become re-elected (see chapter 8). The firms in the construction industry depend heavily on public works contracts for income. This actor coalition in the developmental state model led to large-scale investments in public works and gave Japan

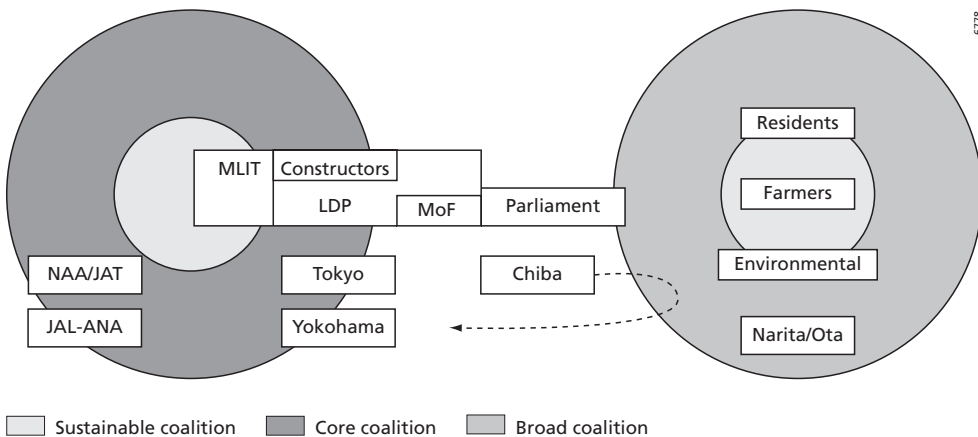


Figure 6.4 Haneda and Narita growth coalition (left) and environment coalition (right) (Source: author)

the name 'construction state'. The planning of Kansai International Airport is a typical example of this cooperation of bureaucrats, politicians and the construction industry (Bongenaar 2001).

Haneda airport is further expanded into the Bay of Tokyo, near the location it was grounded. For this case study there is hardly an outspoken public debate between opponents and proponents of the airport re-expansion at the current location, since it hardly causes noise and safety problems. The dominant actor here is the MLIT, that owns and paid for the airport, and more recently is benefiting from the profits. The airport authority, Japan Airport Terminal (JAT), is directly linked to the Aviation Department of MLIT. The prefectures and major cities are players in the airport area development too. Yokohama's mayor regularly lobbies for Haneda's expansion and internationalisation. Haneda is one of Tokyo's lifelines. Local governments do not have a formal voice in this development process, and the ministry is basically focussed on the airside infrastructure (Interview Oki 2004). Nevertheless, communities in Chiba that would be affected by the planned fourth runway were able to change the direction of the runway slightly.

The case of Narita is widely considered unique in Japan. It is said that the governor of Tokyo, the governor of Chiba and the Minister of Transport in the late 1960s decided to locate the new international airport in rural Narita.<sup>25</sup> This location would relieve air traffic pressure from Haneda and would develop the 'backward' area considered part of Chiba prefecture. Jointly with the airport authority, these actors can be seen as the growth coalition of Narita's international airport. The available imperial domains at Narita would minimise the problems of expropriation. However, the environmental coalition of farmers, local citizens, environmental groups and students protested not only formally, but also violently. Farmers continued by refusing to sell their lands that they either inherited from their ancestors or developed after the Second World War. Narita opposed the airport initially, but more recently has benefited from the economic spin-offs. It slowly prepares for airport area planning for when peace is returned (the shuffle in Figure 6.4).

#### *Tokyo airport area coalitions*

The area surrounding the airport territory is either a planning task of local communities, prefectures or project developers. MLIT is by infrastructure planning law not allowed to be involved in landside development near the airports. The position of local communities in airport area coalitions is ambiguous in airport coalitions outside Tokyo Metropolitan Area. Local citizens often fear and oppose the presence of an international airport. Particularly when local communities are surprised by new airport plans, opposition rises. Local politicians however, become convinced of the necessity of the airport after redevelopments and new jobs are promised, as in the cases of Chubu, Kansai and most recently Kobe (Interview Mr. Ueda and Mr. Tsuchiya 2004; Daily Yomiuri 17.02.2006). Local economic development is also used as an important argument for expansion of Narita's airport, although in that case, sensitivities of the local community are considered much more than in the past.

Next to the airport island of Haneda, Tokyo Metropolitan Government owns the land and is able to redevelop the sites. Kawasaki is bordering the airport island on the south side and lobbies MLIT for a new bridge to redevelop the former industrial sites of Tonomachi-Daishigawara (Interview Suzuki and Muramatsu 2004). For Tokyo and Kawasaki, Haneda is the gateway to

other parts of Japan. In reverse however, Haneda's orientation is of the MLIT, and does not consider Tokyo, Ota ward or Kawasaki as important actors in the coalition (Interview Obuchi and Kuniwake 2004).

Because of tensions between the growth coalition and environmental coalition, the City of Narita and to a lesser extent Chiba prefecture refused to take a position, and to coordinate land development in the airport area. In addition, Narita Airport Authority (NAA) primarily focused on the airside development. The current privatisation of the airport is making NAA less dependent from MLIT, although the new chairman is a former MLIT manager.

Privatisation pushes NAA towards generating more constant returns and sharing risks, therefore widening the range of economic activities, including investments on the landside. Narita is therefore more interested in the land surrounding the airport than before (Interview Namekata 2004). For real estate developers, the lands near the airport are not always the best investments, but there are signs of interest. For most office, hotel and housing developers Narita is too far away from the metropolitan area. Nevertheless, distributors are interested in the lands near Narita's airport, and there is interest in manufacturing, distribution and perhaps office development near Haneda.

## 6.7 Conclusion

This chapter first explored the variety of strategic actors involved in the development of the airport as a cityport in the city-region, their changing positions and planning tools. These actors form coalitions, either in favour of airport growth or against further airport expansion and urban development. This answers research question 2a – who are the actors and actor coalitions involved in the spatial and economic development of the airport region – the first step of the case studies' institutional analysis.

In terms of actors' involvement in airport area development, there are striking differences and similarities between the case studies. In the Netherlands and in Japan, the more dominant role of the national ministries in airport planning is remarkable compared to the federal state of Germany. In Japan this leads to a high degree of centralisation, resulting in a lack of cooperation on the local level. However, since the national government level is not allowed to be involved in the landside development, a mismatch of landside and airside development is institutionally embedded.

In Frankfurt Rhein-Main there is a clear picture of the roles to play: the federation is not directly involved in a strategic national project such as Frankfurt Airport. The state of Hessen is responsible for the airside expansion process, but leaves real estate and infrastructure development up to the city. The City of Frankfurt operates as a facilitator for the project developers; this ranges from Fraport's real estate department to other commercial developers.

The strikingly active role of governments in the Netherlands is to reach consensus by a patchwork quilt of coordination platforms. This active role can be seen in the national ministries' role in creating a mainport, but also on the local level exploiting the spin-offs of the airport in industrial and office development in the case of SADC. This public-private company became an international model for public and private benefits of airport spin-offs; Frankfurt and Tokyo

do not have these public-private airport area development companies. On the other hand, government's main role is to supervise and facilitate the private actors involved in airport area development. These different roles that governments play needs further understanding by institutional analysis.

In general, airport authority, dominant airlines and the national government, in particular transportation authorities are at the core of growth coalitions, while local towns, environmental and citizen groups are at the heart of environmental coalitions. There are, however, some differences between the case studies and remarkable changing of positions.

In the case of Schiphol, there has been a long tradition of cooperation between Schiphol Group, KLM and the Netherlands Ministry of Transport and Water. Lesser cooperation can be seen in the environmental coalition of environmentalists and citizens affected by aircraft noise, and other actors opposing airport expansion. Amsterdam, Haarlemmermeer and Noord-Holland supported the growth coalition in the end, but are becoming more sceptical, and in the case of the young and initially naïve municipality of Haarlemmermeer also more independent from and outspoken towards the growth coalition. The environmental coalition has strengthened in the last decade due to a lack of confidence and trust in growth coalition of the airport area. Furthermore, KLM is after a merger with Air France no longer natural long-term partners in the growth coalition.

In the case of Frankfurt, the growth coalition consists of the airport, airlines and business interest groups. Lufthansa and business groups took the initiative for further airport expansion. The airport is essential for the City of Frankfurt and therefore Frankfurt favours airport growth. Local towns oppose this expansion, mainly due to noise concerns, but they also enjoy the economic benefits, especially from the cargo industry. The politicised culture strengthens the position of the environmental coalitions.

In Tokyo, local LDP politicians, the Ministry of Land, Infrastructure and Transport, and construction firms form the core of the growth coalition. Airport authorities are less outspoken since they are more dependent on the MLIT. Airlines join the airport growth coalition. In the case of Narita a strong environmental coalition of farmers, citizens and environmentalists developed, but this is an exception in Japan. In most of the cases, cities welcome new airport infrastructure anticipating increased economic activity.

The strategic actors and their positions in the airport coalitions have been analysed. This is the first step of the case study institutional analysis. The actors' positions have been assessed, but it has not been made clear why the actors take certain positions and sometimes change their position. Therefore, it is essential to understand the rules of the game that are set for the actors on the playing field. These institutional dynamics are outlined in the following chapters.

## Notes

- 1 In the Netherlands (and Japan), there is no electoral threshold. Therefore, majority coalitions with minor parties are formed, for instance socialists and conservative Christians. In Germany, electoral threshold limits the number of parties in parliaments.

- 2 Despite the formal two-tier local structure (Tanimura and Edgington 2001), the importance of prefectures and regions at the regional level is without doubt. Japan is composed of three tiers.
- 3 Similar to the Netherlands, these planning agencies should not give the incorrect impression of rigid economic planning but are more for forecasting current developments (Tanimura and Edgington 2001).
- 4 Expropriation is a formal planning instrument that has not been applied since members of Chiba's commission were charged at the moment of deciding whether to expropriate landowners for the construction of Narita International Airport. Chiba's commissioners withdrew collectively. Chiba Prefecture decided not to install a new commission and agreed to negotiate with landowners. This case has created a precedent for not applying land expropriation in other cases in Japan (discussed in chapter 8 and 9).
- 5 The roles of the states and *Regierungsbezirke* in Bayern and Rheinland-Pfalz are not considered here and are of less importance for airport area planning in Frankfurt.
- 6 The neighbouring communities of the Airport for instance, were not members of the Umlandverbund Frankfurt.
- 7 The new swift and streamlined Act on Spatial Planning is likely to be enforced in 2007, with shorter participation procedures and project orders.
- 8 Despite Rotterdam's minor shareholder position in Schiphol Group it does not play a significant role in airport area development.
- 9 Therein Economic Affairs focuses more on attracting businesses in the city and Urban Planning has the priority to continue implementing the airport-relatedness test. The current growing awareness of the capital Amsterdam as part of the wider regional economy has shifted priorities from attracting all kinds of businesses to the city, to a more selective approach. Airport-related businesses are found in the western ring road distribution corridor and office development in the southern ring road corridor at Schiphol-Zuidas (Salet and Majoor 2005).
- 10 In economic terms, Aalsmeer relies on the spin-offs of the flower auction (16.000 jobs in the region) and related industries (40.000 jobs), called the 'flower mainport', causing congestion with up to 10.000 daily truck movements.
- 11 Tokyo started in 1919 with four types of zoning, currently there are 12 zoning types, of which seven are related to housing. See Chorus (2002) for a comprehensive study on the land use planning system of Tokyo.
- 12 Chorus (2002) found that despite Tokyo's land use framework, the results in Tokyo are not always in line with planning policies due to loopholes in land use regulations and limited legal punishment
- 13 Land readjustment is a method whereby a group of landowners can join forces to develop or redevelop land. In essence, it is a process whereby landowners pool ownership of scattered and irregular plots of agricultural land, build roads and infrastructure, and then sub-divide the land into urban plots (Sorensen 1999:2333). Land readjustment can lead to leapfrog development since it is easier to develop sites outside the urban area instead of the complicated urban sites with many landowners in this procedure. The district plan can only be made in cases where the majority of landowners that own the majority of the lands agree on proposed redevelopment.
- 14 SADC's developments include Lutkemeer-Osdorp, Lijnden, Schiphol Logistics Park, A4 Zone West, and Schiphol Rijk. Currently under discussion is more remote location development in the Amsterdam harbour area and Almere.
- 15 The main institutional investors amongst life insurance companies are Nippon Life, the 4th largest real estate investor in Japan, and Dai-Ichi Mutual Life, Sumitomo Life and Meiji Mutual Life Insurance Company (Chorus 2002).
- 16 Some consider the US as the main political opposition for Japan, where others consider their involvement as too dominant (Interview Benes 2004). It is a fact that the Americans influence that Japanese politics. The report argues that the Japanese market should be opened for foreign investors, not for the interest of

- American companies, but in order to revitalise Japan's economy and establish sustainable new jobs spread over Japan.
- 17 The main tool was "Japan's second budget", a large-scaled budget that could be spent on infrastructure while sidestepping the legislative process, and is directly under the control of bureaucrats. However, due to budgetary restraints and the financial disasters of the Aqualine and Kansai Airport, JAPIC has lost considerable influence (McCormack 1996, Sorensen 2002).
  - 18 However, currently MLIT is focussed on Haneda's re-expansion and the council is thus in a temporary sleeping mode (Interview Ona 2004).
  - 19 Neighbourhood and environmental groups are stakeholders in the airport area, but in order to focus on the regional economic development of the airport as a cityport, they are not described in detail in this section, but in 6.6.
  - 20 Despite the recent discussion and doubt over the feasibility of the *dubbeldoelstelling* from the beginning, both environmental and economic targets are actually reached: fewer citizens are affected by airplane noise, and aviation could continue to grow (Com. Eversdijk 2006). However, since new areas are affected by airplane noise, the feeling of an unfair target of the growth coalition is dominating the current debates (Haarlems Dagblad 22.06.2005).
  - 21 Amongst others, infrastructure from the national level to the regional level, thereby bypassing the province. Currently, ROA can independently decide on budgets of up to €250 million – a budget sufficient for free bus lanes, but not enough for light rail (Interview Jacobs 2005).
  - 22 In particular the Chamber of Commerce (IHK) and *Vereinigung der hessischen Unternehmerverbände* (VhU) join the growth coalition.
  - 23 A coalition of *Bündnis der Bürgerinitiativen* (BBI), *Interessengemeinschaft zur Bekämpfung des Fluglärms* (IGF), *Kommunale Arbeitsgemeinschaft Flughafen* (KAG), *Bund für Umwelt und Naturschutz Deutschland* (BUND), and *Schutzgemeinschaft Deutscher Wald* (SDW) (Troost 2001).
  - 24 In 2006, 62% of Frankfurt Rhein-Main citizens support airport expansion (FAZ 10.08.2006). The *Frankfurter Rundschau* newspaper invited airport, politicians and citizens to an open *Rhein-Main-Dialog* to further discuss the future development of the airport and the impact on communities (FR 12.11.2003).
  - 25 There are no documents that correspond with this anecdote, but it is referred to in various interviews.

## 7 Socio-cultural institutions

### 7.1 Introduction

The way policy problems are coordinated and policies are implemented varies from country to country. Japanese learned to cooperate to produce and share rice, while Dutch had to cooperate by building dikes to protect themselves from flooding. These kind of socio-cultural traditions have a long-term impact on current institutional arrangements.

In new institutional economics, understanding history and culture is an essential element of institutional analysis, since they can lead to path-dependencies. Institutions are not predetermined by the past, but can become ingrained, and therefore need further understanding (see chapter 5). In addition, institutions vary from case to case. In order to understand these variations and to do the local embeddedness of the case studies justice, further analysis of socio-cultural institutions and their historical roots is essential. These socio-cultural factors are seen as local cultural characteristics that provide a specific embeddedness, direction and support in the development process for the actors involved. It provides the national or regional framework of actors' and actor coalitions' behaviour. This is a stepping-stone to understand the consistencies and dynamics in the institutional arrangements in the case studies over time. Analysing socio-cultural institutions in this chapter, as well as financial, economic, governance and legal institutions in the following chapter addresses research question 2b: the institutions that determine the acting playing field for the actors involved. The dynamic and actor-oriented approach of institutional analysis directly includes research question 2c: where do inefficient institutions, path-dependent behaviour and institutional lock-ins leads to obstacles in the spatial-economic development of airports as cityports in the city-region?

For framing the variety of socio-cultural institutions of the different case studies, a theoretical framework is applied. The next section introduces the theoretical framework for analysing socio-cultural institutions based on the national regulatory styles of Van Waarden (1999, 1999a). For sociologist Elias (2003), national habits are not biologically defined, but closely related to the nation's construction of state regimes. Habits develop just like states or tribes over time. Therefore, socio-cultural institutions can be derived from the formation of state regimes. In particular, rule formulation, nature of the rules, implementation and enforcement as stages of the regulatory regime are explored from case to case. Socio-cultural institutions and their historic roots are analysed in the Netherlands (7.3), Germany (7.4) and Japan (7.5). Chapter 7.6 draws the main conclusions that have to be considered in the financial, economic, governance and legal institutional analysis in the following chapters.

## 7.2 Theoretical framework of socio-cultural institutions

Van Waarden (1999, 1999a) developed a framework of understanding differences in national policy styles can be divided into rule formulation, nature of the rules, and implementation and enforcement (see Table 7.1). In terms of rule formulation, the first question is if governments are willing to intervene at all. Closely related is the question of regulation; is this intervention mainly a task for governments, markets or societies and unions? In the stage of rule formulation, policy integration, distance to interest groups and the openness to newcomers in the policy arena are central issues. Finally, policy implementation and enforcement discusses different models of law enforcement and sectioning between the countries.

### *Regulation model*

The models of governmental regulation range from laissez-faire to market control. Hall and Soskice (2001) distinguish the liberal market economies from the coordinated market economies as main models. Economic and institutional performances in the long term are comparable, but there are striking differences in sector development: some economic sectors need closer cooperation and support by governments, and succeed best in a coordinated market economy. Other sectors need a more dynamic and environment, and prefer a liberal market economy.

The coordinated market economies can be more specifically distinguished into two types of regulation: self-regulation by unions and societies, also known as corporatism, and state intervention or etatism. The case studies are examples of variation in degrees of self-regulation. Coordinated market economies in continental Europe have a tradition of intervention, but even more than in France, governments in Germany and the Netherlands are inviting civil society groups to participate in the regulation process (Van Waarden 1999).

### *State intervention*

The point of departure is whether states are willing to intervene at all. The extremes are the American active interference on the things one hand – if considered necessary to intervene, the American government has the tools to do so, and does intervene strongly – and the British passive role on the other hand (Van Waarden 1999). It is therefore according to Van Waarden a misunderstanding to link liberal systems directly to reactive styles (1999a). For American policy-makers, problems are there to be solved, which contributes to the active policy style. The French model of étatism leads to active state intervention as well.

*Table 7.1* Overview of national regulatory styles

<b>Dimension</b>	<b>Ideal-typical extremes</b>
Regulation	state-corporatism-market
Intervention	active-reactive
Policy integration	integration-fragmentation
Civil society groups (interest groups)	antagonism-protectionism-consensus
Civil society groups (newcomers)	formalism-informalism
Policy implementation and enforcement	legalism-pragmatism

Source: based on Van Waarden (1999, 1999a)



Table 7.2 National regulatory styles in the case studies

Dimension	Netherlands	Germany	Japan
Regulation	Unions and societies Corporatism	Unions and societies Corporatism	State Corporatism
Intervention	Moderate active	Moderate active	Moderate active
Policy integration	Planning – integration	Moderate planning	Planning – integration
Civil society groups (interest groups)	Consensus	Consensus with authority	Consensus
Civil society groups (newcomers)	Formalism	Moderate formal	Formalism
Policy implementation and enforcement	Pragmatic	Legalistic	Pragmatic

Source: author

Japan, Germany and the Netherlands are closely related in the average level of government interference (Table 7.2). The state level in the Netherlands and Germany has relatively high ambitions of steering and regulation of their societies in order to compensate for market imperfections and limit market competition extremes. These ambitions of state intervention are however limited by the self-regulating model of corporatism. The continuous policy making process is in the end partly left up to the unions and societies to implement by themselves. Intervention and government activism in the Netherlands is tempered by the flexible dealing with legal rules as well, to be discussed below. In Japan, the ambition of intervention is more passive, with a focus on development projects instead of planning regulation, which will be discussed in the section of planning culture.

#### *Policy integration and planning culture*

The ambition, willingness and possibilities to integrate policies into integrated plans are different between the extremes of France (high policy integration) and the U.S. (low). The Rhineland model in Germany and the Netherlands is a moderate position. The US institutional system of many checks and balances is the main reason that America has few integrated plans. For all actors involved, up to court ruling, there should be some ‘pork’ in the ‘barrel’ and therefore the final result can be quite different from the initial plan (Moe 1987). The ability and willingness to integrate governmental measures into long-term policies have the best institutional conditions in central planning countries like the Netherlands and France (Van Waarden 1999). Political control and stability, control of bureaucracy, planning tradition and education of bureaucrats are decisive factors for policy integration in the case studies and will be analysed for the case studies in sections 7.3-7.5.

#### *Role of civil society groups*

There is a variety of ways of how governments deal with civil society groups in the policy making process. Van Waarden (1999) distinguishes the distance between government and special interest groups, and the distance to newcomers with their own interests in the established regime.

The first dimension describes the distance to special interest groups: is policy making made in cooperation with unions and societies (consensualism)? Or does the government prefer to distance themselves from interest groups out of fear of entangling interests (antagonism) or out

of protectionism (paternalism)? Both antagonism and paternalisms are types of adversarialism (Van Waarden 1999a, see Table 7.1). The U.S. is the prime example of antagonism, since authorities consider distance with special interest groups as part of democracy. This distance avoids suspicion of bias, preferential treatment, or even corruption. France has its own version of antagonism, but French bureaucrats see themselves as guards and trustees of the state and state interests. Because of their high social status, French authorities are not easily suspected of bias.

The Netherlands and Japan have, in contrast, consensus-oriented relations between government and civil society groups (Table 7.2). These groups are involved in policy preparation, where interests are considered and concessions are made, and law enforces consultation. A quintessential part of consensus orientation is the acceptance of contradictions (*ibid.*). England and Germany take a middle position between antagonism and consensualism. The type of consensualism in the case studies varies. This will be discussed in the socio-cultural institutional analysis of the case studies below.

The second dimension of the role of civil society groups describes how open the policy process is towards newcomers to the establishment, with formalism in the U.S. and informality in England and France. Germany and the Netherlands take middle positions. For the same reasons as antagonism, U.S. policy makers are formalistic in dealing with established contacts and newcomers interest groups. British and French authorities in contrast do not hesitate to have informal and even secret contacts, making their policy making more efficient and less bureaucratic, but also less transparent.

#### *Policy implementation and enforcement*

Policy implementation and enforcement can be either legalistic or pragmatic. Dutch law enforcement is mostly pragmatic with a flexible interpretation of the law in order to inspire confidence and educate instead of acting as a police officer.<sup>1</sup> The weak policy enforcement is historically embedded due to the fact that the laws cannot be contested by constitutional court appeal as is possible in the German *Bundesverfassungsgericht* or comparable U.S. Supreme Court. The highest court in the Netherlands is the Council of State (*Raad van State*). These The U.S. and Germany have a more legalistic style of maintenance. The Dutch pragmatism is reflected in commonly used dispensations, policy experiments, evaluations, and tolerance of illegal drugs and prostitution (*gedogen*).

### **7.3 Socio-cultural institutions in the Netherlands**

With the ideal typical dimensions in mind, it is necessary to have a closer look at the case studies' policy styles in order to obtain understanding of the historical, political and socio-cultural roots of the institutions analysed in the previous chapters. It is worth analysing how the corporatist tradition, moderately active intervention style, integrated and centralised planning, consensus oriented approach of unions and societies, to some degree formalist approach towards newcomers, and pragmatic maintenance style work in the Netherlands in general and in the Randstad-Schiphol case study in particular. The socio-cultural institutional analysis has the historical roots as point of departure and will be addressed in brief.

### *Dutch consensualism*

The Netherlands separated from the German Empire and later the Spanish Empire, which co-determined the self-image and nation until today (Elias 2003:18). On the one hand self-governing cities developed, while on the other hand foreign policies as well as public water works for self-defence were jointly set in the *Staten-Generaal*. Cities such as Amsterdam and Utrecht sent their bourgeois representatives to parliament and therefore only in Holland the top of the social hierarchy was filled with commoners (*ibid.*). Between these commoners and Stadtholder noblemen reciprocal confidence grew over time and major conflicts could be overcome. The art of governing by negotiation and compromises was transferred from the city level to the state level. This is the historical explanation of the informal institutional structures in the Netherlands and the basis of consensualism and pragmatism. The commoners dominated the policy-making arena by negotiation and compromises, with a deep-rooted sense for equality as a result. In Elias' words: the cultivation of equality above all. This also explains – despite physical similarities and vicinity – the relatively large differences between Dutch and German habits in policy making.

The small scale of the Netherlands strengthens consensus orientation (Dijkink 1990:127). First, the relatively large outside world forces the small countries to cooperate internally. Second, policy makers meet regularly and are therefore forced to react consistently either by disagreeing or by agreeing. These exact effects can be seen in the Schiphol area: first consensus on developing the airport area in order to stay competitive, then policymakers have to respond constantly to new plans, while getting entangled in a net of governance structures and actor coalitions in the airport region (see chapter 6.6; cf. De Grave 2005).

### *History of centralisation in the Netherlands*

In order to understand centralisation and integration of policies in the Netherlands 'decentralised unitary state' after the era of Stadtholders and commoners, Auke van der Woud took a closer look at the Batavian Republic (1795-1806), when the Netherlands was a tributary vassal state of France, the French occupation (1806-1813), and the establishment of the Kingdom of the Netherlands afterwards up until the introduction of the constitution law in 1848 (Van der Woud 1998). Unification brought needed modernisation to the Netherlands (De Jong 2002a). In the 19th century, the waterworks construction agency *Rijkswaterstaat* and King Willem I were the main instigators for this modernization by centralisation.

First, Rijkswaterstaat had specialised knowledge in water management and land reclamation. They strived for the integration of local water management interests with higher levels of planning. The search for the appropriate level of scale for water management is one of the reasons for a continuous change of borders of territorial units in the 1820s (Van der Woud 1998). Rijkswaterstaat started at the national level, as the French occupiers introduced it. It began with the characteristics of a French model, but later decentralisation of functional units led to regionalisation, which was in-line with the new constitution.

Second, King Willem I initiated major public works in the Netherlands. In the beginning of the Kingdom in 1815, the King had wide legislative powers to develop these projects.<sup>2</sup> Not only canals for waterworks and reclaimed polder land, but also railways and national roads were constructed in the name of national unity. These projects did not focus on developing new regional centres; instead they improved the economic position of the traditionally dominant cities. As a result, there was an economic reorientation of the competing cities of Amsterdam, Leiden and Utrecht (De Klerk 2006). King Willem I improved unity in the Kingdom, but these

projects caused a major financial burden.<sup>3</sup> According to Van der Woud, the Dutch government wittingly lacked transparency in the then “police state”, in order to serve the national interest without constant interference of parliamentary accountants (Van der Woud 2003:523). This lack of transparency and insight for parliament is an institutional consistency that can even be seen today. A comparison of the planning procedures of the Betuweroute and HSL-Zuid railways demonstrates this (Tweede Kamer 2005).

Until the introduction of the new constitution of Thorbecke in 1848, the provincial law in 1850 and municipal law in 1851, local and provincial governmental tasks were not clearly defined. Since the introduction of this new constitution, provinces were more or less set off-side, because provinces lacked their own revenues. In the mean time, the construction of a railroad network contributed to the unitary state and further centralisation. This was made possible after curing government finances in the 1860s and 1870s; banks loans, and new investment companies were set up (De Klerk 2006). The idea that infrastructure could be a government investment became commonly accepted. After the economic spin-offs from investment in urban projects were proven, the conservative city governments were waking up and started following this trend. The construction of Schiphol airport by the City of Amsterdam is one example.

#### *Policy integration*

The ability and willingness to integrate governmental measures into long-term policies are the best institutional conditions for central planning in countries such as the Netherlands and France (Van Waarden 1999). Political control and stability, control of bureaucracy, planning tradition, and education of bureaucrats are decisive factors for policy integration in the case studies. Bureaucracy control was discussed above.

First, the Netherlands has a history of majority coalition governments that contribute to political stability. Most coalitions are near the political centre and major political shifts in airport policies were not found, as chapter 4 showed. Dutch consensualism is furthermore one of the main reasons for the depoliticised planning culture, where in contrast Belgian and German planning culture is politicised (cf. De Vries 2002). The lacking of explicit political choices and policy changes are described by Dijkink (1990) as collective amnesia and groupthink, which can be explained by a human need for cognitive consistency and avoidance of dilemmas and sacrifices. The relative silence of airport growth at Schiphol compared to riots and demonstrations in Frankfurt and Narita illustrates this tendency of avoiding political conflict in the Netherlands.

Second, the Netherlands have a strong planning tradition that goes further than the ‘state within a state’ Rijkswaterstaat. In the Netherlands, planning is generally accepted and is closely related to the notion of a society living in self-made polders protected by systematically planned waterworks. After this necessary national waterworks agency was established, the national planning trend spread to other policy sectors (Van Waarden 1999:358). The names of the Dutch national planning bureaus refer to the planning acceptance in the Netherlands: if translated literally, Spatial Planning Bureau (RPB), Economic Planning Bureau (CPB), Social-Cultural Planning Bureau (SCP), and Nature and Environment Planning Bureau (NMP, see chapter 6). Almost all of these national planning agencies have their sector-specific role to play in Schiphol policy advisement.

Third, training and recruitment of bureaucrats for the ministries are essential for policy integration and long-term planning. Ministries in the Netherlands have created their own

bureaucratic professional traditions: engineers at the Ministry of Transport, legal experts at the Ministry of Justice, economists at the Ministry of Economic Affairs and urban planners at the Ministry of Housing and Spatial Planning. According to Van Waarden, this led to pluralism, with greater activism at the transport and spatial planning departments, and a reactive approach at the economic and justice departments. This understanding of bureaucratic professional recruitment and education is also important for understanding the problems of horizontal coordination (sector 'pillarization') in the Netherlands, as later discussed in chapter 9. In managing the 'tribe wars' as found in the beginning of the 1990s, necessary institutional change does not have to go as far as merging ministries as in Japan and in Germany; a more diverse recruitment policy can also be useful.

#### *Dutch corporatism and moderate intervention*

Germany and the Netherlands both have an average level of government interference. Dutch and German states have relatively high ambitions of steering and regulation of their societies, in order to compensate for market imperfections and limit market competition extremes. In contrast to the U.S., there is no Dillon's Rule (also known as *ultra vires*) that declares local jurisdictions are the creatures of the state and may exercise only those powers expressly granted them by the state (Grumm and Murphy 1974). Intervention and activism however are tempered, and in the case of the Netherlands, flexible with legal rules (Van Waarden 1999).

Regulation can range from market (liberalism) to state (etatism) and societies (corporatism). The Netherlands has a high degree of corporatism, where labour unions see political participation as an aim and are reform-oriented. Appreciation of Dutch corporatism shifts from time to time: from the cause of Dutch disease in the 1980s, to the basis of the Dutch miracle of the *poldermodel* in the 1990s based on neo-corporatism (Visser and Hemereijck 1997), but what is considered 'muddling' since the national elections of 2002. Apparently, corporatism has a life-cycle that regularly needs reinvention adjusted to new circumstances (Schmitter and Streeck 1987).

Dutch corporatism has deep and broad roots in society, with associability, subsidiarity, collegiate governance and consensualism as main features with historical roots (Van Waarden 2003a). Associability dates back to the era of trading cities in the Dutch Republic (1581-1795). It was the first in Europe to have a bourgeois society organized into many formal organisations as guilds, chambers of commerce, and shipping trade companies, etc. Even central state tasks such as defence and diplomacy were privatised in part under the Republic. The principle of subsidiarity for instance was used for the United East Indian Company (VOC). These are according to Van Waarden indicators that there was no real separation between government, society and economy (*ibid.*).

Despite post-war socio-cultural depillarization of society, associability and subsidiarity as institutions of corporatism exist to this day. This insight can help to understand and analyse a public task with a corporate business model like Schiphol Group in its early stages, and the unique model of municipal land supply companies, both discussed in chapter 8. Schiphol co-determines policy making, although sometimes obviously to its own advantage and at others' disadvantage, but with the public interest the company represents a decisive position.

### *Moderate formalism*

Dutch bureaucrats combine a consensus orientation with moderate formalism in its relations with organised interest groups. In the Netherlands, explicit equal representation used to be required due to the history of denominationalism along social-political lines of liberals, socialists, Catholics and Protestants. Equal representation can hamper access of new (informal) interest groups to the policy-making arena. Furthermore, the relative formalist approach can lead to privileged access of organisations, with acceptance of monopolies as a result. The established denominationalisms of socio-economic groups in combination with national planning bureaus are the reasons Faludi (2005:299) see a clear path to dependency in Dutch planning. Each pillar runs its own system of provisions, including housing corporations, leading to the described corporatist structure.

The negative side-effects of moderate formalism from the case study can be seen in the institutional problems of Schiphol. The contacts between the established actors involved in area development have improved, while in the wider region the general sense of distrust has rapidly increased for its citizens. Other developers feel excluded or are excluded from developing the potential of the Schiphol area (see chapter 9).

### *Dutch pragmatism in policy implementation and enforcement*

The pragmatic and tolerant style of policy implementation and enforcement in the end is a major cause for the toning down of interventionism and activism from Dutch bureaucrats (Van Waarden 1999:337). Dutch pragmatism is reflected in commonly used dispensations, policy experiments, policy evaluations, and tolerance of illegal drugs and prostitution (*gedogen*). This tolerance in combination with moderate formalism hampers access to newcomers, and is also one of the reasons that the Netherlands could become a formalised and regulated “cartel paradise” protecting amongst others, the construction industry. Only recently have they occasionally suffered devastating competition (Van Waarden 1999:335). As long as governments did not introduce new legislation for bidding, cartels with price agreements could continue to exist. Chapter 8 will discuss the cartels in the construction sector in the 1990s in depth. Cartels are not new, as they were characteristic for the self-satisfied and institutional lock-in era following the 17th century Golden Age (De Klerk 2006). American legalism would have led to court appeals already in the 1990s, but the European Commission is getting more active in dismantling existing cartels in the Netherlands today.

## **7.4 Socio-cultural institutions in Germany**

German socio-cultural institutions can be characterised as moderate: corporatist, moderate formalism, moderate planning ambition and consensualism, combined with legalism and perfectionism. These moderate positions are not average positions, but carefully balanced between more extreme institutional standards.

### *German corporatism*

Germany’s regulation model can be defined as corporatist with unions and societies playing a significant role in the co-production of policies. The German model is however less corporatist than the Netherlands and Japan. Sectorism is more dominant, with political confrontation

creating autonomous areas of regulation. This sectorism with the decentralised structure is one of the major reasons that the revival of corporatism in the Dutch *poldermodel* in the 1990s could not be implemented successfully to make the German welfare state more competitive (Lehmbruch 2003). Institutional change in Germany is limited by the strong position of labour unions. These unions in a large country such as Germany need substantial deliberation. Employers are less organised in Germany than in the Netherlands. In addition, states that are represented in the *Bundesrat* house of representatives in Berlin, tend to block or delay governmental reforms when political majorities are different between *Bundesrat* and national parliament, the *Bundestag*, or when state interests are at stake. This is considered one of the major challenges for institutional reform in Germany.

#### *German formalism*

In the case of France, England, Sweden and Russia, feudal class-based societies in the Middle Ages were continuously reconstructed towards solid integrated nation states with the king as sovereign leader (Elias 2003). In the German empire however, local monarchs held the positions of power. Furthermore, Germany's unification process and regime building in the 1900s was strongly influenced by the difficulties of integrating Slaves, Latins and Germans. During the Middle Ages the German empire lost its leading role. The conflicts with Prussia and Habsburgs that followed in the 18th century were stopped by Bismarck's last victory, which is the basis of the current Germany. According to Elias, the victory of German armies over France was at the same time a victory of German noblemen over the German bourgeoisie (2003:22). Since then, the bourgeoisie have taken over the norms and models of the aristocracy, with formalism as a rule and some liberal commoners as exceptions.<sup>4</sup>

For Elias, the path dependencies of formal structures since the Middle Ages are too deeply rooted to be swept away by post-war attempts to further informalise German society in the 1960s and 1970s. This history explains the formal institutional structures in Germany today. Van Waarden (1999) considers Germany to be less formalistic than the Netherlands, since relationships between governments and civil society groups are less outspoken. For example, the Netherlands formerly required equal representation of liberal, socialist, Catholic and Protestant parties.

German formalism was also found in the case study interviews (Van Wijk 2004). Bureaucrats on all levels define their responsibilities and position in the hierarchy precisely. This leads to less interference in another actor's jurisdiction. For instance, in an interview the Hessen state Ministry of Economy would not give her opinion on real estate development near the airport since it is not within her jurisdiction. On the other hand, formalism can lead to a less pragmatic approach and bias towards their specialisation. In the case study, project developers criticised the compartmentalisation of specialists in the Frankfurt civil service.

#### *Moderate planning and consensualism*

Control of bureaucracy, planning tradition, political control and stability, and education of bureaucrats are considered the four decisive factors for policy integration in long term planning, as introduced in section 7.2. Federalism, political stability, politicisation of planning and the juridical background of civil servants' positions limits planning and intervention. Therefore, German planning lies somewhere between the central planning of France and fragmentation of the U.S. and U.K.

Firstly, in German state intervention, activism was limited by power sharing of local shires and duchies.<sup>5</sup> Later with the federal state model, sector specific policy making areas were defined. This turns out to be a deciding factor in the case study of Frankfurt Rhein-Main's passive state intervention. It was not until German unification in the 19th century and the railroad construction with Frankfurt as a regional node, before territories in Hessen were connected and started to integrate. This is the reason that spatial organisation structures are still dominated by the splintered past of the city-region, e.g. local districts and local banks (Freund 2002). It provides the historical background for the lack of regional cooperation as described in chapter 8.<sup>6</sup>

After the Second World War the federalist state model was introduced and can be seen as a path dependent institutional successor of the autonomous shires and duchies in the German Empire. Germany has a planning ambition in common with the Netherlands (*Gemeinschaftsaufgabe*). German institutional roots of planning are strengthened by legalism and perfectionism (discussed below). The planning ambition is carefully limited by federalism, where planning is a responsibility of the states, and the federal level has few instruments to intervene in planning (Mayntz and Scharpf 1975). Therefore, Alterman (2001:13) categorises the Netherlands, Japan and Israel as countries that institutionalised national planning, where Germany and Britain are considered as 'half-haves.' Those countries that have national urban planning institutionalised used this instrument for nation-building, reducing inter-regional disparities and for dealing with higher than average population densities.

Secondly, planning ambition is moderate due to the political system. The right-centre CDU tends to govern with the liberal FDP, whereas the left-centre SPD tends to govern with the Greens. This might lead to political shifts after elections. The interviews in Frankfurt Rhein-Main however, show that this is not the case at the regional or local level. First, the political party that is in charge will choose the middle of the road to keep the majority of voters satisfied. Second, the influence of politics on the planning of projects that are widely considered necessary is limited. For instance, all political parties support investments in the S-bahn network, road network and downtown offices. Despite changing coalitions, since post-war times Frankfurt Rhein-Main has experienced stable growth (Ronneberger and Keil 1995, Ploeger 2004). In the case of Frankfurt International Airport, not only do the FDP and CDU support airport expansion, but also the SPD favours the jobs and economic growth over environmental concerns.

Third, despite these nuances, urban planning in Germany remains politicised, as consensualism is not as ingrained as it is in the Netherlands. In the interviews, some actors envied Dutch consensualism. Germany also has a consensus orientation, but authorities in the end do not hesitate to object (Van Waarden 1999). In the case study area however, governments are not in the institutional position to push through their plans in the end. Nevertheless, regardless of the consensus orientation in Germany, according to former Frankfurt planning alderman Wentz (1992), it is harder than ever before to continue consensus making in urban planning, since nearly all projects generate conflict and resistance. This is reflected in the case study, where a strong and active minority of environmentalists and local communities oppose further airport development. This politicised nature of airport planning is the third factor for moderate planning and the lower degree of consensualism.



The fourth and final element for the degree of policy integration is recruitment and training of bureaucrats. Germany along with France and England has a central administrative office for recruitment of future bureaucrats. This office is dominated by and focussed on legal experts (*Juristenmonopol*). For higher civil servant positions it is essential to pass legal tests. These bureaucrats furthermore increase the legalistic culture in policy maintenance (Van Waarden 1999). This common legal perspective of bureaucrats however, also reduces the chance of pillarization between the ministries as can be found in the Netherlands and Japan.

#### *German legalism*

The style of policy implementation and enforcement in Germany is legalistic. Federalism and corporatism adds some flexibility to maintaining laws and implementing planning (Van Waarden 1999). Germany combines legalism with moderate consensus since bureaucrats are often required to have a background as a lawyer or pass state exams in law. Furthermore, German legalism is based on the higher status of legal institutions. Where most interviewees in the Randstad case study see legal rules of the game as a necessary evil, Germans are more positive, and accept that laws are necessary to defend particular interests. The image of the German Weberian conservative bureaucrat with a legal attitude however can be nuanced by Putnam's findings (1973). German bureaucrats are comparable in social and political engagement as their English colleagues, while Italian, and as the interviews show Japanese bureaucrats are more conservative. This is mainly a matter of age: Italian and Japanese higher bureaucrats are older and focus more on legal equality and economic interests.

## **7.5 Socio-cultural institutions in Japan**

Current institutional arrangements can only be understood by studying historical roots of socio-cultural institutions since the Tokugawa era. Therein, Japanese socio-cultural institutions show combinations of centralism with consensualism, state regulation with corporatism, and political stability with a depoliticised nature overall. The interpretation of planning is furthermore very different from western countries.

#### *History of centralisation*

The Tokugawa era started in 1600 when Tokugawa Ieyasu, the last of three great generals established the Pax Tokugawa. After a long period of battles over land, Tokugawa and his followers won the decisive battle and reunified Japan. The Tokugawa regime lasted until the Meiji modernization revolution in 1868. Tokugawa rule was based on an idealised Confucian model and was founded on a rigid class system of samurai (warriors), peasants, artisans and merchants (Sorensen 2002:13). Control became regularised when the samurai elite converted from military to administrative officials, collecting taxes in the castle towns. This led to rapid urban growth in the 17th century, and all over Japan castle towns were established.

Tokugawa rulers worried that ongoing urbanisation would lead to a collapse of the established moral order, and suspicion of the potentially disruptive commoner population of the towns (ibid.). This is one of the reasons for the strict order of classes in military-style hierarchy in castle towns and cities. Samurai, commoners and temples had their own residential areas.

Furthermore, cities were self-managing but not autonomous, and the shogunate was careful to ensure that their authority and control were unchallenged.

In 17th century Western Europe, independent self-governing cities underwent an economic and cultural transformation from the feudal era through to industrialisation, with a leading bourgeoisie class that had attained legal position. The self-governing Dutch cities are a profound example of this regulation model. In Japan however, there was no such tradition of self-government, the feudal period was directly plunged into industrialisation and modernisation.

*“The idea that cities could or should have self-governing powers, and the legal frameworks that established local governments as corporate bodies which could own property, manage business, and keep accounts did not exist in the Tokugawa period, and were slow to develop in the modern period. The limited autonomy of the merchant and artisan classes in the cities has had profound long-term effects on the development of Japanese urban governance and planning.”* (Sorensen 2002:22)

Eisenstadt (1996) also underlined that the Japanese city did not become an independent political entity with a distinct civic consciousness. Nevertheless, the city does have a significant degree of economic and cultural freedom that established a culture of self-reliance and self-governance within the centralist system.

#### *State regulation and corporatism*

The history of Japanese socio-cultural institutions has had long-term impacts on the current institutional arrangements. First, it is the basis of Japan's state regulatory model, which comes close to French etatism. Japan combines state regulation with corporatism. The comprehensive and centralised state intervention is functioning, since it is carefully limited and pluralistic, with politically passive unions and societies (Tanimura and Edgington 2001). The Japanese authorities since the Meji and post-war modernisation revolutions are particularly aware of the importance of the market, seen as necessary evil. According to Otto (1999), governments have been aware since the modernisation in the Meji-era that by privatising, companies would work more efficiently and be more successful. The results are economic institutions with an ideology including key elements of free enterprise, and centralistic principles of anti-communist and anti-capitalist state planning (Ortrud 1999:36).

Current institutions are rooted in the 1930s, when attempts were made to catch up industrially and militarily with the west, with characteristics of corporatism. Corporatism can be found in the Japanese structure of government policy co-production with *zaibatsu* and post World War II *keiretsu* business conglomerates. These conglomerates of holdings and later banks, business units, contractors and subcontractors, notably Mitsui, Mitsubishi and Sumitomo, had to invest in the national policy companies in the 1930s, 1970s and 1980s following government regulation to move into Japan's countryside. In return, business conglomerates were protected from competition and granted privileges and subsidies (Otto 1999). Aoki (1997) claims that this successful match between the institutional framework and the private sector in Japan is an unintended lucky fit, and Japan is therein different from other Asian state models of development.

The system of *amakudari* ('descent from heaven', Davis and Ikeno 2002) is another essential element in the Japanese model of corporatism. Former governmental officials obtain

highly attractive postretirement jobs at private or semi-private companies. This improves the government-business relationships with better mutual understanding, but the other side of the coin is that bureaucrats become quasi-agents of business interest groups and become sensitive to manipulation. This is the main reason that the once famous *amakudari* system is making a return.

The keiretsu model of business agglomerates in combination with project leading unremunerative government investments was characteristic for the development process of Kansai International Airport (Bongenaar 2001, see chapter 8.3). The financial losses and the system of bid-rigging and collusion are now the major reasons why public-private partnership in Japan is considered not successful, and actors refrain from implementing a similar model nowadays. The failure of public-private partnership and the failure of government planning of public works, and coastal strips near the airports are major reasons the government privatises or contracts out urban projects. The Chubu International Airport policy experiment is an example of this.

#### *Japan's paradox of centralisation and consensualism*

Dutch consensualism has its historical roots from its created society through hydraulic engineering. The Japanese model of consensualism is based on unanimous rule that is historically rooted in *murabachibu*. In the Japanese countryside, people had to cooperate in order to produce rice, and they sacrificed themselves to avoid exclusion from the community (Davies and Ikeno 2002). Hierarchy was needed in order to equally share rice, and later other commodities.

Japan today is a mixture of centralisation and consensualism. A socio-cultural institutional explanation for this paradox is a culture of conflict avoidance. In the case study interviews, a strong tendency towards conflict avoidance was found. Politicians prefer not to make urban projects the subject of political discussion, and would rather focus on the economic interest. Ministerial bureaucrats tend to avoid direct conflict with the local community, especially after the trauma from the violence in Narita, and because of the precedent set from not using the expropriation tool afterwards.<sup>7</sup> New airports in Japan are not only located on artificial islands in the sea for noise pollution and land cost purposes, but avoiding conflict with land owners and expropriation is of comparable importance.

Because of the conflict-avoiding attitude in urban projects, Japan can be similar to the Netherlands; both can be described as having a depoliticised planning culture. Conflict avoidance is closely related to another social-cultural institution, agreement on decisions in groups. A majority of votes is insufficient to implement policies; all actors have to agree on the proposed plans or should be kept satisfied with some 'pork' in the 'barrel' (Interview Suzuki 2005). In the case study, most actors agree that the costs of construction of this second runway will not be returned; based on economic calculations. However, in terms of political calculation, this investment might be meaningful. Kansai citizens and enterprises, and thus potential voters are satisfied.

#### *Planning culture*

The long-term influence of the urbanisation period in the 17th and 18th century on Japanese planning culture can be distinguished in two manners (Sorensen 2002:39). First, urban traditions are reflected in the traditions of local administration, town building, architecture and patterns of class-based housing zones. China and Japan do have a long urban tradition, but without an

emergence of a bourgeoisie or land-owning urban class (*ibid.*). Urban planning up until today primarily focussed on housing the poor in grid patterns, whereas richer areas could incrementally develop by themselves in a more organic way. Urban development planned by the public sector is therefore today seldom associated with a high-quality urban environment. Second, the urban legacy of the Tokugawa era is a rich material culture, good housing, and high levels of physical well-being. These rather effective urban technologies and forms are according to Sorensen (*ibid.*) the main reason that there was no need to develop a modern urban planning system in Japan.

Because of the well-functioning urban system heritage of the Tokugawa era, the governmental focus was primarily on the industrial catch-up with the western world and military expansion during the Meiji revolution (1868-1912) and afterwards, with a further increase in governmental centralisation (Sorenson 2002). Furthermore, it is the basis for the economic orientation of Japan today. The modernisation in the Meiji revolution and after World War II fits into the urban legacy of urban technologies, when planning was filled with development projects: bridges, tunnels, housing, port and airport construction rather than planning regulation, such as building standards and zoning. These socio-cultural institutions from the past co-determine the current path of development. It not only brings understanding of the economic orientation and loose planning regulation, but also the tendency of centralisation and control, including airport construction and management. The significance of planning is therefore different from the interpretation in the west:

*“In the west, planning meant establishing concrete goals with specific targets, and determining how the target was to be achieved. This principle way of thinking fixes targets in advance, defines rules and actions. (...) The Japanese approach is different; in its rule-oriented thinking, the future cannot simply be extrapolated from factors known here and now. What will be found on arriving at the goal should emerge in good time. The direction to be taken is found by relying on information that reflects changing conditions, leading in return to a constant re-formulation of the rules and actions to be followed. This is why in the Japanese way of thinking; rules of action formulated today to arrive at a goal must not exclude certain other kinds of action. Whereas Western thinking concentrates on a pin-point target, the Japanese idea of a goal is diffuse, broad and lacking in any order that is recognizable in advance.” Pauer (1999a: 86)*

This citation implies that the construction of public works in Japan, as will be discussed in chapter 8, should not be merely seen as setting rational goals and economic profits, but more as the consequence of rule-oriented thinking (top-down decision making by the establishment of influential ministries) combined with risk-taking future investments: maybe at the moment the investment in public works might seem unremunerative, in the future, in good times, the situation can be different.

#### *Integration of policies*

For understanding fragmentation versus integration of policies, control of bureaucracy, planning tradition, political control and stability, and education of bureaucrats are decisive factors. All elements for policy integration in Japan are present: as discussed high control over bureaucracy, a (economic) planning tradition, political stability and bureaucrats with status in society. Japan is well-known for political stability. This focus on stability dates back to the era of the shogun,

samurai and emperor. After World War II political stability was established; with an exception of two years the Liberal Democratic Party ruled the country, either by itself or in coalition with other right-wing conservative parties. Currently, the LDP has formed a coalition with New Komeito.<sup>8</sup> Political parties avoid the left part of the political spectrum, in fear of being turned away as 'left radicals' that violently attacked the construction of Narita airport. Party politics turn out not to be a central issue in Japan. Within the LDP party, there are several factions with different opinions.

Similar to France, national level civil servants have to graduate from the best universities. Not that the university grades are decisive, but the university graduation itself is decisive for future jobs. In particular graduating from law, economics and public administration at the national universities: University of Tokyo, University of Kyoto, and Waseda or private universities like Keio is recommended. Van Wolferen (2004) extensively discusses how university graduates have guaranteed government jobs for life. The background of civil servants is therefore not sector-related, but the common background of these universities is predominantly conservative and formalistic, with a high social status.

Rotation of management functions in the public sector is the major reason that no-one is held responsible for failures (Porter *et.al.* 2000). The unclear defined roles and cooperation of the actors have led to large-scale corruption and non-transparent acting; even World Bank standards of good governance are partly not met in this reflexive political economy of Japan. On the other hand, *amakudari* job rotation improves the public and private actors' understanding of each other's working cultures. MLIT ministry bureaucrats and Tokyo Metropolitan Government officials joined the airport authorities in public-private partnerships to work for a few months on projects, which increases mutual understanding.

Mr. Tada and Mr. Yoshimura (Mitsui-Fudosan, Interview 2004): "*Companies have to make profits, nowadays governments should avoid losses. We have the same goal: making profit is avoiding losses.*"

#### *Civil society groups in Japan*

Japanese, Dutch and Germans thus have more confidence in their bureaucrats than in their politicians, and consider them fully capable of dealing with interest groups. This creates a larger playing field for bureaucrats in planning ambitions and possibilities. Dealing with newcomers in Japan is more formalistic than in the Netherlands or Germany. Important regulations protecting the interests of existing corporations still remain in Japan. Firms obeyed government guidance only because some relative gains (e.g. new orders) could be expected – not out of obedience, argues Ito (1999). In western countries, the misconception that Japanese companies and individuals follow governments or authoritarian rule out of obedience is regularly found. Other groups and newcomers are historically excluded or disadvantaged from the formalist system that is dominated by the *keiretsu*. There are however independent groups such as Toyota, Honda, Panasonic and Nippon Steel that are highly competitive and operate more independently.<sup>9</sup>

#### *Pragmatic policy implementation and enforcement*

Japan's policy implementation and enforcement is similar to the Netherlands – pragmatic. Few cases are brought to public prosecutors or the courts. The interdependence and consensus orientation make actors negotiate and find a solution. For instance, a firm ignoring policy

guidelines risks lower long term profits because of official penalties, fewer contracts and retaliation from rivals (Ito 1999:80). On the other hand, law violation by real estate developers or constructors seldom leads to prosecution. For example, building too high, too dense with too many floors is common practise. Actors are usually able to settle the matter amicably. In the case of building too high in Kunitachi, the Supreme Court rejected neighbours' complaints (Asahi Shimbun 4.1.2006). Law enforcement has recently become more strict since the case of national upheaval in 2006 over manipulated earthquake resistance calculations for hotels (referred to as the Aneha incident, Yomiuri Shimbun 6.5.2005), and prosecution of bid-rigging (Asahi Shimbun 11.11.2005).

## 7.6 Conclusion

To understand the socio-cultural institutions and their dynamics that determine the actors' playing field, Van Waarden's theoretical framework of national regulatory styles of was applied to the case studies. These regulatory styles are based on rule formulation, the nature of the rules, implementation and enforcement as stages (1999, 1999a). The institutional analysis shows how the historic roots of these socio-cultural characteristics co-determine the current institutional arrangements, including airport area planning.

The case studies are examples of coordinated market economies, with corporatism as the main regulation model. The cases vary in degree of corporatism however. Unions and societies have a strong position in policy making in the Netherlands and Germany. The role of corporatism in Japan is not represented by these sector unions, but is represented by large business conglomerates that have a say. These companies are also offered the chance to develop airport islands. Corporatism in the case of Schiphol and Frankfurt show that governments set up their own 'companies', with a large degree of freedom, in particular airport authorities and municipal land supply companies.

The degree of intervention in all cases is moderately active, but also varies in their socio-cultural institutional arrangements. The ambition to introduce new plans is highest in the Netherlands, but limited by the pragmatic implementation and enforcement of rules by bureaucrats at lower levels. The ambition in Germany is reduced by the limited jurisdiction of the federal state; there is no airport strategy at this level. In Japan, it is carefully pluralistic and limited by the awareness of limited government efficiency.

The integration of policies is in decentralised unitary states such as the Netherlands, and centralised countries such as Japan are easier to implement than in the Federal Republic of Germany. These formal rules of the game are dominant over the informal institutions that limit the degree of policy integration. Policy integration is slightly limited by the background of bureaucrats. In Japan this leads to rivalry between ministries, and in the Netherlands every ministry attracts their own type of ministerial civil servants, which colours the ministry in a certain way. In Germany, civil servants often have a common legal background.

All case studies are examples of consensualism. This has historical roots ensuring its survival in Japan and the Netherlands. In airport area planning, all governmental levels play a role and consensualism partly explains the large number of consultation platforms in chapter 6. Consensualism in Japan makes the hierarchy and centralism acceptable for Japanese, since there

is in the end for everyone a share of the pie. It can furthermore be understood by the conflict-avoidance culture; one of the main reasons to construct airports on artificial islands in the sea. Although German socio-cultural institutions are also characterised by consensus, the strong role of German unions have to be considered. German authorities do not hesitate to enforce new rules when necessary, which is the most likely reason for the decrease of cartels in Germany after World War II as a more legalistic policy maintenance style was introduced. In airport area planning, the roles of the different actors are also more clearly defined than in the other cases. And although Japan introduced comparable legislation at the same time, the interpretation of maintenance is different.

Finally, the Netherlands, Japan and to a lesser extent Germany, have a formal attitude towards civil society group newcomers. This can be explained by history. In the Netherlands, society was organised by compartmentalisation of Catholics, Protestants, liberals and socialists. These established interests of equal representation are less open to newcomers. The centralist and hierarchical model of Japan lead to formalism as well. In Germany, legalism and accuracy contribute to formalism, but in general the attitude towards newcomers is more moderate.

## Notes

- 1 Illustrative for the pragmatic policy style are lower numbers of lawyers and prisoners. In 1992, the Netherlands had only 35 lawyers per 100.000 inhabitants, less than Germany (190) and the U.S. (312). The Netherlands had 21 prisoners per 100.000 citizens in 1995, Japan had 44, few compared to the 217 in the United States (Van Waarden 1999).
- 2 According to the Constitution of 1815 article 215, the King was supervisor of all waterworks, including bridges and sluices. These waterworks had to be paid by public treasury. King Willem I interpretation however did not strictly separate this public domain from his private interests (Van der Woud 1998:513).
- 3 The continuation of these projects were only possible by 'robbing Peter to pay Paul' and a lack of financial insight for outsiders. Even if the costs of public works were transparent, Dutch Parliament complained it had no understanding if estimated costs are reasonable or not (*ibid.*).
- 4 Nevertheless, the unequal power and status positions of the social classes remained. German bourgeoisie were not always able to copy the models of the more civilized 19th century military class well, as 20th century history has pointed out (Elias 2003).
- 5 In Frankfurt Rhein-Main for instance, the shire (and later electorate *Kurfürstentum*) Hessen-Kassel in the north, the shire (and later grand duchy) Hessen-Darmstadt in the south, and the shire Nassau (and later Dutch property of King Willem I) in the west dominated the period 1567-1866 (Freund 2002). In the later 19th century, Frankfurt became a free city and the kings of Bavaria and Prussia claimed parts. The elimination of conflicts with Prussia and Habsburgs that followed in the 18th century were the result of Bismarck's last victory, which is the basis of present day Germany.
- 6 Despite these path dependencies, today the Middle Ages – with the exception of hanseatic towns – hardly plays a role in German self-image. The main reason is that German history has been broken down due to the First and Second World Wars, which is in contrast to the continuation of self-governing cities in the Netherlands (Elias 2003:18).
- 7 Evictions in 1970 and 1971 where 3 policemen and 1 anti-airport league supporter were killed, the control tower was destroyed in 1977, and in 1988 the Chiba Prefecture Expropriation Committee chairman was badly injured (NAA 2003).

- 8 The Minister of Land, Infrastructure and Transport is a New Komeito politician and the expectation was that the New Komeito minister would lead to different results than LDP predecessors. However, except for Haneda's airport management, no shift was seen since New Komeito came in power. Local roots of the minister turns out to be a more important factor; the current minister comes from Kansai, so he supports the construction of the second runway at Kansai International Airport (Interview Oki 2004).
- 9 Porter (*et.al.* 2000) argues that these competitive firms and automotive and electronics sectors are carrying the uncompetitive – often protected – sectors in Japan. Particularly relevant is the weak competitiveness of the over-regulated and over-protected aviation and construction sector.



# 8 Financial and economic institutions

## 8.1 Introduction

The analysis of the spatial and economic developments in the airport area and the introduction of the actors involved in the development process, raised questions concerning the rules of the game. Chapter 7 offered the context to understand the institutional varieties amongst the case studies. This and the following chapter continue with an in-depth institutional case study analysis. The addresses research question 2b ‘What are the financial and economic institutions that determine the playing field for the actors involved?’ and 2c: ‘If so, where do inefficient institutions, path-dependent behaviour and institutional lock-ins lead to obstacles in the spatial-economic development of airports as cityports?’

This chapter focuses on the financial and economic institutions in the airport area development process. The financial institutions are the incentives for market investment offered by governments, in particular taxes and subsidies and strategic investments in airport areas in the form of public works. The economic institutions are the conditions motivating market actors to invest in spatial development in cooperation with public actors such as governments. These financial and economic institutional arrangements are not fixed but changing over time in new arrangements. They contribute to the institutional competitiveness of the city-region that is an essential element of economic competitiveness of the airport as a cityport in the city-region (see chapter 2).

Alexander (2001a, 2001b) distinguishes six stages in his generic model of the land development process: (1) land purchase and assembling; (2) financing; (3) land preparation and development; (4) land disposition; (5) construction; and (6) property transfer. Financial and economic institutional analysis in this chapter focuses on these stages of the development process of the airport as a cityport as presented in Figure 8.1. We start with introducing the fiscal structure of each case study and the effects it has in section 8.2, and airports as public works as a generator of private investment as foregoing stages of the land development process (financial institutions). Economic institutions are discussed in sections 8.4-8.7.

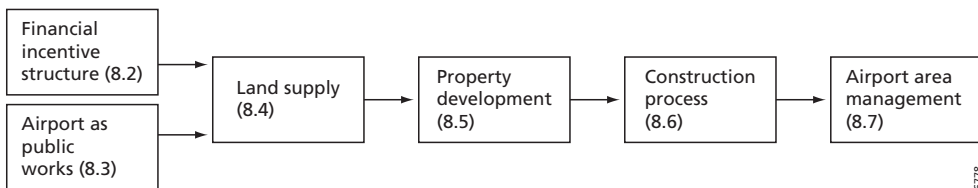


Figure 8.1 Stages of the airport area development process

Section 8.4 includes Alexander's stage of land disposition, discussing supply and demand of land, public and private landownership and coordination problems of the land market. Property development is discussed in terms of quality, density and mixed land use incentives in section 8.5. Institutional arrangements in the construction sectors, in particular illegal collusion, bid-rigging and other tendering problems are discussed in 8.6. Finally, the management of the airport areas is analysed in the perspective of generating a competitive airport area that is part of the entire city-region metropolitan economy (8.7). Therein, the focus is in particular on the airport privatisation and regional monopolies. Conclusions on financial and economic institutions are drawn in 8.8.

## 8.2 Financial institutions: fiscal structure

The distribution and redistribution of taxpayers' money within states – that can partly be applied for public work investments in airports – can range from centralised to decentralised. This section will discuss the consequences of centralised and decentralised fiscal structures first in terms of theory, and then in terms of the effects of these financial institutional arrangements on the case studies.

### *Theories on (de)centralisation of fiscal structures*

Terhorst and Van der Ven (1997) see the structure of the tax system as the backbone of society, where an optimum balance between centralized and decentralized can only exist in theory. Centralisation as well as decentralisation has advantages and disadvantages and the best outcome is dependent upon the particular local situation. Major advantages of fiscal centralisation are macro-economic growth and equal redistribution of taxes. The main advantage of decentralisation is that the local level is the most suitable and most informed level for allocation of public services. In their comparison of the centralised fiscal structure in Amsterdam and the decentralised fiscal structure in Brussels, Terhorst and Van der Ven (*ibid.*) concluded that the fiscal and territorial system and not the planning system, is the main reason for the structured and compact development of Amsterdam compared to sprawl in Brussels. The Brussels model shows the disadvantages of fiscal decentralisation in terms of tax competition, tax export and disharmony in the sprawled spatial development.

On the other hand one can argue that in the era of globalizing city-regions, a more decentralised fiscal structure can provide the city-region instruments and more possibilities to put in place the right incentives in order to attract investors in area development. Airport areas can be funded as national projects in order to generate economic and spatial developments in backward areas, but can on the other hand also provide tax revenues for redistribution elsewhere.

Peterson (1981) goes beyond the centralisation-decentralisation dilemma by distinguishing governmental spending by its three functions in the policy arenas: allocation, redistribution, and development. Allocation of public services for citizens is the function that local governments can perform best, because decentralisation allows a closer match between supply and demand of public services. Redistribution, more specifically the redistribution of tax income for social benefits, should, according to Peterson, not be a heavy burden on the local government's income structure. The more a local community engages in redistribution, the more the marginal benefit/

tax ratio for the average taxpayer declines, and the more the local economy suffers. Minimum standards of living should be guaranteed by income redistribution.

Developmental policies – e.g. airports as public works that is central issue of debate in 8.3 – should according to this line of reasoning be a shared responsibility of all levels of government. In the case of economic downturns, national governments should apply fiscal and monetary instruments; a local government applying these instruments will see any positive effects of its actions disappear into the larger environment. This is referred later as the negative consequences of regional tax competition. Other developmental policies may have more specific local consequences, and in these cases local governments are able to commit their own resources. Peterson mentions highway construction and utility services distribution but airports as public works can be included here. Although for cities the economic need and ripple effect of development projects is obvious, problems might raise in the suburbs. In surrounding towns economic and status interests might bifurcate and communities split up in ‘pro-growth’ and ‘anti-growth’ factions:

*“While some express concern for the economic base of the community, others argue that the community should hold out against urbanisation or attempt to survive as a residential enclave apart from the centres of commercial and industrial activity” (Peterson 1981:149).*

#### *Fiscal structures in the case of the Randstad*

The Randstad does not have a long history of tax centralisation and fiscal redistribution. Even before the era of the seven United Provinces (1581-1795), independent cities had their own local taxes. The relatively large surface of Amsterdam and a slow population increase are according to Terhorst and Van der Ven (1997) the main historical reasons that in the Randstad no tax competition exists. The abolishment of local taxes and a self-fulfilling prophecy of central financing of the social welfare state, including national public works construction in the 19th century (see chapter 7), local provision structures and fiscal centralisation in the 20th century led to more homogenous spaces (*ibid.*).

The problem of fiscal centralisation is that local governments can hardly influence the income and expenses flows and therefore cannot be responsible for creating a profile in international competition (WRR 1990:31). Therefore, the Government Scientific Advisory Council (WRR) argued for making the local level in the Netherlands, in particular the major cities, more sensitive for their revenue structure. The government attitude had to change from a ‘receiving’ culture to a more responsive governmental culture. The ‘golden financial strings’ that turned the cities into puppets directed by the national government were to be cut, in particular in the case of social housing corporations. Cities should become more responsible for attracting their own tax revenues (WRR 1990). Local taxes rose and financial independence increased slightly in the 1990s.

However, financial dependence on local taxes is still comparatively low; own local income is currently near eighteen percent. The largest source of income for municipalities are specific grants (44%, for instance for urban renewal), a source of income that is diminishing (Korthals Altes 2002). Extra revenues created by the municipal land supply system compensate this (see section 8.4). The third source of income is general grants from the Municipal Fund, based on size and income of the municipalities (38%). As Korthals Altes argues, paradoxically, it is the

dependence on this general grant, which local governments are free to decide how to spend, that makes Dutch municipalities relatively independent (*ibid.*). Towns and cities do not have to compete on taxes on the one hand, but also do not have to lobby for most of their income at the regional or national government levels. Interviews in the Schiphol area confirm that taxes are not a reason for entrepreneurs to relocate businesses within the airport area or further into the Randstad city-region. Airport revenues are no direct income tax base for the municipalities near the airport, but rising land prices are. These problems will be further analysed in 8.4 and 8.5.

#### *Fiscal structures in Tokyo Metropolitan Area*

The fiscal structure in Japan is a different example of centralisation. Tax redistribution on the national level is a major issue in large countries with remote areas as Japan and Germany, more than in the Netherlands. In terms of fiscal allocation, the national government has a strong role of distributing taxes the poorest and richest prefectures (Hill and Fujita 2000). As a result, some poorer prefectures are after equalisation better off than other richer prefectures.<sup>1</sup> Currently, only the city-regions of Tokyo Metropolitan Area, Aichi-Nagoya, Shizuoka, Osaka, Hyogo-Kobe and Kyoto pay for the tax grants in 38 other prefectures (Ogawa 2002:198). Due to the economic situation in the Kansai area, particularly the problematic financial status of Osaka, it is currently the National Capital Region that is the net-payer for all other regions. The net-payer problem might affect the continuous support amongst the regions in Japan. Hill and Fujita (2000) concluded that despite polarisation caused by globalisation, Japan's egalitarian system does not show the typical changes like inequality among local governments, decline in state spending and privatisation of public activities.

More recently however there are signs of gradual change of tax allocation caused by rapid population ageing and increasing public debts in Japan. For instance, the Koizumi administration cut MLIT's budget by 3% each year, leaving less money available for employment-generating public works in the Japanese countryside. Although MLIT bureaucrats oppose the budget cuts proposed by the Ministry of Finance and Cabinet Office, bureaucrats combine budget reduction with a decentralisation policy (to be discussed in chapter 9). This decentralisation of policies and a budget stop, in the context of the municipalities that have a mindset of dependency created since the Tokugawa period (1600-1868), makes the situation for local governments hard to manage.

Mr. Benes (American Chamber of Commerce Japan): *"The current attitude is: 'OK, if you want decentralisation, we will decrease our subsidies and leave it up to you'. That is like a child never taught to walk suddenly has to walk by itself."*

An additional problem is that cities are able to double their local taxes, but hesitate to do so in order to avoid losing local competitiveness to tax competitors. It creates a lock-in situation for fiscal institutional arrangements on the local level that can be unlocked by the first municipality willing to raise local taxes. This means that Japanese cities and city-regions are openly competing despite fiscal centralisation. They do not compete on taxes, but on public works that might generate private economic activities in the near future (see section 8.3).

In contrast to the Netherlands and despite fiscal centralisation, Japanese airport towns and cities directly benefit from airport taxes. The City of Narita is heavily dependent on airport-related tax

revenues as source of income, rising from 16% in 1978 to 40% in 1999 (NAA 2000). National tax redistribution takes the advantages of an airport into account and lower grants are given from central to the local government. Although all towns surrounding Narita airport see an increase of airport revenues, their airport-related income is very limited, ranging between one and five percent share of total tax income (*ibid.*). These numbers are not known for Haneda and because of limited economic spin-off (see chapter 4) probably negligible for Ota and Kawasaki.

#### *Fiscal structures in Frankfurt Rhein-Main*

The assumption in the Frankfurt Rhein-Main case is that German tax decentralisation increases the possibilities of regional and local governments in the city-region to provide incentives for spatial and economic developments. Particularly within the globalizing economy, bottom-up opportunities to develop and promote the region are more adequate, and subsidy dependence on the federal governmental levels is limited. The central question asked was: are the financial instruments of the city and the region adequate for supporting spatial-economic activities in Frankfurt Rhein-Main? Actors agreed on the insufficient functioning of these instruments, but mainly disagree on what direction to choose for solving the urgent problem. The two main problems of financial institutional arrangements are ineffective fiscal redistribution between states and within states (*Finanzausgleich*) and corporate tax competition (*Gewerbesteuer*).

First, tax redistribution is a problematic financial institutional arrangement. Tax redistribution can be found on the level of the states (*Länderfinanzausgleich*) and is primarily focused on levelling down the income inequalities between the states. Furthermore tax redistribution is done on the level of municipalities (*Kommunale Finanzausgleich*) in order to make municipalities able to provide their public services. This fiscal redistribution on the federal level is considerable; Hessen for instance pays annually €371 per inhabitant in 1999, roughly the same amount of money that Berlin receives (Freund 2002). Actors agree on the need of a distribution for social reasons, however the system is under pressure. The aim of the *Länderfinanzausgleich* is not to offer long-term subsidies, but incentives to change economic structures (*ibid.*). Only Bayern changed from a net-receiver to a net-payer, joining net payers Baden-Württemberg, Hessen, Nordrhein-Westfalen and Hamburg. The redoubling effect of fiscal redistribution is a second objection. Berlin, for instance, can use the financial support it receives to attract businesses from competing cities as Hamburg, München and Frankfurt by offering various advantages to managers.<sup>2</sup>

*Kommunale Finanzausgleich* within Hessen state provides a more indirect redistribution from southern communities to the north. Based on the economic structure, rich counties contribute to the poorer ones. In Hessen, 36% of the citizens live in Southern-Hessen and pay 48% of the taxes. In return, Kassel in Northern Hessen has, at 10%, the highest percentage of social welfare receivers in former Western Germany. This leads to increasing tensions within Hessen as a result (Interview Müller 2003).

Corporate tax is the second major problematic financial institutional arrangement in Frankfurt Rhein-Main. The discussion on corporate tax can be seen as a discussion of *Finanzausgleich* at the local level since the largest portion of the city's revenue is *Gewerbesteuer*, a local corporate tax. *Gewerbesteuer* is more important for cities with have industrial activities, whereas

*Einkommensteuer* (income tax for residents) is more important for villages in the Rhein-Main city-region that are predominately focused on housing (Interview Schultheiss 2003).

Frankfurt's expenses for social welfare and cultural facilities are higher than other towns and villages in the region, and indirectly this leads to a higher tax rate in the urban area. Other municipalities in Rhein-Main city-region however have lower costs and compete with Frankfurt on lower corporate tax. An often-made comparison is the lower *Gewerbesteuer-hebesatz* of 300 in Eschborn compared to 495 in Frankfurt. Not only Eschborn, but also other towns in the ring around Frankfurt compete on corporate tax, giving the nickname *Speckgürtel* to the Rhein-Main region. Since surrounding communities cherrypick, Frankfurt bases its income structure on the corporate airport tax.

Figure 8.2 shows that 9/11 has not only affected airport and airlines, but also the city of Frankfurt. In 2003, Frankfurt received €900 million on corporate tax, a decrease of almost a third compared to the fiscal peak in 2000. In the interviews, in particular urban planners and the city of Frankfurt consider the corporate tax as an inadequate financial incentive for regional economic development under the current conditions. The main argument is that as a result of corporate tax competition, the green belt between Frankfurt and surrounding towns becomes rapidly built-up, which has a negative impact on the quality and variation of the polycentric region. Tax-politics become urban politics here, since financial institutions directly affect urban development. The *Speckgürtel* communities are free-riders of the services that Frankfurt offers for the region.

On the other hand certain arguments made by economists and town representatives in the region focus on the effects of corporate tax as an important incentive for regional economic development. First, there is a group of employers' organisations that joined the discussion in order to achieve abolishment of *Gewerbesteuer* in order to decrease general tax pressure or a tax shift from entrepreneurs to citizens in general. *Wirtschaftsinitiative* and the Chamber of Commerce (IHK) want to abolish or shift local corporate tax, since it is a unique German phenomenon that

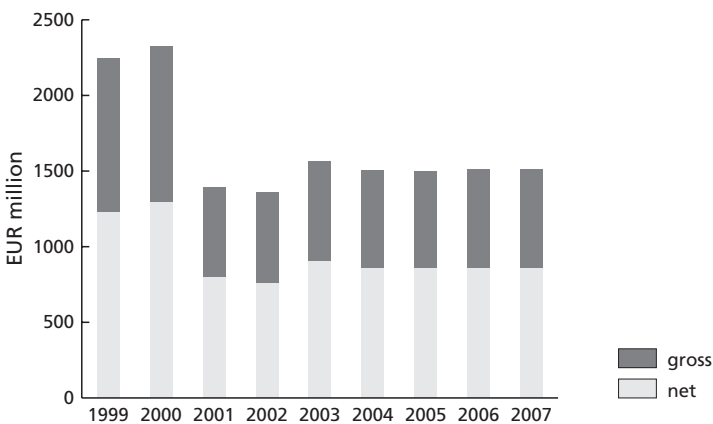


Figure 8.2 Corporate tax revenues City of Frankfurt (Source: Frankfurter Rundschau 25.II.2003)

cannot be found elsewhere in Europe and is a tax burden for entrepreneurs. As an alternative, IHK Hanau proposes a rise of income tax instead.

Another group of actors considers the discussion as an exaggeration of the problems. In case corporate tax laws are not changed, market economists expect a natural balance in the region (Interview Weiss 2003). It is normal that the centre is more expensive than the periphery, as it is a more attractive location for business settlement.

Mr. Schien, Neu-Isenburg: *“Almost all location factors are more important than the corporate tax – social-economic structure, image, telephone number and accessibility – only specific sectors focus on corporate tax. But we don’t want these low-quality branches in our town anyway.”*

Mr. Buchholz, Frankfurt: *“At a business meeting managers were complaining about the corporate tax. Someone proposed to read the list of actual corporate taxpayers, with the cameras running. Then, suddenly, the meeting room was silent.”*

A third major argument that opposes the problems of *Gewerbesteuer* is tax competition as an incentive for economic performance and the opportunity for towns and cities to gain an own economic profile and image. The municipalities are not the same, but vary in hierarchy and economic structure. As chapter 2 has shown, these profiles have path-dependent development with a specific institutional setting and historical roots. The national and international corporations are able and willing to pay for the centre of Frankfurt. Bordering towns focus on the back offices. Taunus villages attract smaller business services, and communities near the airport specialise in distribution and manufacturing.

The fiscal institutional arrangements in Frankfurt Rhein-Main show clear inefficiencies, in particular in terms of urban development, but actors disagree on the urgency of the problem of corporate tax. The regional towns are free-riders and the decentralised tax structure offers incentives for the regional economy, with polycentric and unique development of towns and cities. This fits the profile of competing towns that has historical roots. It is uncertain what a new institutional arrangement of fiscal redistribution will offer to Frankfurt and Rhein-Main. The focus on local taxes and responsible accounting dominate the regional debates. The risk is a lack of wider political debate without considering other important elements in the regional cooperation (Salet 1990). There is a growing sense of urgency in Frankfurt Rhein-Main, wherein the lack of regional cooperation, not tax competition, is considered a problem in need of an innovative institutional solution that is acceptable for the entire region. This kind of problem is also a problem on the suitable level of the city-region. Because of the states involved the problem of corporate tax is a problem that mainly needs to be discussed on the federal level.

In sum, the case studies’ fiscal structures show large differences. In the Randstad, local governments are relatively independent in income and especially in spending. They cannot directly benefit from the airport in terms of local tax, but benefit in terms of increasing land prices. In Tokyo, fiscal centralisation makes local communities puppets on a string competing on public works. However, in the case of airports local communities can directly benefit from airport tax. Frankfurt Rhein-Main is characterised by direct tax competition. The airport is an

important source of revenues for Frankfurt, while Rhein-Main attracts more movable business with lower taxes.

### 8.3 Financial institutions: airports as public works

The financial institutional arrangements for the continuous spatial-economic development of the city-region fall into two categories: inducements to private investors and direct public investments. The former category was discussed in 8.2 so here we focus on direct public investments. The business community see these investments as vital to regional competitiveness, as chapter 3 showed, but it is in general impossible to extract profits directly. Therefore government's financial institutions are required to execute public works like waterworks, harbours, rail and road infrastructure and airports, and can contribute to cityport development in the city-region.

The specific characteristics of financial institutional arrangements in the case of airports as public works need to be stressed from the effects these investments have. This includes the benefits and cost relationship; not merely in terms of budgets, but in a wider context, the contribution to the competitiveness of the city-region. First, a theoretical exploration will show that this is a central issue of current academic debate. Then, the theoretical approach of the airport as a public work institutional arrangement is applied to the case studies.

#### *Costs and benefits of airports as public works*

Despite recent attention, the issue of the extent to which public works contribute to the regional competitiveness and what cost level would make these worth public investment, has a long history. The main reason is that costs tend to overrun continuously and are underestimated, while revenues tend to be overestimated.

In 1975, Peter Self criticized his planning colleagues that determine the policy decision-making process by cost-benefit analysis and labelled them 'econocrats.' Applied cost-benefit analysis is hard to verify and assumptions and calculation methods are arguable. Self criticized the decision makers for instance in the case of building London's third airport, that was later considered a 'planning disaster' by Peter Hall (1980).

Flyvbjerg *et.al.* (2003) have similar critiques on large public works. Flyvbjerg (*ibid.*) made an international comparison of costs and revenues of 258 infrastructure projects as tunnels, bridges and airports. In 90 percent of the cases, infrastructure projects lead to cost overruns and overestimation of economic spin-offs for the region, they concluded. The actors involved have often underestimated costs deliberately and politically motivated behaviour was supported by lack of transparency, Flyvbjerg argued. The conclusions of Self and Flyvbjerg emphasise inefficient financial institutional arrangements in the case of public works. Once the decision is taken to construct the bridge, tunnel or port, there is no way back and a path-dependent route is taken. Changing or stopping the current path is almost impossible since there have been heavy investments in research and construction preparation, or even construction itself.

Altshuler and Luberoff (2003) give an overview of other project cost overruns and income overestimation studies. These American studies also underline that non-technical errors, honest mistakes and inadequate methods (e.g. cost-benefit analysis) are the main reasons. In 80 percent of the cases, unforeseen mitigation costs, decisions to use new technologies, and perverse



incentives built into public financing systems were also to blame. Forecasts had to be “fudged” in order to be dramatic enough to gain federal support, or were kept low deliberately to keep pressure on project managers. Therefore, consistent mis-estimation is for Altshuler and Luberoff (2003) an example of the ‘tragedy of the commons’: short term success of constructed works lead to long-term undermining of public confidence in government.

It should be noted however, that the apparent cost-overruns can become investments with increasing returns on the longer run. Furthermore the question is, whether airports are representative examples of these public works that run out of hand. Although their construction costs are considerable, they can also generate high direct revenues, and create jobs in the wider city-region, as chapter 4 has shown. Therefore now the case studies’ financial institutional arrangements are explored.

#### *Schiphol as public work*

Flyvbjerg, Bruzelius and Rothengatter’s *Mega projects at risk* (2003) exerted great influence on the temporarily parliamentary commission on infrastructure in the Netherlands. This commission chaired by Mr. Duivesteijn (2005) was installed after major cost-overruns and disappointments in expected revenues in the case of the high speed train connection Amsterdam-Brussels (HSL-Zuid) and the freighter train connection Rotterdam-Ruhr area. Similar problems were expected for the high-speed train connections to the north (Groningen, the Zuiderzeelijn) and to the east (Germany, HSL-Oost). Partly because of the Commission’s report, Dutch parliament tends to cancel or postpone the latter two projects and look for cheaper alternatives.

The conclusions of the report are according to Duivesteijn also applicable to the airport planning process. According to him and similar to the railway projects, there is in the Schiphol case, no clear parliamentary go/no-go moment for new runway construction (Elsevier 2005). The fact that there is a runway land use reservation however does not mean that a sixth runway can be constructed at opportune moments; aviation law has to be changed for that (see chapter 9). Although informal institutions are at work to create support for airport expansion, still formal institutions include a political decision moment.

Second, according to Duivesteijn in the case of new runways and terminals there is a lack of continued information from the Ministry of Transport to all actors involved. Flyvbjerg (*et. al.* 2003) calls this to the lack of involvement and exclusion of stakeholders from the core of the development coalition. This exclusion of other stakeholders that are not part of the development coalition is a returning theme in debates between parliament and government, as we saw in chapter 6.6. The question is, whether the parliament needs all information or the most relevant information considering the public work in progress.

The Dutch national government has invested in the expansion and relocation of the airport to its current location in the 1960s. These investments have been recovered by the shareholder profits of the public airport owners. However, there have not been substantial governmental investments in the runways or the terminals in more recent decades (Ministry of Transport and Water Management 2005). The Schiphol Group invests in its airport infrastructure and contributes to the construction of national motorways near the airport.<sup>3</sup> With the high profits of the airport, the main reason for this is its institutional position as a company with public duties (Interview Mast and Schaafsma 2005). Schiphol can therefore not be seen as a public work with exceptional cost overruns; it is profitable business, not a public investment disaster. It fulfils

Flyvbjerg's conditions of successful projects: serious infrastructure capacity and a combination of infrastructure investments plus making use of the potential in the area surrounding the airport (Flyvbjerg *et.al.* 2003).

This however does not imply that there are no cost overruns in the Schiphol area. Former SADC manager Trommels for instance, acknowledges that cost overruns for e.g. local infrastructure occasionally occurred, and that this mainly for two reasons. First, forecasts have to fit in the accountings of the Ministry of Transport and Water. Second, increasing costs due to interest rates are not included (Interview Trommels 2006). Both arguments are in line with the reasons for cost overruns Altshuler and Luberoff (2003) pointed out earlier.

#### *Frankfurt International Airport as public work*

The financial institutional arrangement of Frankfurt airport is very similar to the experience of Schiphol. Both airports are dominant for the economy and infrastructure in the region and generate sufficient revenues to pay the necessary investment and expansion. The historical development is similar in terms of airport expansion paid by the airport itself, a decrease of public investments, and income revenues for the public shareholders of the airport. In Germany, the share of airport companies in airport investments increased from 66 to 83% in 1993-1995, mainly paid by landing slots and ground transportation revenues (Dehn *et.al.* 1998). In the same period, Hessen limited its share in airport investment from 21% to 9%. The federal level even almost wiped out its contributions, from 5% to 1% between 1993 and 1995. The local level limited its participation from 7% to 3% in the same period.

The most recent large-scale expansion of airport terminal and buildings is however financed by a minority stock transfer from the public sector to the private sector. The limited budget invested by governments on the airport, does not accord to the picture of excessive cost-overruns of public works. The main reason for profitable airport infrastructure at Schiphol and Frankfurt is the continuous growth at the current location. In the case of large-scale relocation, cost come into question, as in the case of airports in Japan.

#### *Japanese airports as public works*

In contrast to Schiphol and Frankfurt, airports and associated infrastructure in Japan are major governmental investments. The Ministry of Land, Infrastructure and Transport plays an important role in airport construction costs and has a dominant share in the airport stocks and financing. According to Japanese Airport Development Law, in case all ministerial directives are implemented:

- MLIT pays all construction costs of international airports;
- MLIT pays 60 to 70% of the construction costs of regional airports; and
- MLIT pays 50% of construction costs of local airports.<sup>4</sup>

Law sets the contribution of investments in airports as national public works. The final governmental costs and income structure of the airport varies from case to case. Asia's largest airport, Haneda in Tokyo, is considered a cash cow for the national government. The airport taxes are necessary to continue MLIT investment in Haneda airport capacity. Due to the chosen financial arrangement without separate budgets it is unclear how much is invested in Haneda. Since it is an airport in the bay of Tokyo with current runway expansion on a floating runway, these costs are considered considerable. Haneda construction has cost €10.4 billion (McGormack

1996). Due to Narita's runway problems, until 1991 US\$1 billion was spend and has hardly led to increase of airport capacity (De Neufville 1991:8).

Kansai airport is the leader of cumulative loss projects in Japan (see Table 8.1, Bongenaar 2001). Until 1999, Kansai International Airport Co. has made €1,429 million loss. The costs of the smaller Centrair airport in Nagoya are €4550 million in 2004 prices, 20% lower than the expected costs (Interview Ueda and Tsuchiya 2004). However, similar as in Kansai, the coastal Rinku towns have additional costs that discourage investors and are mainly public investments. Earning back the €2270 billion costs of the recently opened Kobe airport island will be a major headache for the Kobe local government (Asahi Shimbun 30.1.2006).

Tokyo's most loss making public work projects are three projects that are also part of the waterfront islands development: Waterfront (€325 million cumulative loss in 1999, exchange rates 1999, and see Figure 8.3), Takeshiba (€205 million) and Teleport Centre (€190 million; Bongenaar 2001). Further examples of excessive cost for public works are TransBay Highway (€10.3 billion), Yokohama Minato Mirai 21 (over €18 billion) and Makuhari New City. Haneda and Tokyo Waterfront are the main projects and have caused a reduction of the bay size of one fifth compared to 1868 (McGormack 1996).

The practice of inefficient high spending of Japanese governments on public works, including airports, is rooted in the centralisation of financial institutional arrangements, where most investments are done and regulated at the national level. Although national budget restraint is a problem that turns out to be a solution – or a 'blessing in disguise' – the current smaller budgets are not applied more efficient (Interview Benes 2004). Local governments know that some planned public works are useless but are trapped in a dependency mindset, realize that refusing national government investments will lead to no investments in their town or city at all.

The failures and deficits of investments in public works in the past have forced Japan to change the financing system into more independent public bodies with own responsibilities. More independent than before, the Development Bank of Japan decides upon granting loans based on future profitability, with less government pressure to provide these loans.<sup>5</sup> One other way of making financing PPP's more transparent and accountable, is the Private Finance

*Table 8.1* Cumulative loss of public private ventures in Japan (fiscal year 1999)

Rank	Company	Location	Loss (€ million)
1	Kansai International Airport Co.	Osaka	1429
2	Phoenix Resort Ltd.	Miyazaki	1108
3	Asia and Pacific Trade Center	Osaka	344
4	Tokyo Waterfront Development	Tokyo	325
5	World Trade Center Osaka Inc.	Osaka	245
6	Kitakyushu Urban Monorail Co.	Fukuoka	240
7	Tokyo Bay Takeshiba Reg.Dev.Co.	Tokyo	205
8	Kobe New Transit Co.	Kobe	195
9	Tokyo Teleport Center Inc.	Tokyo	190
10	Tokyo Fashion Town Co.	Tokyo	176

Source: Bongenaar (2001)

Initiative (PFI). The Private Finance Initiative (PFI) is a British idea that alleviates the long lasting burden on public budgets and transfers parts of the public sector (risks) to the private sector. An essential condition is a level playing field with competition for concession rights – a situation that did not exist in Japan. Recent studies in the UK show that despite start-up problems, PFI is working.<sup>6</sup> In Japan-style PFI, the initiative is not only introduced to cut costs for local governments, but also to change the way facilities are managed.

In summary, Schiphol and Frankfurt are profitable airports that can afford to pay for necessary infrastructure investment by themselves, since they have not been relocated for decades. In the case of 'airport islands' in Japan, however, cost can easily overrun and artificial islands are in the top ranking of loss-making projects. The main reasons are as theory suggested, Japan's ambition to use new and expensive technologies, like artificial islands, and perverse incentives built into public financing systems, in particular a subsidy dependency mindset of local governments. The Japanese airports are the best examples to underline the theory of 'mega-projects at risk.' Once a decision is taken to construct the airport, there is no point of return or alternative path, despite the higher costs and lower revenues. This can even lead to the decision to currently construct an unnecessary second runway for Kansai International Airport, since the national government already intended to build this from the beginning. Although the paths selected in current public works in Japan cannot be changed, a puzzling process of institutional innovations is taking place, as the cases of DBJ loans and PFI financing have shown.

#### **8.4 Economic institutions: land market**

The first stage of the final development process of airport areas is obtaining the land. Our focus is in particular on the specific situation in the Randstad and in Japanese airport areas since the role of public actors in the land market is larger and more active than in Frankfurt Rhein-Main. The latter can however offer an alternative, more market-driven, land market model. The land market will be discussed in terms of land supply, coordination problems between municipalities and financial risks.

We can identify two forms of land ownership: full ownership and emphyteusis (a contract granting possession of land for long period on certain conditions, a kind of long-term lease different from the Anglo-Saxon tradition, close to the *erfpacht* system in the Netherlands). In the case studies both ownership and emphyteusis are common, depending on the municipalities and locations involved. Airport lands are commonly owned on leasehold since the governments do not want to lose control over the public airport infrastructure managed by the airport authorities. Land market provision in the airport vicinity however varies from case to case.

The land supply in the Netherlands is unique in comparison to other countries. Dutch municipalities own most of the land for industrial and office locations, and commercial developers own only a small share of the land (Segeren, Needham & Groen 2005). Most of the land in the Schiphol area vicinity is owned by the municipalities of Haarlemmermeer, Amstelveen, Aalsmeer and Uithoorn, private landowners, Schiphol and their common land pool SADC (Nyfer 1999). Nevertheless, also commercial property developers are taking land positions. Chipshol and Smits

Bouwbedrijven were one of the first to buy farmland near the airport since they expected future urban development earlier than municipalities.

Amsterdam and Schiphol use emphyteusis arrangements for land supply, but Haarlemmermeer sells the land to the open market. Although emphyteusis would make possible a permanent public financial incentive to increase the value and quality of land, in practise there are few differences since the leaseholder is buying off leaseholds for 45 years at Schiphol, with a leasehold adjustment clause every 15 to 20 years. The criticism is that with both the land sale and the emphyteusis there is no economic incentive to maintain a high quality in the business parks or industrial sites after areas are developed; municipalities tend to create new business parks elsewhere. Schiphol however, implements park management since there is scarcity of land and clear economic interests at stake for all actors involved.

In the case of Schiphol, emphyteusis is understandable since the airport needs elbow-room for reservations on future airport development lands. ProLogis therefore leases the land at Schiphol, develops and manages asset, mainly warehouses. The interviewed actors in the Schiphol case study are satisfied with these emphyteusis systems of land that airports.

Frankfurt's airport territory has a similar liberal emphyteusis system as Amsterdam and Schiphol (Interview Peters 2005). The situation in the airport vicinity is unique because of the land formerly owned by the American military. In the case of the southeastern airport territory and the Gateway Gardens redevelopment, American air force returned the land to the city of Frankfurt. Therefore, Frankfurt supplies these lands. However, most of the land in Rhein-Main region is private ownership. In the institutional analysis, no serious problematic institutional arrangements in Frankfurt Rhein-Main land supply systems came to fore.

In Japan, land ownership has a specific cultural meaning and leasehold systems are not common. Land ownership is not merely an economic attribute; it has deep cultural roots based on succession rights (Sorenson 2002). Therefore, the Japanese farmers in particular are not willing to sell their land, not even for a high price. This is one of the main reasons for the problematic expropriation of farmers near Narita airport, and is discussed as legal institution in chapter 9. The island of Haneda is owned and developed by MLIT and therefore has no specific institutional characteristics in land supply that need to be discussed.

Innovations in institutionalised land supply practises are found in the case of the land strip in coastal Rinku Town near Kansai and Chubu International Airports. The inability to sell the expensive reclaimed land in the Rinku town in Kansai for almost a decade forced the prefectural government to change the usual economic institutional arrangements. Since buying the expansive reclaimed lands in a market with volatile and sinking land prices remained unattractive for the real estate developers and end-users, Osaka prefecture decided to supply the land in leasehold for ten to fifteen years (Interview Takayama, Futatsumata and Tenda 2004). This enlarged the institutional playing field with the ability to change the locked-in institutional rules that would have resulted in devastating loses. This led to a slow revival of interest for real estate development in Kansai's Rinku town.

This institutional innovation might be applied later in similar problematic areas in Chubu's Rinku town and the airport island of Kobe, since also in these cases the government provides the land. The costs are too high and the required repay of investment led to high land prices. These prices are too high for either hotels, offices, warehouses or other industrial activities and make

it increasingly difficult for the land supplier to find interested developers. The result is deserted land plots ready for development and even abandoned buildings (see Van Wijk 2005). The airport authority of Centrair is however, in contrast to their colleagues in Kansai, able to supply land on the airport island for willing project developers and investors, since they are specialised in land-and property development.

Although in most countries the land market is a private actors' market, Dutch municipalities consider it their duty to supply sufficient amounts of land for the market. This is not a legal task, but an institutionalised common practise (Segeren, Needham & Groen 2005). This interpretation of the public task of municipalities fits in a broader context of active involvement in area development: active land policies, participation in land supply companies and agreements with private land owners in private law besides the land use plans and other public law instruments (Korthals Altes 2006). The active role in land supply can furthermore be understood by its financial importance for municipalities. Most municipalities have their own profit-oriented land agency, whose activity is a major source of income (Korthals Altes 2002).<sup>7</sup>

Segeren, Needham & Groen (2005) argue that this active role of Dutch municipalities in land supply can lead to substantial financial risks (1), imbalance in the land market (2), lower land prices (3) and extensive single land use (4). The consequences of the institutional system in terms of land use are discussed in a broader context in section 8.5; here we discuss the first three possible effects.

First, the active role in land supply in Schiphol is considered in the interviews as a financial risk for local governments. Mr. Migchelbrink of NIB Capital (Interview 2005) considers the financial risks for office and industrial land supply higher than risks in real estate development, especially since the development time span is longer than in England for example. In the end of the 1980s, landowners and developers started being interested in the land near the airport and local governments, Schiphol and NIB Capital founded the SADC land pool in order to plan and coordinate land use near the airport.<sup>8</sup> The public financial risks of land supply for Haarlemmermeer are however not considered as problematic due to the attractiveness of the location, rapid economic growth, the size and experience of Amsterdam and the backing of a market-oriented approach of NIB Capital and Schiphol. The chosen model was successful in financial and economic terms for all actors involved in the region and all public and private actors are satisfied with the coordinating and communicating role of SADC.

Second and third, risks of public land supply, the involvement of municipalities might lead to a relative oversupply of industrial land in the land market and lower land prices, concluded Segeren (*et.al.* 2005). The land supply model of towns and cities is in close cooperation with VROM, Economic Affairs and the Chambers of Commerce that overestimate the demand in order to provide the right number of office and industrial locations in the Randstad city-region in the end. Dutch municipalities do not merely focus on profits, the supply of land in the market is higher than in the case of private land owners and developers would dominate the market causing a relative oversupply of land for industrial development as Segeren *et.al.* argue (2005:113). Korthals Altes (2006) asks whether this actually is the case, since even in the Randstad land costs are just a small fraction of the actual costs of the build up area. This situation is very different from airport area development in Japan, where land costs force not only offices, but also distribution

and warehouses to build four stories at least, in contrast to the preferred one or two stories in the Schiphol airport vicinity (ProLogis interviews Tanizami and Kumuda 2004, and Peters 2005).

In the Schiphol case study, there was no continuous oversupply of land available for development in the way that Segeren, Needham and Groen argue. The public supply of land nevertheless does affect the market balance of available land and land prices. The office locations turned out to be more attractive than industrial land, with higher land prices, more prestige and expected economic spin-off. However, since 2003 the province Noord-Holland has cancelled all new planned office locations in the region due to severe vacancy of offices and the traffic congestion these office locations create. Office rents dropped dramatically but the municipality keeps land prices up to avoid more office development.

The market of industrial locations shows a different picture than the office market. There is in particular scarcity of locations that allow more hindrance to the local environment. Despite the economic recession and the effects of 9/11 on aviation, the distribution sector continued to grow steady and rapidly. Due to this growth, prices for industrial sites keep rising, but are still below offices and housing market prices. Because of the higher land revenues for offices and houses, and the more prestigious urban profile, planners and local governments prefer offices rather than manufacturing and distribution.. This is a major reason for the scarcity of industrial sites and not only found in Schiphol, but also in Narita.<sup>9</sup> In both cases of industrial and office market, there is a continuous imbalance between demand and supply, without a smooth development pattern. This situation is less apparent in Frankfurt, with the more distinct differentiation of locations in the Rhein-Main region due to market pressures.

In sum, a variety of land supply systems and public and private land owning are common in the case studies. These economic institutional arrangements were no serious issue of debate in Frankfurt Rhein-Main. In the Netherlands, emphyteusis and full ownership coexist. In general, actors in area development do not make use of all opportunities both systems offer and municipalities even take financial risk and give incentives for oversupply in the case of Schiphol in the Randstad. In this case these institutional problems are due to economic pressure; Schiphol is an atypical case in terms of land-supply. Japan's cultural and historic importance of land ownership created large problems in the case of Narita expropriation and land sale in the Rinku Towns. A severe lock-in and financial loss however forced the system to innovate by providing long-term land leases in the latter case.

## **8.5 Economic institutions: area development**

After the land is supplied, area development is the next stage of the development process. The patterns of land use and area development are analysed below in a broader context of economic institutions of market actors. The land supply institutional arrangement however can seriously affect the area development plans. As Segeren *et al.* (2005:126) concluded, there is no legal need for the governmental land supply and there has not been discussion on the relationship of government and businesses in the Netherlands. The institutional arrangement has simply grown in that direction and both local governments and developers are satisfied with the current situation with a founded relationship based on reciprocal trust, not on market prices

with maximum profits. This path dependent common practise, as an institutional arrangement, is however conflicting with policies for higher quality, mixed and intensive land use (*ibid.*). The reasons for these problematic economic institutional arrangements are ranging from public to private and differ from case to case.

First, the current economic institutional arrangement of area development in the Randstad does not support high quality and sustainable use of industrial and office sites. As Segeren, Needham and Groen (2005) found, after land is developed,, the municipality hardly cares about the site. It is easy to move to new sites provided by the local government, which implies a lack of financial incentives for quality investments and maintenance of the current industrial and office sites in the longer run. Public actors as the ministry of Economic Affairs and municipalities themselves then have to rejuvenate the older industrial sites.

In the Schiphol region, long-term site maintenance by the municipalities is a problem due to the fact that public profits of land sale or lease flow into the general reserves of the municipal bank account. SADC however invests some of the profit of land sale in business park management, since there are direct economic interest at stake e.g. in the infrastructure fund and landscaping. Nevertheless, the chosen construction of SADC with a role at the beginning (sharing a land pool) and a role at the end of the development process (the airport-relatedness test and marketing and sales), does not guarantee a continuous interest in increasing the returns from industrial land. In addition, until recently municipalities as Haarlemmermeer allowed building plans that do not match the intended land use quality standards in the time period between the land supply and the land use test, (Interviews Bijvoet 2005, Trommels 2006). SADC is thus not involved in real estate development; the board of commissioners' argument was that real estate development is a specialised market activity. More traditional developers as Mainland and AMB are looking for land to buy in the airport area, develop and sell it to asset managers or end-users.

Mr. Migchelbrink, NIB Capital: *“Although the financial risks of land supply are higher than in real estate development, SADC has never been involved in real estate. Land development balance sheets are considered as a core competence of the local government, and real estate is a market activity. The political risks of involvement in real estate development are too high – imagine the impact of vacant buildings developed by the municipality.”*

With hindsight, SADC could have made more money and might have been better in coordinating land use and establishing quality standards if it had been involved in real estate development (Interview Trommels 2006). In the case of Schiphol, one can expect that it is rewarding to keep the land and buildings as assets for continuous profits. In contrast to SADC, project developers as Chipshol and Schiphol Real Estate are involved in the entire development process with continuous cash flow and long-term interest in the sites. The airport puts land on account of the Schiphol Group, real estate development takes place under Schiphol Real Estate and asset management is brought in by investment funds as ACRE and asset companies of the airport. Chipshol similarly bought the land already in the 1980s, could develop offices and warehouses, invests in business park management, and presently benefits from rents.



A second problematic economic institution is the detailed land use plans, which hamper the flexible usage of buildings and land. These land use plans are most detailed in Frankfurt Rhein-Main. The Netherlands developed a tendency towards less detailed land use plans in the last decade (Interview Joosten 2003). However, although economic changes force for institutional adjustment of land use regulations, and sometimes conflict with other land use policies, these rules in the Netherlands have been unchanged for almost 60 years (Needham and Louw 2006). In contrast, the Japanese local land use plans are well-known for their flexibility. More important than mixed and intensive land use, is that rough zoning enables the built-up area to flexibly and smoothly adjust to the changing social and economic realities, and could be used as an inspiration for a more flexible approach towards land use planning in the Netherlands (Chorus 2002).

Third, the type of project developers also contributes to the density, mixture and quality of land use. In the case of Frankfurt, the main economical actor-institutional reason is the strong specialisation in the real estate developers' market. The office and housing markets have different cycles, the structure of financing is different and asset managers minimize risks by specialising. Developers therefore focus on their core competences, although sometimes alliances with other specialists are formed (Interview Joosten 2003).

Mixed, intensive and high quality area development in Japan was made possible by combining a bank, developer, asset manager and end-user in one *keiretsu* business conglomerate, in particular Mori Building, Mitsui-Fudosan and Mitsubishi Estate. Due the problems of bad loans, one of the main causes of economic stand-still in the 1990s, Japan introduced the American system of securitization (*shokenka*), the system of the board and control of the board as well as the structure of less inter-twined business units and cross-company shareholders structures. These trends increase specialisation and might have an impact on the type of area development in the near future, since all business sectors have to become directly profitable (Interview Tada and Yoshimura 2004).

Finally, the economic incentives for sustainable quality, intensity and mixed land use in area development can also conflict with the interests of the end-users. Distribution and warehouse owners as ProLogis and AMB see infrastructure and accommodation in business parks as the main contributors to a more qualitative area development. Despite the profitable logistics businesses, it is considered not the right location for investing in architectural design and mixed land use.<sup>10</sup> Design, facilities and decoration might harm the core business activities of efficient goods transportation that needs single floors, wide roads and free sight. Nevertheless, as land prices rise and goods become less bulky and more specialised, the case of Narita and in particular Hong Kong shows that it is a matter of time before these locations become more intensively used as sustainable real estate.

In sum, economic institutions in area development have a mixed influence. Available incentives and policies for mixed, intensive and quality development of airports as cityports do not always have the intended policy results. One area developer involved in the entire process from land ownership to land management, as found in Anglo-Saxon examples (Ball 2003), seems to be a more promising institutional arrangement for the long-term quality of land development than participation in only one or two stages of the development process and strict planning regulations.

## 8.6 Economic institutions: construction of public works

The next stage of the area development process (see Figure 8.1) is construction of public works. In the case of the airport as cityport, a particular focus is on the public and public-private actors' cooperation and characteristics of these public works, facilities and infrastructure. Section 8.3 has provided insight in the financial institutions in the case of public works. The high investments found in Japanese public works including airports, combined with the limited economic spin-off of the airports as cityports (chapter 2 and 3), are indicators of poor performance of the actor coalitions. A further analysis of economic institutions of the actors involved in the construction and planning of these public works helps to understand the apparently inefficient institutional arrangements.

### *Japan as construction state: exclusion in tendering*

The public works-centred finance structure is one of the fundamental pillars of the Japanese political-economic system, the modernization of which began before the Second World War and ended in the 1990s era of economic decline. The need for construction in the post-war era forced the Japanese government to increase expenses for public construction works. Parliament effectively passed legislation for more roads, rail, public buildings, ports and airports in the 1960s and 1970s. Special earmarked budgets were appointed and construction corporations were set up: the Urban Development Corporation (1955) and the Japan Highway Public Corporation (1956).

In the beginning, this state development model contributed to economic growth and a strong increase in employment in the construction industry (Sakakibara 2003). While the national budget for construction remained high (over five percent of GDP), the economic effect of public works however substantially diminished.<sup>11</sup> Today, the share of GDP for public works is almost double compared to the US and EU. Former minister of Finance Sakakibara (2003) therefore calls Japan a construction state (*koken kokka*), a system that is in particular of interest to the construction industry and politicians aiming to maintain the established economic institutional arrangement for political reasons. Even though structural reform of the construction sector is one of Prime Minister Koizumi's main policies, political reality has shown that further structural reforms are extremely difficult as long as the party-bureaucracy complex dominates decision-making, argues Sakakibara (*ibid.*). For understanding these public investments and the decreasing economic effects, we have to understand the roles and the positions of the actors involved in detail, best described by McCormack:

*"The Ministry of Construction allocates contracts to firms that belong to officially recognized cartels (dango). These firms are assured regular contracts and do not have to worry about competition. The prices, initially inflated allow generous profit margins, even after the creaming off of a levy, usually between one and three percent, which goes to maintain the political system at local and national levels. In due course, the construction companies provide comfortable sinecures for retiring bureaucrats from the ministry, or help in campaigns to elect such men to the National Diet or Local Assemblies, thereby sealing the magic circle of shared business-bureaucratic-political benefit. (...) The system is one of collusion between political bosses, businessmen, bankers, bureaucrats and occasionally gangsters (yakuza), who rub shoulders and exchange bundles of cash."* McCormack (1996:33-4)

Politicians, construction industries and bureaucrats were thus bound in an ‘Iron Triangle’ of benefit and influence (see Figure 8.3). Corruption makes the construction sector uncompetitive and too expensive: constructing a road costs four times less in Germany and nine times less in the US (McCormack 1996). The ‘construction state’ model largely explains the financial losses made in the public works discussed in chapter 8.3, in particular Kansai International Airport and artificial islands in the Bay of Tokyo. Expenses in public works were even increased by American pressure to stimulate the Japanese domestic economy in the 1990s.

McCormack argues that the role of bureaucrats and politicians is often discussed, but the role of the construction industry itself is seldom addressed. The iron triangle in the ‘construction state’ however does not explain the state’s responsiveness to interest groups and support for small business and other groups. According to Sorensen (2002) new patterns of policy making in the 1970s and 1980s led to a penetration of interest groups into the political-economic system. The LDP’s strategy of remaining in power allowed new groups in its ‘circles of compensation’ (*ibid.*). These circles of compensation include doubtful public works in Japan’s periphery to satisfy voters and to give prestige to local LDP politicians. Van Wolferen (2004) sees this incorporation of the enemy or embrace and take-over of enemies’ ideas as a fundamental strategy of the Japanese political-bureaucratic coalition to survive and stay in power since the Second World War, with the exception of 1993-1994.

The institutional arrangement of the construction state was efficient in 1950s and 1960s in terms of economic spin-off and public purposes, but the path dependent orientation of the political-economic complex has become more inefficient over time in terms of economic spin-off and state expenses. Public works became goals in themselves, no longer aiming at safety or economic development. Intended policy changes have not been effective in stopping institutional inertia and search for new directions of economic development. The actors involved in *dango* are free-riders of the iron triangle system and have major individual advantages.

In the 2000s, legal rules of collusion and bid-rigging in construction became stricter and are enforced by the Japanese anti-trust board. Open bidding is compulsory, but creates uncertainty and higher costs without a certain return on investment. Despite the legal regulations, it turns out that collusion, bid-rigging and even intimidation are still existing (Asahi Shimbun 11.11. and 30.12.2005). A recent case testing whether not only formal institutions but also informal ones changed in airport area development is the tendering process for Haneda’s fourth runway. MLIT opted for an open international bidding process, where only two Japanese consortia applied:

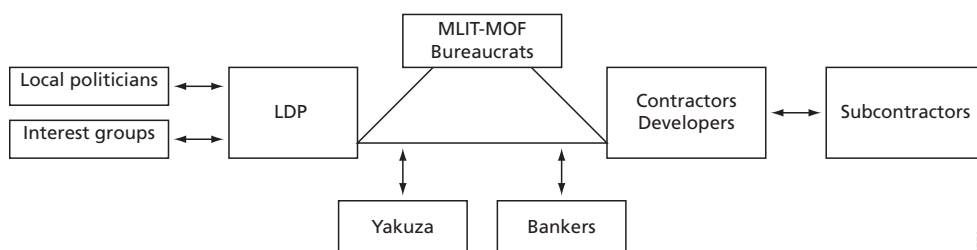


Figure 8.3 The Iron Triangle in the construction state Japan

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Mitsubishi Heavy Industries and Kajima.<sup>12</sup> After one group of steel-industry related bidders led by Mitsubishi withdrew suddenly, and only the Kajima consortium related to the concrete-industry was left and therefore automatically won the bidding (Japan Times 13.12.2003). It is unclear why no other companies joined the bidding and why Mitsubishi withdrew. MLIT points out that this is a very complicated project that can only be built by large and specialised constructors. This case illustrates the tendering hurdles for outsiders and the powers involved behind the curtains. Therefore, in airport area development, informal practises remain for the actors involved dominant over the new formal rules of the game.

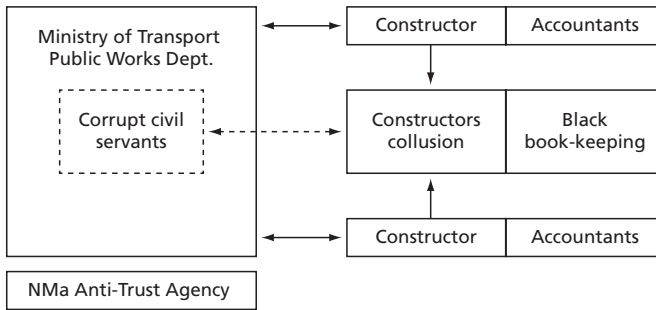
#### *Collusion and bid-rigging in the Schipholclub*

In the Netherlands, governments have a primary responsibility in facilitating infrastructure of roads, water and rails. Furthermore, local governments are close partners in developing public utilities as schools, hospitals and community centres. Until recently, price agreements, work sharing and expenses allowances were common in the construction stage of the development process in the Netherlands. Until 1992, it was common practise and allowed for constructors to collude in dividing work and setting prices for constructing public projects. The European Commission introduced the open internal market and explicitly banned collusion and bid-rigging since 1993, despite Dutch opposition arguing that the harmony in the efficient Dutch construction market would be disturbed.<sup>13</sup>

The main argument for the constructors' collusion is to compensate for the costs made in lost biddings and to stabilise the Dutch construction market. It turned out that the tendering process was institutionalised and continued; illegal price agreements practises and too high prices were paid for public works between 1993-2003 (Tweede Kamer 2003). After the revelations about a former construction company manager in a television documentary, a national parliamentary inquiry committee was installed to investigate collusion in the construction industry.

In short, Dutch construction collusion and bid rigging in the 1990s works as follows (see Figure 8.4). The government needs to build public infrastructure, e.g. a tunnel, bridge or school and have to ask constructors in the EU to tender. The constructors know which constructors are joining the bidding process and can bribe a civil servant picked from a secret list of corrupt Ministry of Transport's Public Works bureaucrats (Tweede Kamer 2003). In exchange for wining and dining, the civil servant informs the constructors what is the maximum prize the Ministry is willing to pay for the project. Then, the constructor whose turn it is to build is selected, the bid is set just below the maximum price, and the difference with the lowest bid is shared amongst the construction companies. The turns and budgets of the constructors are documented in a black book-keeping (see Figure 8.4). Accountants are unaware and ignorant of these black books and the *Nederlandse Mededinging autoriteit* (NMa) anti-trust agency plays a passive role. The effect of the institutionalised practises is a closed construction market with a limited number of players and too high prices, accepted by ignorant and inexperienced governments (Tweede Kamer 2003). Although the parliamentary inquiry focused on infrastructure, later it became clear that similar collusion and bid-rigging were common in utility construction as well (Cobouw 2004)

The booming construction market made collusion and bid rigging also possible in the Schiphol area, with the Ministry of Transport, Schiphol Airport and the NS Dutch Railways involved. Here, for institutional reasons we can distinguish the construction projects in the Schiphol area (*Schipholclub*) and the specific case the *Schipholtunnel*.



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Figure 8.4 Collusion and bid-rigging in Dutch infrastructure and utility construction

First, the *Schipholclub*, also known as *Noord-Holland-8* consisted of eight major national construction companies<sup>14</sup> that divided the Schiphol area development market between them. The Public Works sector of the Ministry of Transport more or less accepted the collusion and considered itself as not able to change market conditions (Tweede Kamer 2003:251). As long as there were no major differences with the expected costs or irregularities in tendering there was no reason to assume illegal collusion of the Schipholclub and there were few signs for this. Furthermore, the Ministry was passive in consulting the NMa, the anti-trust authority whose accountants were naïve and passive as well. The commission concluded that regularly there was extra work for the constructors, without a new tendering process, making prices higher than on a competitive market. The Schipholclub agreed to pay a €100 million fine plus settle for €73.5 million with local, regional and national governments (Haarlems Dagblad 5.7.2005). The Schiphol Group also paid for some of the 15 major public works in the airport region and airport facilities, but could not join the public sector settlement. The claim of Schiphol was recently settled with a construction company's donation of €500.000 in the airport charity fund (Parool 8.12.2005).

Second, the characteristics of the Schipholtunnel project are different from the Schipholclub, but were also part of the construction fraud parliamentary research on collusion in the construction industry. In 1989, NS Dutch Railways choose not to tender the Schipholtunnel project but to cooperate with a consortium of constructors, the *Kombinatie Schiphol Spoortunnel* (KSS). At that time, this kind of non-tendering was legal because of time-pressure (Tweede Kamer 2003). KSS, founded by Strukton, a subsidiary corporation of the national railway company NS and BAM (then called HBG), was later joined by Ballast Nedam to construct the Schipholtunnel. The province Noord-Holland never formally acknowledged the participation of Ballast Nedam. The advantage of the chosen construction is less time-loss since there is no bidding process required, the risk is higher prices. However, the project did not lead to higher prices. Quite in contrast, this project had lower costs caused by purchase and efficiency discounts due to the repetitive character of the tunnel construction. These discounts, up to twenty percent, were however kept secret amongst the constructors, leaving the principal unaware. The Ministry of Transport subsidized NS by granting €23 million and successive ministers were naïve in allowing the chosen construction consortium to continue (*ibid.* p.218). When the case became known in the media, the Minister withdrew the subsidy granted, by arguing that NS as principal had failed in its role towards the construction companies. The case was settled by a fine of €4.5

million paid by each constructor; in exchange the constructors would not be placed on a black list of constructors, which would in fact mean a death penalty for the firms involved.

The Dutch Parliamentary committee pleaded not only for a lawsuit and further anti-trust law enforcement, but also for a more rational business culture of relationships between the government and the constructors in the future. The fact that the collusion culture is institutionalised is not only underlined by the pre-consultation rounds in infrastructure, later it turned out to be common practise in utility construction as well and there are other cases found of false invoices.

Although there are no excuses for the illegal cartels of constructors, Van Damme (2002) found that governments are also to blame in the tendering process and put the collusion and bid rigging in a broader perspective. Since 1993 collusion is illegal, but until 2001 the government failed to introduce new tendering regulations. The problem of construction industry tendering fits in a context of difficulties in tendering and auction of the national government in the Netherlands.<sup>15</sup> Without new clear market rules and legal enforcement it is not surprising that institutionalised common practises continue to exist. Path-dependencies are not broken since the established institutional arrangements guarantee expense allowances and regular orders for the constructors involved. On the other hand, principals are not aware or not active in changing the inefficient institutional arrangements into more efficient ones, since they can be free riders at the individual level. If not ignoring or free-riding, it might have taken time to puzzle for suitable new legislation. With the introduction of new formal institutions as new tendering regulation, the challenge is to gradually change the deep-rooted informal institutions of common practises, values and norms as well.

*Suspected bribery in the Frankfurt office market*

Economic rules of the game in Frankfurt Rhein-Main construction are problematic in different ways than in the Japanese and Dutch cases. The construction industry market in Germany is more open to competition, so market fluctuations hit the market harder from time to time.<sup>16</sup>

The competition in the construction industry in the period of economic stagnation or slow growth forced construction companies to put all effort in obtaining orders, either public or private works and produce at low prices. The imbalance in the construction and development industry can also invite illegal practises, in particular bribery. Since the role of the local government is less active, as yet bribing is limited to illicit commissions paid between private actors. The common pattern in a series of bribing in Frankfurt's office market is shown in Figure 8.5. The

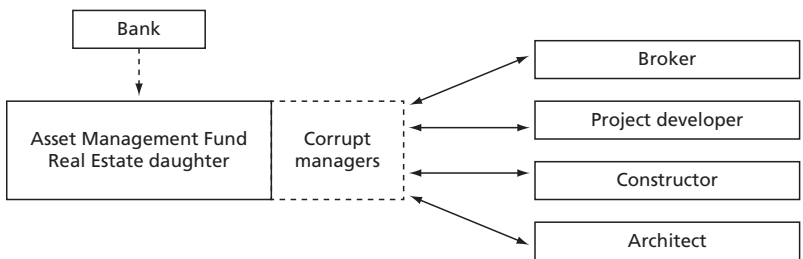


Figure 8.5 Suspected bribery for contracts in Frankfurt's office market

asset management funds, subsidiaries of major banks, have construction, maintenance or renewal orders for the constructors and developers. Architects, brokers, developers or constructors make now the managers of the investment funds and pay illicit commission to convince the managers to let their company do the work. In other cases, these managers are bribed in order to put a completed project in their companies' asset management portfolio.

Germany's formerly largest construction company Philipp Holzmann became involved in a downswing of cartel, bribery and financial scandals in the end of the 1990s. In an U.S. financed public construction project in Cairo, Egypt, illegal cartel formation and price agreements resulted in Holzmann having to pay US\$30 million fine to the American anti-trust agency in 2000 (Hüschelrath 2002). This fine contributed to the losses the construction firm already made because of overcapacity in the German market and non-profitable investments in reconstruction projects in former East Germany. The Holzmann group had grown too large and too far away from the core activity of project development, and run into losses (Interview Klärner 2003).

The bankruptcy and selling of valuable Holzmann company subsidiaries to competing construction companies cleared the German market only partly from overcapacity (FAZ 21.3.2002), which became apparent again in another bribery case in Frankfurt's office market more recently. The city of Frankfurt and the Federal ministry of Finance investigate cases of bribery between investment funds and construction companies. The coming-out started with a Deutsche Bank Real Estate manager that is accused of accepting €500.000 from a well-known architect in Frankfurt in return of construction orders (FAZ 5.9.2004). In the mean time, not only managers at Deutsche Bank Real Estate, but also Deutsche Bank Asset Management, a subsidiary of Gothauer Life Insurance, Deka as a daughter of Sparkassen Gruppe, and Jones Lang LaSalle as a broker are suspect of 150 cases of bribing in total (FAZ 14.II.2005). Amongst other, the construction and maintenance works of Trianon, IBC, and Japan Centre skyscrapers are investigated.

In respect to Frankfurt airport area development, the case of the *Holzmann Gelände* is striking. Philipp Holzmann's offices were located between Neu-Isenburg and the airport. Holzmann, Deutsche Bank and DHF agreed upon a sale and lease-back construction long before Holzmann went bankrupt. Therefore, banks currently own the area and plans are made for redevelopment. The first plans for offices, hotels and congress facilities failed. Recently the focus shifted towards intensive airport related logistics on the 53-hectare area (FAZ 15.6.2004). Despite a study on possible increased traffic impact that would not harm the town, Neu-Isenburg opposes such a low-quality redevelopment, afraid that a distribution area harms the image of the town (Interview Schien 2003). Because of this long-term disagreement, no land-use plan has been made yet.

Neither is collusion and bid-rigging unique for the Netherlands and Japan, nor is bribing in Germany. The construction sector, together with vitamins and graphite is topping the list of U.S. anti-trust board fines (see Hüschelrath 2002). Collusion also takes place in highway construction in the US. The case of a French political party involved in Paris school construction is most similar to the Japanese case, where not only civil servants and constructors are involved, but also politicians. The fact that in the Netherlands politicians or political party funding was structurally not involved in construction fraud distinguishes the Dutch cases from the French and Japanese 'triangles'.<sup>17</sup>

In sum, Japan and the Netherlands have in common that the consensus orientation and demand for a stable construction market with continuation of work and revenues might be economic stabilizing factors contributing to the situation. The Dutch case shows institutionalisation of a formerly accepted common practise, which worsened when it became an uncontrolled illegal practise. In the 'construction state' Japan, small improvements after interdiction are seen. The case of Frankfurt's office market bribery shows the unclear effects of changing the institutional arrangement into a more open and competitive market; the nature of the devastating real estate market cycles causes companies to seek stable buying and selling with the help of bribing and shows the disadvantages of that institutional arrangement.

## **8.7 Economic and financial institutions: airport management**

The final stage of the area development process is management. This section primarily focuses on the management of the airport itself, in particular the discussion on airport privatisation. Management of the wider airport area in terms of business park management has been discussed in sections 8.4 and 8.5. As chapter four has shown, airport commercialisation and airport ownership contributes to the economic spin-off of the airport as a cityport in the wider city-region. Airport privatisation can be considered as the next step in the evolutionary process of airport commercialisation. Rapid growth of the aviation sector, large investments and the shift from a public utility to a commercial enterprise are the push factors for the privatisation process, which started in the 1990s. This section discusses the types of privatisation and the advantages and disadvantages from a theoretical perspective, and the practical experiences in the case study areas.

There is a variety of types of privatisation, ranging from full privatisation to partial privatisation. Graham (2001:19) distinguishes five categories: share flotation, trade sale, concession, project finance privatisation and management contract.

In the case of share flotation, the airport company's capital is issued and traded on the stock market. The government will give up (partial) ownership, while transferring risks and effective control to the new shareholders. This type of privatisation will reduce the need for state involvement in the airport financial affairs. A major precondition is that airports make profit so that their shares are attractive for the market. The major case study related examples are Germany's public offering of 29% of Fraport shares in 2001, and close to 49% in 2006. In the Netherlands, the national government intends to offer a minority share of 49% of Schiphol Group shares to the market (Ministry of Transport and Water Management 2003). Japanese airports vary from case to case. Haneda remains publicly owned. The Japanese national government is privatising Narita International Airport with a public offering of all shares from 2007.

The second type of privatisation, trade sale, is closely related to share floatation. Parts of the airport are sold to a trade partner or consortium of investors. Trade partners are mainly strategic partners such as established airport operators. In the case studies, trade sale practices are also apparent. A consortium of constructor Hochtief and Air Rianta own 50% of Düsseldorf's airport and 36% of Hamburg's airport. Fraport bought 30% of Hanover airport shares. Kansai International Airport has a large number of very small shareholders, in particular construction



firms (Bongenaar 2001). In the USA, private ownership of airports is common, with a major role played by airlines in dedicated terminals. De Neufville however recommends local and regional authorities to keep a majority of ownership in public hands because of the public interest of the airport as infrastructure (De Neufville 1999).

Third, in the case of concessions, an airport management company or consortium will purchase a concession or lease to operate the airport for 20 to 30 years. This type of privatisation is mainly found in Latin-America, where amongst others TBI and Schiphol Group have concessions. The concessionaires take full economic risk and responsibility for operations and investments, but the government maintains a greater degree of control with the later return of the airport.

The fourth type of privatisation is project finance privatisation. In this scenario, a company will build, operate and transfer the facilities to the government owner.<sup>18</sup> With the increasing importance of home carriers and airlines alliances with dedicated terminals, project finance can become an attractive option for airline alliances. In the case studies project finance constructions are also common. Fraport financed the third terminal of Manila for 25 years, where Schiphol Group invested in the JFK arrivals terminal for twenty years (Graham 2001).

The last and least radical form of privatisation is management contracts. The government remains owner of the airport and investor, where the contractor manages the airport and pays a management fee to the government. This can be more politically acceptable and is applied in several African airports and island states.

Although airport privatisation discussions of advantages and disadvantages should be seen in a regional embeddedness context, theoretical arguments are well known and discussed in depth (see e.g. Jackson and Price 1994). Graham (2001:12) summarizes the advantages and disadvantages as:

*“Privatisation will reduce the need for public sector investment and free access to commercial markets. It will reduce government control and may increase an organization’s ability to diversify. It may bring about improved efficiency, greater competition, and wide share ownership. On the other hand, it may create a private monopoly with overcharges, delivers poor standards of service, invests inadequately and gives insufficient consideration of externalities such as controlling environmental impacts and maintaining social justice. Less favourable employment conditions may be adopted and redundancies may occur.”*

Despite future share floatation in the case of Narita, and improved economic efficiencies, the Japanese Ministry of Transport is not losing control over airport development issues. MLIT is creditor of Narita’s €5,2 billion running dept and with that position can influence Narita’s development (NAA 2003). In the case of Haneda, MLIT uses the exception status of the airport amongst the international airports of category A as the main argument not to privatise Asia’s largest and very profitable airport. Haneda is an entire government investment and MLIT worries that privatisation will lead the income flow towards commercial actor’s pockets. Even if privatisation generates more income in total for all, MLIT still does not consider it her task to generate more income revenues (Interview Obuchi and Kuniwake 2004).

An often-stated argument for not privatising Haneda is the many jobs involved in developing and managing Haneda at MLIT. Privatisation might lead to a direct loss of jobs

at this ministry. Perverse incentives come here furthermore in play by the legal obligation that MLIT bureaucrats are in charge of designing airside infrastructure. This can not be outsourced to the final constructors and leads to a situation of many semi-permanent consultants working at the ministry.<sup>19</sup>

In 1995, discussion on privatising Schiphol started in Dutch parliament within a broader policy context of railway and energy sector privatisation. This led to the cabinet's intention for minority share floatation. The Dutch Social Democrats withdrew its support in 2000 in the light of other failing or struggling privatisation processes.<sup>20</sup> In 2004 the cabinet decided a minority stock exchange quotation and the plans have recently been discussed in parliament that has the final say. The main arguments for the cabinet's privatisation plans are the clear role differentiation of the government as shareholder, controller and legislator on the one hand and increased airport competition on the other hand (Ministry of Transport and Water Management 2003). In the Netherlands, opponents of privatisation fear that share floatation will lead to fewer grips on the airport in terms of environmental policies, land use and coordination. Quite in contrast, governmental intervention remains important and a privatised airport has to deal with even more regulations and higher transparency standards required from a private company with limited liability (CPB 2000).

In airport area planning, privatisation of airports is an important tool for making economic institutions more efficient. Since privatisation started, Narita's airport authority could cut costs for operation by ten percent and reduce expected costs for constructing terminals by seven percent (Interview Namekata 2004). The applied Toyota model, procurement of cheaper subcontractors, and cheaper materials from China are the main reasons that construction costs for Chubu International Airport of €750 million could be reduced with at least one sixth (Interview Ueda and Tsuchiya 2004). Financial independence forces airport authorities to spread risk and to consider other economic activities than the core activity of managing the airport. For example, Narita is discussing a managing role for cargo companies in airport cargo handling.

The argument of economic efficiency can be applied in the case of Schiphol only to a limited extent. Due to competition airlines cut costs, but if Schiphol's costs rise it simply asks higher landing fees. Privatisation might force the airport to become more sensitive of the carriers demands. Nevertheless, as chapter 4 has shown, Schiphol is already one of the most efficient airports in the world.

The second argument for privatisation is related to investment opportunities of international corporations in privatised airports. According to the Transport Minister of State it is a well-known secret that the Schiphol government-owned company could not buy the government-owned company of Zaventem airport near Brussels within a liberalised European market (HFD 6.5.2005). On the other hand, Aéroports de Paris is a state owned company and is successful in buying (parts of) other airports all over the world (Interview Veldman 2005). Recently however, French national government decided to list a minority share of stocks at the Paris stock exchange.

According to Graham (2001), the third argument for privatising airports after improved efficiency and increased competition is wide share ownership. In that case, actors ranging from interested

individuals to pension funds in the city-region can buy airport shares. Individuals affected by the airport can get involved in and co-determine the airport development direction.

In the case of Kansai airport, local constructors are pushing for runway expansion and new contracts, by using their position as shareholders. For privatising Schiphol, a plan to sell to pension funds and other institutional asset managers is under discussion as a compromise (Ministry of Finance 2006) in order to reduce concerns over the short-term orientation of private share holders. In order to avoid shortsightedness, CPB (2000) recommends specific and temporarily concessions and further regulation. The Advisory Council of the Ministry of Transport prefers a model that does not lead to personal benefit of the current Schiphol management (Raad V&W 2003).<sup>21</sup>

No matter whether wide or limited share ownership is chosen, it is argued that privatisation can increase access to the capital market. This access is a major argument for share flotation in Frankfurt and Schiphol. In Frankfurt, parts of the airport were brought to the stock exchange in the 1990s with limited effect. The main reason for Frankfurt's stock quotation was raising funds for investments in airport expansion. Airport privatisation did not improve or worsen regional embeddedness; local opposition is still contesting dominant economic interests of Frankfurt Airport.

The access to cheap loans is used as an argument for privatising Schiphol. According to Schiphol, large investments are planned for future runways and a new terminal at the northwest side of Schiphol. Insiders however argue that the current Standard and Poor's AA creditworthiness rating and the public ownership guarantee low rents and sufficient access to capital for investment (Interviews Migchelbrink 2005 and Smilde 2005).

A final argument for privatisation used by both economists and environmentalists is that Schiphol is treated as a private company with all the conditions, restrictions and accountability this entails (Nyfer 1999, CPB 2000). Positions of the actors become clearer in the case of a private company with limited liability (BV) and only corporate targets. Furthermore, the government has a controlling function and not a developing one and the parliament is not constantly involved in corporate business management:

*"Parliament is not the right place to decide upon the number of passengers using the airport, the direction of take-offs and landing and the exact number of decibels produced by every flight."* (Nyfer 1999:31)

The major argument against privatisation is the monopoly position of airports. A shift from a public monopoly to a private monopoly can affect the regional and institutional embeddedness of the airport in the city-region. A private monopoly is considered worse than a public monopoly. However, without clear indications it is hoped that the cooperation between airport coalition and environmental coalition in the case of Narita airport privatisation might improve. The major cause is the clearer role differentiation of the owner, controller and legislator, as well as the need for a private company to cooperate with its neighbours.

Currently, actors that are not part of the airport development coalition describe Schiphol Group as "arrogant monopoly" due to its institutionalised structure and management. The question is whether this situation will improve or worsen with privatisation. Schiphol is however not the only monopoly in airport area development. It is said that the aviation sector is managed

by five monopolies: KLM as dominant user of the airport, Schiphol, air traffic controllers of LVNL, and the ministries of transport and environment (VROM) (Interview Bussink 2005). Ministries are held responsible in parliament. KLM and Schiphol are held accountable by the shareholders, for KLM in public, and Schiphol behind closed doors. LVNL air traffic controllers are a public entity that is not held accountable to the outside world; despite the major role LVNL plays in managing airport capacity. It is very difficult to change the monopolistic institutional arrangements, even with privatisation or an EU instigated level playing field, since there are always dominant actors involved (Niemeier 2002).<sup>22</sup>

In summary, airport privatisation has many appearances and both advantages and disadvantages. In the case of Narita and Chubu, privatisation led to greater efficiency and breakdowns of monopolies. Frankfurt could access additional financing for investing in a new terminal building. In the case of Schiphol privatisation is less urgent as the airport is already efficient and competes internationally, but insiders agree that a clearer role differentiation between airport and governments should be one of the main reasons. In the end it is in particular the position of the airport as a regional monopoly that is the main cause of inward looking behaviour.

## 8.8 Conclusion

In this chapter, economic and financial institutional arrangements of the case studies airport area development were discussed in the sections on land supply, the development and construction process of infrastructure and buildings, public works and the risks of developing the airport as a cityport, and finally airport management. We addressed for the case study areas, the research question considering the economic and financial rules that co-determine the playing field, actor behaviour and actor coalitions in the development of airports as cityports

The decentralised fiscal structures in Frankfurt Rhein-Main forces local communities to compete on corporate tax. Despite the sense of urgency, actors are not able to agree on new institutional arrangements for dealing with tax competition in relation to regional financial redistribution. The sunk costs for new solutions (towns might lose their competitive advantage), uncertainty of new solutions (effectiveness of equal corporate tax is not yet proven and an incentive for competition is taken away) and in particular political conflict (caused by past experiences and city versus suburbs) lead to a lock-in situation in terms of financial institutions.

Fiscal competition is absent in the centralised fiscal structure of the Tokyo Metropolitan Area and the Randstad. Although regions in Japan do not compete on taxes, they do compete on public works to attract businesses. Fiscal and political centralisation created subsidy dependency and investments in public works were inefficient in the 1970s and 1980s. In the case of the Randstad, competition between municipalities is less developed than in Frankfurt Rhein-Main and the Tokyo Metropolitan Area because a general grant from the Municipal fund guarantees both income and free decision on spending. On the other hand, this relative independence lack of local competition is one of the explanations why towns in the Schiphol area have a less profound social-economic profile.

Instead of tax advantages or public works, the local governments in the Randstad improve their competitiveness and investment climate with an active role in area development. In particular

land supply is an institutionalised but not legally required governmental task. Developers appreciate the cooperation with the governmental landowners, as they take on less financial risk. Municipal land agencies can generate some extra income (or losses) by taking these financial risks. Municipalities therefore seem to focus more on sufficient land supply than on directly attracting jobs and businesses. In the Schiphol area, regional cooperation has been a unique and effective tool for coordinated area development in the airport vicinity. In particular cooperation with the market-oriented SADC common land pool is widely appreciated by end-users, developers and asset managers. In economic terms the area development around Schiphol is successful, but there are some negative effects in institutional terms: intervention in the market balance of supply and demand, and less incentives for mixed and intensive land use since new sites are already available and no continuous returns are generated for the industrial and office sites. These planning policies contribute to the variety of office and industrial sites in the airport area, but the airport area does not become as colourful as Frankfurt Rhein-Main, were market pressure and infrastructure force locations to specialise.

The Randstad model stands in contrast to the land supply and property development model applied in the airport vicinity in Rhein-Main and Tokyo. The latter cases have the advantage of a larger domestic market, with a wider variety of developers able and willing to develop large-scale projects as airport islands and the AIRRAIL Center. A larger market in Japan however does not mean a more open market. The major privileged developers and landowners stay in power positions and are part of an iron triangle. Sunk costs of change, uncertainty from opening the market to competition and political conflict are the main reasons for the institutional lock-in. This is partly caused by the fact that governments do not make clear bidding rules and/or are able to enforce and inspect these rules. After collusion became illegal in the 1990s, institutionalised practises continued in both the Dutch and Japanese construction industry. As similar bid-rigging and collusion is regularly fined by anti-trust boards, one can ponder if collusion practices are in the nature of the construction industry.

Recent tendering cases show how locked-in and path dependent the bidding process is, making the institutional arrangement hard to change, in particular in Japan. It is closely related to the socio-cultural institutions ingrained in the corporatist model, where these practises are maybe longer tolerated than in the U.S. or France, with strict protection against business groups' interests. In Japanese planning institutions, path dependency turns out to be strong – as can also be seen in the discussion on privatising Haneda airport and constructing the second runway of Kansai International Airport – and changes can only be made in new projects – for example the new airport of Nagoya. Although most interviewees see the revolutionary experiment with the new airport in Nagoya as an exception, a success might lead to a new common practise, where airports are more embedded in the region and contribute to competitiveness of the city-region.

The difficulties of changing the institutional arrangements are also evident in the section on the airport monopoly in the region. Arrogance, inefficiency and exclusion of actors are characteristics of a monopoly, which cooperates with other monopolists running the aviation sector in the EU. These turn out to be more crucial issues than the current political debate of privatising the airport. A greater challenge is thus a EU-wide level playing field of competing airports. Many actors are worried that a privatised monopoly is worse than a public monopoly, but it is unsure if selling the shares to private shareholders really makes much difference. The great economic

efficiency improvements obtained in Narita and Centrair cannot be expected in the airports in Amsterdam and Frankfurt, since they already function as efficient private companies in practice. It can however lead to clearer role differentiation between the government as supervisor and the airport as operator. For Haneda, airport privatisation can however contribute to efficiency in airport management, both at the airport as at MLIT.

In terms of economic and financial institutional arrangements, the limited number of players involved due to a lack of openness of the market and exclusion from actor coalitions and the undefined roles of the actors is a returning theme. This was found not only in the analysis of airport vicinity area development, but also in the development and construction process and the institutional nature of large infrastructure projects. Furthermore, unclear rules set (or not set) by the government are a returning institutional problem. The next chapter on institutions of governance and legal institutions will discuss this in depth.

## Notes

- 1 Ogawa (2002) studied the efficiency of tax redistribution, and concluded that in the 1980s metropolitan areas were overprovided, and after 1990 rural prefectures were overprovided with grants. After 1993, the optimal transfer should have been in favour of the metropolitan prefectures again.
- 2 Free public transportation, personal grants and kinder gardens are offered to managers if they decide to shift their businesses to Germany's capital. The result is a move of the European headquarters of Axel Springer publishers, Universal Music, MTV and Coca Cola to Berlin, indirectly financed by the richer states in southern Germany (der Spiegel 24.II.2003).
- 3 For instance, Schiphol is willing to contribute €30 million to the bypassing of the A9 at Badhoevedorp and contributed to the costs of building the tunnel of the new A5 motorway (Interview Mast and Schaafsma 2005).
- 4 According to Japanese Airport Development Law, available at: <http://nippon.zaidan.info/seikabutsu/1996/00607/mokuji.htm> [May 2006]
- 5 Currently, Kansai and Chubu International Airports have Development Bank of Japan loans. Tokyo's airports are financially strong enough to invest themselves (Interview Oki 2004). CJIAC is a financially healthy company that is expected to return the loans with interest. KIX is an exception for DBJ, since there will always be additional investments of the government required. The political and local pressure for a second runway in Kansai International Airport is a political problem; the profitability is questionable. Therefore, DBJ proposes national governmental to contract a loans to locals, by-passing DBJ, in order to make the investments possible (*ibid.*).
- 6 In Private Finance Initiative, 89% of the projects were delivered on time or early, 80% of the projects came in on budget compared to projects paid for the conventional way only 17% did (Economist 18.12.2004). Currently, in Japan there are few PFI projects; the national projects as Kansai International Airport are national projects in a special purpose enterprise (SPE), not PFI (Interview Oki 2004).
- 7 The share of income can show the financial dependence from the land market in suburban new towns as Houten (50%) and medium-sized cities as Amersfoort (30%, Kolpron Consultants 2001).
- 8 SADC was set up to coordinate land positions and land use in the airport area, in order to avoid a tragedy of the commons and aim for a higher quality of development. The idea of the municipalities was, that a common land pool would be better able to decide which project developers should enter and which land uses

are allowed. This is in order to avoid office development as in Schiphol South-east, where local governments intended only industrial land. At the time of establishing SADC however, land positions were already taken by amongst others Chipshol and Smits Bouwbedrijven. These land owners sold the former agricultural land as industrial land to SADC, including profits (Interview Trommels 2006). The supply of land on the market, as a result of the system, is increasingly regulated by regional cooperation of local governments. The question raised, whether this lead to unacceptable public monopolies in land use. The anti-trust board NMA has explored a few situations of cooperation and approved the supply and price agreements of local governments and abuse of the market monopoly is rarely found.

- 9 The source is an interview with Tanizami and Kumuda of Prologis Japan in 2004. The lack of industrial locations in the Schiphol region however might be solved, since in recent plans the capacity for the next 35 years is assured (Interview Peters 2005).
- 10 Interviews ProLogis (Tanizami and Kumuda 2004 and Peters 2005), and AMB (Wade 2005)
- 11 Government spending on public works was 5.73% of GDP in 1997 and 5.29% of GDP in 1975 (Sakakibara 2003). For instance, for continuously developing northern Hokkaido, one tenth of labour force works in the construction industry. The economic multiplier coefficient of 0.247 in 1950s went down to 0.094 in 1975, and 0.059 in the beginning of the 1990s (*ibid.*).
- 12 For the first time in airport airside construction, an open international bidding process was held. MLIT learned from previous projects not only to consider the costs of construction, but also to include to costs of maintenance, a major problem at Kansai International Airport.
- 13 Letter from former prime-minister R. Lubbers to European Commission chairman J. Delors, dd. 31-1-1992, available at [www.cobouw.nl/file/pdf/briefr.htm](http://www.cobouw.nl/file/pdf/briefr.htm) [access 18-8-2005]
- 14 The Schipholclub consisted of Ballast-Nedam, KWS, Heijmans, Ooms, BAM, Koop Tjuchem, HBM and Dura Vermeer. Amongst various incidents, at December 17, 2004 it was proven that civil servants accepted a 'jubilee reception' from the constructors' coalition illegally for building the Zuidtangent (Cobouw 2004).
- 15 Former secretary-General of Economic Affairs Geelhoed considers the problems with auction and tendering as the main problem of the second Cabinet Kok (Volkskrant 30.4.2002). Van Damme (2002) discusses the problems in the auction of radio, UMTS, and cell-phone frequencies and petrol stations.
- 16 For instance, De Vries (2004) shows that the asphalt tendering market is more competitive in Nordrhein-Westfalen than in the Netherlands.
- 17 This is not to say that construction companies in the Netherlands are not involved in politics at all. The right-wing LPF party is financed by construction companies, amongst others Ed Maas (NRC-Handelsblad 27.07.2002)
- 18 The most common type is build-operate-transfer (BOT); other methods are build-transfer (BT), build-rent-transfer (BRT) or design-construct-manage-finance (DCMF, Graham 2001).
- 19 Interviews are the main source, with anonymous citations.
- 20 One of the arguments against privatising the airport that is still a matter of debate, is the problematic privatisations of the Dutch railways and energy suppliers. Already in 2000 the CPB concludes that this kind of comparison is irrelevant, since Schiphol has more competition than the railways, the quality of the network is for the airport of great importance and commercial and public interests of the airport are more parallel than in the case of the railways privatisation (CPB 2000:52). Nevertheless, the transportation minister shows understanding to the cold feet and argues to have learned from the failures in the past (Het Financiële Dagblad 6-4-2005).
- 21 The interviewees are not worried about shortsightedness, since the airport management will always primarily focus on the core of business, operating the airport.

- 22 According to Mr. Bussink (Netherlands Ministry of Transport) and Mr. Veldman (Stratagem), for instance if Schiphol becomes too expensive, KLM might move to Paris. However when Paris-Charles de Gaulle becomes too expensive, Air France will lobby and push politicians in Paris to change landing fees. Monopolies and dominances will continue to exist, even in the case of a EU level playing field.



# 9 Institutions of governance and legal institutions

## 9.1 Introduction

The actor-oriented analysis of socio-cultural, economic and financial institutions raised questions concerning government coordination and the legal embeddedness of institutions in the development of the airport as a cityport in the city-region. The institutional analysis in this chapter focuses on governance and the legal framework of the development process, before drawing conclusions on institutional learning. The analysis answers research questions 2b and 2c: *What are the institutions that determine the acting playing field for the actors involved? If so, where do inefficient institutions, path-dependent behaviour and institutional lock-ins lead to obstacles in the spatial-economic development of airports as cityports?*

Institutions of governance refer to organisation between government levels and sectors, and increasingly to cooperation between (semi) private actors that co-determine policies. This chapter distinguishes institutions of governance in vertical coordination, horizontal coordination and public-private coordination. The analysis of vertical coordination in section 9.2 focuses on the relations between levels of governments, in particular the tension between centralisation and decentralisation of policy-making and implementation. Horizontal coordination, between sectors of the same government, will be discussed in section 9.3. As urban and regional planning involves various policy sectors, coordination problems between economy, infrastructure and environment arise. As argued in chapter 2, strategies of connectivity between public and private actors to create economic networks in the city-region are becoming more important than formal re-organisation of levels, sectors and territories of governmental coordination. This shift from government to governance is explicitly addressed in section 9.4, and in particular focuses on the involvement of the private sector in policy-making in the Schiphol area.

Legal institutions are the legal rules of the game for actors involved in area development, ranging from land-use plans to property rights and tendering. Since legal institutions are the outcome of policy-making of institutions of governance, these groups of institutions are jointly discussed. Legal institutional arrangements for the development of airports as cityports can be distinguished on the international level, in particular air space laws and trade agreements (section 9.5), the national level, with a focus on noise and safety contours (9.6) and local and regional level, where final urban development is planned and implemented (9.7). Section 9.8 draws conclusions for both institutions of governance and legal institutions. These conclusions are an upbeat for institutional reflection in chapter 10.

## 9.2 Vertical institutions of governance

The overview of government actors in chapter 6.2 demonstrated the main power relations between national, regional, and local levels. The following section elaborates the actors' position in the playing field by analysing the formal and informal institutions of governance that are considered as problematic by the actors. The vertical institutions of governance discussed in this section are the rules for the area development game played between levels of government. In particular the focus is on (1) the coordination role of governments in the development of the airport as a cityport, (2) power struggles between levels of government and (3) the fragmentation of competences between local, regional and national government levels.

### *Decentralisation in the Netherlands*

The coordinating role of airport area development is located at different levels in the case studies. The national and regional levels play a coordinating and enforcing role in policy implementation in the Schiphol area. The national government focuses on the airside policies in the airport area, whereas the regional and local governments are involved in the landside development. The steering role of the national government consists of four tracks: ownership; law making and enforcement; policy-making; and a steering philosophy (Com. De Grave 2005:72). Airport ownership has been discussed in chapter 8.7, whereas legal institutions will be discussed in sections 9.6 and 9.7. Section 9.3 analyses policy-making within different ministries. Here we focus on the role of national government in the steering philosophy.

The current paradigm is 'decentral where possible, central where necessary' (VROM 2004). This regulatory principle leaves the regional level with more responsibilities and tasks than before, whilst also creating opportunities for centralisation of governing tasks of national interests. The essential question in the case of Schiphol is, which elements need steering at the national government level and which elements can be decentralised to the regional and local levels. In the 1990s, actors have formed a consensus on airside development as coordination task for the national government, which includes the number of flights, runway and terminal construction, safety and environmental zoning, and air routes. However, landside development should according to actors be a task for the regional level and co-operating municipalities. There is considerable debate in landside development on how vertical coordination should be organised. Proponents of decentralisation argue that in line with the current steering philosophy, national government should not interfere in airport area landside planning directly or decentralisation. Opponents doubt the ability of the regional and local level to take up this responsibility:

Mr. Smilde (DHV): *"Policy-making is now being decentralised to the regional level, with implementation in Noordvleugel cooperation. (...) The question is whether the region is politically and financially equipped for policy-making and has enough feeling for the Schiphol issues. At the national level, tying up and overruling should be possible."*

The actors interviewed for this project and the Committee De Grave report (2005) express severe criticism of the landside-coordinating role of the province of Noord-Holland. Although formal cooperation amongst the actors involved has improved in the 1990s (*ibid.*), the province of Noord-Holland is considered by the actors to be too weak in its role as an (independent) negotiator between the actors involved. Furthermore, Noord-Holland lacks power, as it has no

substantial influential financial resources to enforce and achieve policies. However, the more hidden role of the province is to channel and defend interests of weaker smaller municipalities and environmental groups. The province's weakness in negotiations can furthermore be explained by its historically grown mindset of dependency on subsidies and other financial resources from the national government.

National ministries play a decisive role in the process of airport expansion, appointing housing locations and motorway construction. Ultimately, local and regional actors expect the national government to take a leading role in this process. For example, actors were initially sceptical about the decentralisation of infrastructure budgets under €227 million from the Ministry of Transport to the ROA. Although the budget was spent efficiently and effectively, it was not sufficient for light rail or major road construction. Moreover, the Noordvleugel claims far more money for regional infrastructure than can be reasonably expected from the Ministry of Transport's MIT (*Meerjarenprogramma Infrastructuur en Transport*) long-term infrastructure budgets. As a result, the Schiphol area is currently in a transition process between centralised policy-making with 'old' characteristics of subsidy- and policy-making dependency and having a more equal relationship with regional governments with own budgetary responsibilities.

Despite these recent changes, the regional actors as well as the VROM and Economics Ministries struggle with their involvement in the Schiphol airport area development. A particularly controversial issue is the national governments' combination of a passive supervisory role overall and an active risk-taking approach to mega-projects, such as the mainports and particularly the Zuidas (Interview Migchelbrink 2005, cf. Kreukels 2005).

#### *Decentralisation in Japan*

The vertical institutions of governance for coordinating airport and airport area development in centralised Japan are similar to the decentralised unitary state of the Netherlands. In Japan, the Ministry of Land, Infrastructure and Transport (MLIT) is in charge of airside development, and regional and local governments manage landside development. Legally, MLIT is not even allowed to be involved in landside development, while regional and local levels were not involved in airside development of Haneda and Narita, despite the clear impact of airport development on these lower levels of government.

Japan's mindset of centralisation and dependency has deep roots and is embedded in all institutional levels. Sorensen (2002) even considers the dominance of central government as one of the five core characteristics of Japan. If local governments receive more legal authority, this is compensated by strict control or fiscal centralisation. Planners at the national level tend to distrust local planners, who are considered to be too vulnerable to use funds for the appropriate aims (*ibid.*).<sup>1</sup>

Despite the existence of decentralisation policies, few things have changed for the local and regional actors involved in the case of Narita and Haneda since the introduction of decentralisation (Interview Yamada and Kawaguchi 2004). Chiba remains the main negotiating partner for companies. In recent years, Chiba has also led business park projects near the airport (Interview Tanizami and Kumuda 2004). Cities of moderate size such as Narita and Kawasaki have seen few changes in the decentralisation process during the last fifteen years and remain dependent on airport authority and national government acting (Interviews Yamada and Kawaguchi 2004; Suzuki and Muramatsu 2004).<sup>2</sup>

The construction of Centrair International Airport is not directly managed by MLIT and therefore considered an exception. Within the current policy framework, it is not expected that this decentralised Toyota management model will be repeated elsewhere, but a success of the chosen institutional arrangement might lead to a break with centralised institutional lock-in for other public works. Furthermore, this case fits in the decentralisation of capabilities and responsibilities as one of the core policies and central challenges for the Koizumi government.<sup>3</sup>

#### *Regional cooperation in Frankfurt Rhein-Main*

Problems in vertical institutions of governance in a federal state like Germany are different from the discussion on centralisation and decentralisation in the Netherlands and Japan. Because of Germany's constitutional structure, the federal level is not actively involved in either airport development or airport area development. For this reason, the analysis in this section is limited to vertical coordination institutions at the state and local levels.

For airside development, the administrative district of Darmstadt has the final say, followed upon political agreement at the level of the state of Hessen. Landside development is considered a local issue for the city of Frankfurt and bordering towns. For instance, in the case of the AIRRAIL Center, Hessen's Ministry of Construction is not involved in the planning process. The AIRRAIL Center is considered to be an urban design project of the city of Frankfurt. Project manager Klärner can write his plans, submit it to the city hall, while receiving a signature within three days from the project development department. This department defines itself as:

Mr. Buchholz (City of Frankfurt): *"The project development department is a special counter where every project developer demands a specific product, which we try to deliver within days."*

Cooperation on the regional level has a problematic history (see chapter 6), in particular the transfer of planning competences from the local to the regional level to avoid a 'tragedy of the commons' in a rapidly urbanizing city-region. A crucial explanation of the inefficiency of regional cooperation is the lack of interest shown by the state of Hessen within a stronger Frankfurt Rhein-Main city-region, which can make the state of Hessen a superfluous governmental level as the government levels will overlap (Esser 2004). The inequality between the Hessen regions is not the only reason for a lack of interest, but the threatening superfluous state itself. It is unlikely that Hessen, like other layers of government, is willing to transfer power to other regional authorities.

The problem of transfer of authority touches upon the more general problem of the large number of governmental layers involved in planning: not only communities, but also *Kreise*, *Regierungsbezirke* and the state of Hessen are involved in planning. Most interviewees considered this as too much and doubted the necessity of involvement of administrative districts and *Kreise*.

Mr. Schultheiss (Frankfurter Rundschau): *"Times have changed and the Kreise are now the most frustrating factor in regional development and projects."*

The *Kreise* were first created in the Prussian era, when villages were too small and incapable of self-government, set under authority of the *Landrat* of the *Kreis*. Since the counties have become an irrelevant level of coordination today, most strategic actors interviewed tend to favour abolishment of these counties or favour transfer their planning powers to the communities or

the regional level. Although the interviewees furthermore doubted the need for administrative districts, they objected to abolish the administrative districts in order to avoid direct conflicts about financial redistribution between northern, central and southern Hessen.

In sum, the vertical institutional analysis in this section shows that in the Netherlands and Japan centralisation developed (subsidy) path-dependent mindsets for lower levels of government. However, financial decentralisation in the Netherlands demonstrates some signs of institutional change. In airport area planning, centralisation is stricter, but the recent experience with Centrair might be an institutional innovation for Japan. In contrast, Germany lacks these problems of sharing planning responsibilities, but this led to a lack of cooperation on the regional level, in particular complicated by the number of regional governments and municipal competition.

### 9.3 Horizontal institutions of governance

The analysis of vertical institutions of governance raises two crucial issues. First, this section discusses the coordinating role of Ministries in airport and airport area development at the national level between the ministries. Second, this section analyses cooperation between municipalities at the regional level, where conflicting interests in the field of infrastructure, economics, urban planning and the environment become apparent.

#### *Interdepartmental competition and airport coordination*

According to Priemus (1999), competition between policy-making sectors in urban and regional development is considered to be a persistent problem in the Netherlands. Every ministry involved in planning creates its own national plan for the urban development of the Netherlands. The Ministry of VROM's advisory council argued that the Ministry did not give enough attention to infrastructure and economic interests in the preparation of the Fifth Memorandum on Spatial Planning (VROM-Raad 2001). Also, the Ministry of Economic Affairs and the Ministry of Transport and Water Management developed their own long-term vision plans. The conflicts of Ministries involved in Schiphol area development were severe in the 1990s, in particular the conflict of developing the economic impact of the airport versus environmental interests in the vicinity of the airport.

However, horizontal coordination problems are not only due to ministerial bureaucrats who are not willing to co-operate with colleagues at other ministries, a frequently heard argument. The political reality and the ministers' ambition are crucial for the lack of interdepartmental cooperation, not merely unwilling bureaucrats locked-in in the own ministry.<sup>4</sup>

The interviewees mentioned that cooperation among ministries has improved recently, as found in integration sector policies in VROM's latest national planning memorandum (VROM 2004). VROM considers this national report as a cross-sector umbrella with further sector elaboration in the reports *Pieken in de Delta* of the Ministry of Economic Affairs (2004) and Ministry of Transport's *Nota Mobiliteit* (2004, Interview Vink 2005). Nevertheless, VROM does not have a financial budget to empower and enforce the leading role it aspires, while the Ministry of Transport does have financial resources available.

In the case of Schiphol, cross-sector cooperation can be found in the infrastructure-oriented policy in the 1990s, which changes into a broader mainport policy of:

*“The connectivity and synergy between the international airport Schiphol and the surrounding international metropolitan business environment. It is an important pillar for the international competitiveness of the Randstad”* (Netherlands Ministry of Transport 2003:2).

The Ministry’s mainport policy not only addresses airport infrastructure, but also metropolitan business environment and international competitiveness. The airport is not only considered as necessary infrastructure, but can develop as a cityport in a city-region. However, the policy does not address environmental and other local concerns. The coordinating role in airport policies becomes apparent, with the Ministry of Transport and Water Management being the formal coordinator of the mainport project, and the VROM Ministry evaluating the noise effects according to Aviation Law. The continuing lack of coordination in the case of the Schiphol dossier has led insiders to suggest a specific Schiphol minister who is responsible for overall coordination.

Both Ministry of VROM and the Ministry of Transport and Water Management claim that their Minister should be in charge of overall policy. The Ministry of Economic Affairs is regularly set aside as a Ministry that should be closed, as concluded in a recent study of the temporary governmental economic advisors board, whose remit is to advice on de-bureaucratisation (REA 2005). An argument in favour of a continued role of the Ministry of Economic Affairs in the airport debate is that actors generally overemphasise environmental problems (sour), while economic interests (sweet) are underestimated (Interview Kerckhoff 2005). Either the Ministry of Economic Affairs or the aviation sector in the growth coalition should clarify the trade-off between airport development, airport spin-offs and environmental problems, Kerckhoff argues. This would re-establish the role of Economic Affairs in the Schiphol debate.

In the meantime, the Ministry of Transport is redefining its role to a more distant and supervisory role, rather than being involved in promoting the aviation sector. This strategic change can be partly explained by decreasing inter-sector competition within the Ministry of Transport, as a result of the merger of the departments of freight and civil aviation. Ministries are thus re-arranging and re-inventing their actual and desired role in the Schiphol institutional arena, including a search for leadership in mainport policy.

The issue of inter-departmental competition and the leading role of national government in airport development is not only apparent in the Netherlands, but also in Japan. Johnson (1982) found that in the era of the developmental state, the Ministry of Trade (MITI) fulfilled a crucial role in nurturing industrial development, whereas in Western countries, governments tend to simply set the rules. MITI was the driver of economic successes in the 1960s and 1970s and thereby minimised the role of other ministries. MITI competed and co-operated effectively with the liberal democrats (LDP), the Ministry of Finance, Ministry of Post and Telecommunication, Bank of Japan, the Economic Planning Agency and *keiretsu* business groups, while excluding other actors and outsiders. Ministerial competition among bureaus within ministries sometimes discouraged new market needs or delayed innovation.<sup>5</sup>

Although Johnson emphasises the role of MITI, the ministries of Finance and Transport are other powerful and relevant ministries in airport area planning (see chapters 6 and 8). Conflicts

between ministerial departments are also running through the sectors of urban planning and infrastructure. Before their merger in 2001 into the Ministry of Land, Infrastructure and Transport, urban planning and infrastructure public works construction were separate worlds. During the 1970s and 1980s in particular, it became clear that several infrastructure projects were not economically viable and had a devastating effect on the local environment (Sorensen 2002).

As yet, it remains unclear if the merger of the ministries into one spatial-economic unit contributed to better inter-departmental cooperation. Initially, the merger led to different 'tribes' inside MLIT: on the one hand, the majority of the old transport bureaucrats focus on completion of already initiated infrastructure projects, including the second runway for Kansai International Airport. On the other hand, the substantial minority of younger bureaucrats also take environmental, economic and financial elements of public works into consideration (Anonymous interview 2004).

As in the Netherlands, the discussion on the lack of cooperation and the merger of ministries in Japan is reflected in political reality. The merger can be seen as breaking down the dominance of the former Ministry of Transport, enforced by a reduction of ministers and initial conflict over the dominant policies within the new ministry of MLIT (Interview Suzuki 2004). The merger has increased the power of the Ministry of Finance. In contrast to MLIT, the Ministry of Finance prefers not to give out infinite loans for airport construction, especially after the Kansai International Airport debacle. It also favours privatisation, as recently achieved at Narita International Airport, and supports a reduction of financial dependence, as achieved in the case of Centrair.

In the Frankfurt Rhein-Main airport area development, inter-departmental competition runs more smoothly than in the Dutch and Japanese cases. The departments merged in 1995 into one Hessen Ministry of Economy, Transport and Regional Development, in which all relevant sectors are combined. Although the Hessen Ministry of Environment is not without conflicts, these are considered minor compared to the lack of regional cooperation among municipalities (Interview Müller 2003).

Sectoral pillarisation is considered to be problematic in Frankfurt Rhein-Main, where the project is not accommodated in a project team at the local level. Even though Frankfurt city bureaucrats are well trained, they do not necessarily work in the interest of project realisation, but prefer to defend their own specialisation. The hierarchic tree structure of local government ensures that these specialists lack a general overview since they are wheels within wheels.<sup>6</sup> The current coordination problems within the city bureaucracy led to the more innovative and efficient operation of smaller municipalities, despite their less well-trained staff, compared to cities like Frankfurt (Interviews Schien; Messener and Sachleber 2003). However, in the case of complicated projects, such as the AIRRAIL Center, the project manager praised the support and the quality of cooperation with the city of Frankfurt (Interview Klärner 2003).

The lack of cooperation and fine-tuning between departments is perhaps an unavoidable coordination problem. According to Boltze, even re-organisation is not a solution, as it will create new coordination problems in other policy fields (Interview Boltze 2003). More frequent and flexible communication is necessary between sectors at all levels, particularly higher levels of decision-making.

In sum, competition between ministries is a common problem in policy-making. Competition is not merely a matter of bureaucrats unwilling to co-operate, but also involves a political clash. The merger of ministries in Hessen and Japan represents interesting institutional changes. In Japan, the merger happened as a result of a sense of urgency among dominant ministries. In the Netherlands, ministries sought closer cooperation, albeit with mixed results. The following section continues the analysis of this puzzling process of dealing with spatial and economic developments at the national level.

### *Regional cooperation*

This section analyses the second area of horizontal governance institutions, regional cooperation. Regional cooperation is a problematic institution of governance. Its focus on territory and government policy has been a subject of debate for decades, with shifting ideas based on planning practise experiences (see for instance Barlow 1991, WRR 1990, Heinz 2000, Salet *et.al.* 2002). Chapter 2 and 6.2 introduced and discussed the history of regional cooperation and coordination for the case studies. The discussion on institutional arrangements in regional cooperation in this section is limited to the impact on spatial-economic airport area development. Cooperation among local communities at the regional level has caused complications, particularly in the case of Frankfurt Rhein-Main and Randstad.

In Frankfurt Rhein-Main, tax competition is a difficult financial institutional arrangement (as discussed in chapter 8), which needs to be considered in a wider context of the problems of regional cooperation. The *Ballungsraumgesetz*, creating the *Planungsverband Frankfurt Rhein-Main* replaces the faltering regional cooperation arrangement in the era of the *Umlandverband Frankfurt* (UVF). This arrangement combines a larger and more relevant territory, including municipalities surrounding the airport, but it has limited planning authority.

The regional planning association has a – for Germany unique – competence to draw up the regional structure plan, which transfers the final decision on new site development from the municipal level to the regional level.<sup>7</sup> Eastern counties, in particular Wetteraukreis and Main-Kinzigkreis, oppose the plan, as they are afraid to lose vital planning jurisdiction. Also, municipalities near the airport hesitate to transfer local planning competencies to the regional level.<sup>8</sup> The airport's neighbours worry that decisions of regional interest might either increase noise pollution near the airport, or stop these communities from taking advantage airport economic spin-off in the *Speckgürtel*.

Furthermore, the lack of regional cooperation in the region produces financial problems for the city of Frankfurt, which offers, and pays for, most services in the region, e.g. opera, stadium, etc. This situation also leads to lock-in situations and unwillingness to cooperate. In planning the *Regionaltengente West* light rail that connects the airport to other communities in the west of Rhein-Main, mayors use blackmail tactics: 'if you don't pay for renovating our stadium, we don't build your missing railway.'

However, as can be seen in the case of interdepartmental competition, the lack of cooperation and coordination is also reflected in political reality. The SPD preferred more regional planning competencies, but was itself unable to implement its ideas for a county at a larger scale (*Regionalkreis*). These *Regionalkreise* would consist of four or five cooperating counties and would have reduced the current large number of counties (Heinz 2000, Freund 2003). Currently, however CDU and FDP govern Hessen. The CDU/FDP coalition introduced



the *Ballungsraumgesetz* of regional coordination, but this arrangement was flawed, whereas the SPD seems to consider that a 'bad law' is better than no law at all (Interview Harting 2003). As a result, the vertical institutions of governance in Frankfurt Rhein-Main demonstrate path dependency of being unable and unwilling to improve regional cooperation or coordination since the era of the independent cities (*Reichsfreie Städte*). In particular, forced municipal rearrangements and mergers increased distrust of the regional level, e.g. the case of Bergen-Enkheim, Maintal and Bad Homburg. Small communities are aware of coordination problems, but view mergers as a bad medicine for solving these problems (Interview Schien 2003).

In the case of the Randstad, regional cooperation is problematic in different ways. In the Randstad the problem of tax competition is absent. The scale increase of activities however makes the regional level the current appropriate level of planning and the institutions of governance are not yet prepared to deal with the problems that come along with this scale increase (cf. Janssen-Jansen 2004).

In order to make the government structure fit to the new socio-economic realities, various governmental bodies made attempts to restructure local and regional government. The plan for a city-province (*Stadsprovincie*) failed because of a lack of support at the national level and a lack of support from citizens, who opposed the plan to split up of the municipalities of Amsterdam and Rotterdam into smaller units within the Stadsprovincie. According to Kreukels (2000:486), although there no clear winners or losers in the debate on the introduction of a city-province, at least the major cities lost their ambition to lead and dominate the region. In later years, other plans to create regional authorities more or less failed: for example, the regional public organs *Kaderwetgebieden* and provincial mergers, as proposed by the Committee-Geelhoed (2002). In addition, in 2005 and 2006, the Minister of Home Affairs attempts to merge the provinces of Noord-Holland, Zuid-Holland, Utrecht and Flevoland in order to make the Randstad internationally competitive (see chapter 2.8 on the formation of city-regions).<sup>9</sup> Currently, the Noodvleugel discusses and introduce more informal and sector-oriented forms of intra-regional coordination in the Northwing of Randstad.

These problems in regional cooperation are also relevant for regional cooperation in the Schiphol area, which is located in the border area of three provinces, which have limited steering power and equipment. As discussed in section 6.6, several regional cooperation bodies are involved in the Schiphol airport area. The province of Noord-Holland has a coordinating role, but lacks power and equipment necessary to have a leading role in the Schiphol area planning process.

Examples of regional cooperation bodies involved in the planning process are *Bestuurlijke Regiegroep Schiphol* (BRS), *Bestuursforum Schiphol* (BFS), *Regionaal Orgaan Amsterdam* (ROA) and *Commissie Regionaal Overleg luchthaven Schiphol* (CROS). As argued in Chapter 6, these arrangements complicate regional decision-making, particularly since these public bodies have limited decision-making powers (Committee De Grave 2005). In order to introduce policies, all of these organs should be consulted before further steps can be taken. In practise, this leads to an impossible formal working situation, circumvented by informal meetings (Interview Meijdam 2005). The same actors meet each other regularly at different locations in different sector meetings, each with a different role (Comm. De Grave 2005:6). These meetings are not transparent and democratic, and depend on the personal cooperation of the actors involved or "old boys" networks (Siddiqui 1997). One of the effects is the delay of industrial and office

site development caused by sector competition at the regional level, with a lack of integrated planning procedures and an unwillingness to start procedures as long as the Ministries do not provide financial guarantees. Another effect is the lack of an integrated approach as a result of the current regional policy arena. For instance, the secretary of CROS argues that CROS can only be held accountable on environmental issues and that it does not join economic sector meetings, since BRS is the actor involved in that. Although the actors agree that the current situation is far from ideal, it is still unclear why alternative governance institutional arrangements could not be implemented and empowered politically. The lack of decision-making power and in particular consensus culture can explain this lack of perseverance of institutional change.

A major additional problem in the patchwork of governance structures is that, in order to avoid political conflict, new public bodies are introduced without removing existing bodies. Teisman argues that the regional structure currently consists of so many organisations that every addition of a new governance structure complicates the current and thereby undermines the jurisdiction of existing structure (Teisman 2002). Due to path-dependencies and fear of actors to lose their current position, this lock-in situation can not be easily solved by institutional innovation. Ultimately, 'controlled chaos' is created in this regional patchwork with checks and balances, as no change is reached without consensus of the actors involved (Interview Weijts 2005).

Regional cooperation is also an issue in Japan. In the case of Narita, regional cooperation problems overlap with prefecture-municipality coordination problems. In the Chiba prefecture, many villages and towns are considered too small to act with sufficient authority, and are controlled by the prefectures. In the 1990s, eleven municipalities attempted to merge, but Narita opposed this merger. More recently, Daiei and Shimousa asked Narita to merge with them. Because this would lead to a wider distribution of airport tax revenues, Narita citizens opposed the merger (Interview Yamada and Kawaguchi 2004). Redistribution of tax revenues is therewith for Narita the winning argument over the potential stronger position in Chiba prefecture of a larger municipality.

In the case of Haneda, due to the dominant role of MLIT regional cooperation became fruitless. The city of Kawasaki wanted to co-operate with Tokyo, Ota ward and Yokohama on the development of the airport region, but all actors focused for any kind of decision-making on MLIT as airport island owner and operator (Interview Suzuki and Muramatsu 2004).

In sum, regional cooperation in the Tokyo Metropolitan Area, the Randstad and Frankfurt Rhein-Main has been problematic in different ways. Tax competition as a basis for the lack of regional cooperation is apparent in Frankfurt Rhein-Main, but surprisingly also in the Narita airport region. These problems are different from the patchwork of coordinating bodies with limited legislative power in the Randstad, and the absence of regional cooperation due to centralisation in the case of Haneda.

#### **9.4 Public-private institutions of governance**

During the 1990s and 2000s, awareness among policy-makers is growing that governments are not the only actors in policy-making, as private actors play an increasingly important role

in this institutional arena.<sup>10</sup> These networks of public and private actors are not new, but they are increasing in number and importance (Rhodes 1999). In this actor-oriented institutional analysis we focus on governance seen as a concept for the analysis of societal capacities 'beyond' government; there is no longer a strict separation between policy making by governments and market actors. Policy-making is increasingly characterised by interaction, bargaining, negotiation and entrepreneurship (Gualini 2001).

The engagement of economic actors in their organisations and networks is indispensable for improving governmental structures in the region as well (Kreukels 2000). As discussed in chapter 2, this engagement contributes to institutional competitiveness as a major component of regional economic competitiveness (cf. Hall and Soskice 2001). According to Salet *et.al.* (2002), the challenge for metropolitan policies is to find the keys to 'unlock the connections between different spheres of action', where the focus on strategies of connectivity of public and private actors and different levels of government with global economic and cultural networks is considered more urgent than formal re-organisation of local and regional governments, adjusted to boundaries of the new economic and spatial realities.

The analysis of actor coalitions in chapter 6 and the development of city-regions in chapter 2 has introduced the most important networks of actors in public-private institutions of governance in the city-regions. Section 2.8 discussed the shift from government to governance and the increasing importance of market actors in network formation alongside governments at the level of the city-region. This section focuses on the changing institutional arena of private actors involved in airport area planning.

The analysis of actors and actor coalitions in chapter 6 showed that the position and role of Schiphol Group in public-private governance is unorthodox. The role of airports in the Tokyo Metropolitan Area and Frankfurt Rhein-Main is limited to the role of airport authority. Airport authorities in Tokyo are generally hardly involved in area development. In Frankfurt, jurisdiction is limited and real estate development is usually contracted out to specialised developers.

In contrast, in the case of Schiphol, the Ministry of Transport is at the core of the airport development coalition, influencing policy-making in informal ways and being involved in the legal process of planning and implementation in the vicinity of the airport. The Committee De Grave (2005) argued that, on the one hand, co-operation among formal actors involved in the region has improved since 2000. On the other hand, the Committee Eversdijk (2006) reported that shown regional tensions based on a lack of trust. In particular here we point at effects of the joint public-private policy-making by governments and the airport authority can lead to conflicts in the institutional arena. The public-private institutions of governance in the Schiphol vicinity of the airport are problematic in three fields where Schiphol has a privileged position:

1. The position of Schiphol Group as a private actor in the Bestuursforum (BFS);
2. The position of Schiphol Group as shareholder of the Schiphol Area Development Company (SADC);
3. The exclusion of other private developers from the development coalition.

Firstly, in order to cooperate and initiate spatial and economic development in the Schiphol area, the *Bestuursforum Schiphol* (BFS) was founded. The BFS, chaired by the province of Noord-Holland, has no legal status and is composed of the municipalities of Amsterdam and

Haarlemmermeer, and Schiphol Group. BFS aims to designate locations, which are ready for urban development. The municipal councils take the final decision on these and the decision has to fit in the regional plan of the province.<sup>11</sup> Formally, the municipal council's final say, combined with the separate entity *Bestuurlijke Regiegroep Schiphol* (BRS, see chapter 6), without the participation of Schiphol Group should safeguard public interests from Schiphol Group's private interests. In reality however, tensions exist between the economic interests of Schiphol Group companies versus the interests of municipal land suppliers on the one hand, and on the other hand, the same actors are responsible for policy-making and coordination in the wider airport area.

Secondly, Schiphol Group also plays a – more passive – role as shareholder of SADC, the company that develops most designated airport-related industrial sites. The current attractiveness of the airport area to project developers, asset managers and end-users makes the playing field more problematic. Schiphol Group is formally shareholder, but Schiphol Real Estate as a competitor of SADC is closely related institutionally to the Schiphol Group.<sup>12</sup> Competitors already consider the monopoly position of Schiphol Real Estate in the airport territory as a disadvantage. The awareness of their setback position has increased since Schiphol Real Estate has become increasingly active outside the airport territory and competes with SADC, Chipshol and Mainland on the regional real estate market. Schiphol Real Estate and Schiphol have an privileged position, as Schiphol (as BFS member) not only knows where to buy land and how to choose timing, it can even co-decide on the locations that are proposed for development. According to the opponents of the current situation in public-private policy coordination in the region, this is a clear example of different rules for similar actors on the market, leading to unfair competition.

The main argument in favour of the privileged position of Schiphol Group in SADC and BFS is the fact that the airport and governments invested most in the airport and the vicinity of the airport infrastructure since airport's establishment at its current location in 1958 (Interview Bussink 2005). The public sector has the right to see a return on investment by claw-back constructions in the current constellation: why would land speculators near the airport pick the cherries without investing in the airport and infrastructure in the vicinity of the airport?

Furthermore, local governments are used to playing a dual role as policy-maker and land supplier, while at the same time managing potential conflicts of interest (see chapter 8). The potential dual role of the government as developer and arbiter is daily business for municipalities with public land development agencies.

Another argument brought forward in the interviews is the notion that Schiphol Group is an expert in airport-related development and would always protect the site for its core business, which implies that urban development will not harm aviation. Ultimately, the Anti-Trust Board NMa provisionally concluded that, in the case of Schiphol, there was no sign of monopolisation of development rights that needed further investigation..

The third problematic public-private governance institution is the exclusion of project developers in Schiphol area development. Actors that are not part of the airport area development coalition (see 6.6 and 6.7) argue that chances of regional co-operation are missed because they are excluded from several coordination platforms. Another complaint put forward by those excluded

from airport area development is that Schiphol uses its dominant and privileged position in relation to competing projects.

Two examples underline this argument: the legal conflict over the development of the Groenenbergterrein; and the test of airport-related activities in the vicinity of the airport. In the first example, the airport considered construction on the Groenenbergterrein as too dangerous for landing airplanes and therefore banned construction. When the airport and province had to compensate project developer Chipshol, the airport authority removed the ban on construction on the Groenenbergterrein. In the second case, regulations on testing airport-relatedness of activities in the airport area are not implemented very strictly in the airport territory as well as in the vicinity of the airport. These two cases of problematic legal institutions will be discussed in more detail below, in 9.7. The common factor in these cases is the conflicting role of Schiphol in hindering competing project developers and favouring its own activities by using debatable protection guidelines for aviation growth and checks on the airport-relatedness of the activities in the airport area.

In summary, public-private coordination is mainly a topic in the case of Schiphol. Arrangements such as SADC and BFS were major institutional innovations at the time of their establishment, because airport and local governments started to jointly develop the grasslands near the airport and thereby create more economic airport spin-offs. This model is a public-private institutional arrangement *avant-le-lettre*, despite its shortcomings. More recently, the efficient and effective institutional arrangement of the 1990s has shown signs of inertia and need of institutional change when the playing field of actors involved in area development became larger: in particular in the position of Schiphol in the Bestuursforum Schiphol and the position as shareholder of SADC, but also in relation to competing real estate developers.

## 9.5 International legal institutions

Legal institutions are the outcome of policies and politics, and set formal rules of the game for actors in area development. Legal institutional arrangements also administer juridical protection to actors and actor coalitions. This section discusses the international rules and regulations that set the playing field for actors involved in the development of the airport as a cityport in the city-region case studies. Within the international legal regulatory framework, airside and landside can be distinguished, with legal force at the global, European and national level.

### *Airside*

Since the Chicago Convention on International Civil Aviation in 1944, countries have complete and exclusive sovereignty over the airspace above their territory. Airlines, however, require access to airspace of other countries, but attempts to develop multilateral agreements have failed since 1944 (Malanczuk 1997, Mendes de Leon 1992). Therefore, a complex lobby network for lucrative bilateral agreements of access to air routes between nation states has developed.

The rapid development of aviation in Europe and the US forced a shift towards further liberalisation (see chapter 4). This shift concerns the nine 'freedoms of the air', is ranging from the right to fly over a third country, to the right to carry traffic between two points in a foreign country (Mendes de Leon 1992).<sup>13</sup> Since 1997, bilateral treaties are gradually replaced

by free competition inside the EU territory and by a continuation of bilateral contracts with countries outside the EU. The 'open skies' treaty between the US and eight European countries discriminated against other EU members according to a 2002 European Court of Justice ruling and needs revision. The European Commission should take over air space contract negotiation in the near future, which according to Burghouwt might challenge the international system that is based on bilateral contracts (Burghouwt 2005). These changes are critical, as the EU transport regime sets the playing field for airlines to develop their hub-and-spoke networks and to choose their hubs, which has a substantial spatial and economic impact in the city-regions.

The Chicago Convention is also the basis for the International Civil Aviations Organization's (ICAO) technical regulations over construction, operation, safety, and security aspects of airports. In recent years, economic interests became important, as airport charges need regulations, particularly in the case of regional monopolies. Within the EU, the regulatory framework for airport charges was further developed since 1985, based on the principles of non-discrimination by flight origin, cost relatedness of the charges and transparency (Graham 2001).

One of the most urgent issues for the EU today is creating a level-playing field for modes of transportation including competing airports, with complications arising from the wide variety of airport-airline institutional arrangements in the EU (COM 2001). In this context it might be possible in the long run to increase competitiveness and efficiency advantages as found in the US. In the European case studies the issue of the level-playing field became relevant after the merger of Air France and KLM. In the interviews, concerns were expressed that the relationship between KLM and the Dutch government would distant, while the French government and Air France would be closer, which would favour the competitiveness of Charles de Gaulle over Schiphol as a hub. The outlook is nevertheless that favourable economic conditions at Schiphol guarantee a serious role in the dual hub structure with Charles de Gaulle in the medium term.

#### *Landside*

It can be argued on the basis of the European case studies that EU regulation also plays a role in landside development of the airport area. In Germany and the Netherlands, EU environmental legislation is blamed for a focus on protecting rare species and reducing exhaust gases rather than contribute to the urban development process. The main problem in the Netherlands is not the directive itself (Directive 96/62/EG), but the self-imposed obligation that no single urban construction project can lead to deterioration of air quality. This effect is exacerbated by the fact that, in contrast to other EU member states, EU legislation has direct jurisdiction in the Netherlands. Currently, VROM attempts to solve this problem by allowing air quality deterioration at the regional level to be compensated for by general air quality improvement. Nevertheless, in 2005 major projects were halted by the Dutch constitutional court *Raad van State*.

International trade agreements force governments to accept international bids for large public works. Therefore, international tendering legislation is also relevant for airport infrastructure construction. After steel prices and car dumping, the construction of Kansai International Airport became the third major US-Japan trade conflict in 1987. Despite US pressure, Japan refused foreign constructors bids for the development of the airport island near Osaka. At a later stage, international bidding became part of the legal system in Japan, but, ultimately, informal institutions continued to hamper bidding and construction of public works, as could be seen in

the bidding process for the construction of the fourth runway at Haneda (see chapter 8). The vocational school of the Ministry of Transport, Land and Infrastructure in Kunitachi is currently the only public works built by foreign constructors (Interview Suzuki 2004)

In the EU, bidding regulations in the open market became more urgent with the merger and streamlining of tendering directives, and the lowering of threshold prices that require European tendering. Currently, EU-wide tendering procedures should be followed in case public works cost more than five million euro. All publicly financed actors – governments, public companies and utilities, universities and hospitals, are subject to this legal institution. In the future, it is expected that international competition in tendering processes will increase, widening the playing field of developers and investors, making the process more competitive with new opportunities for the airport as a cityport.

## 9.6 National legal institutions

In the decentralised nation-state of the Netherlands and Japan's unitary state rule making at the national level is a particularly crucial level for institutional arrangements that provide incentives or hurdles for the airport as a cityport in the city-region. The noise and safety regulations of airports, as well as building permissions near the airport are critical rules in this playing field. In harmony with international regulations, contours for airplane approaching routes are drawn in order to secure safety, environmental and noise protection.

Each case study discussed here uses different definitions for marking the safety- and noise contours. The permission for economic activities and building regulations within these contours also varies between the cases. In the case of Schiphol, as long as there are no safety risks, most activities and buildings are allowed in the vicinity of the airport with the exception of new housing areas. A comparable policy can be found in Frankfurt Rhein-Main, where new housing is less planned and happens at a larger scale. In Japan, only airport infrastructure and airside building near the airports were allowed until recently. This airport-infrastructure orientation is a legal institution that is directly relevant for understanding limited urban development in the vicinity of the airport.

In airport area development, legal institutions on the national level in particular focus on noise and safety contours surrounding the airport. Below we will elaborate on the different policies and their consequences in the three case studies.

### *Schiphol*

In the Schiphol area, a distinction is made between airport-related economic activities, other economic activities and housing as urbanisation. Permission for the construction of offices and warehouses in the airport territory is a legal issue discussed at the regional level (see 9.7). In the Netherlands, large-scale housing areas are designated at the national level, which is the focus of this section. The debate on housing areas and contours of noise and safety regulations are all closely related.

The aviation law *Wet Luchtvaart* (2003) is the successor of the 1995 *PKB Schiphol en Omgeving*. It is generally acknowledged that the PKB, a former direct binding national plan, failed due to the short time horizon and its failure to accommodate the rapid development of

aviation. The new aviation law was formulated in 2001 and became effective in 2003. One chapter of the aviation law focuses on Schiphol, the so-called *Schipholwet*. Two policy implementation directives (AMvB) support this Schiphol law: the airport aviation directive (LVB or *Luchthavenverkeersbesluit*) and the airport-planning directive (*Luchthaveninddelingsbesluit* or LIB).

Mr. Van Voorn (Municipality of Aalsmeer): *‘According to aviation law, major parts of Aalsmeer are considered to be uninhabitable, even though many citizens have lived here for decades’*

The airport planning directive LIB sets the borders of the airport territory on the one hand, (environmental and safety limits to the usage of Schiphol airport) and the limitations of land use on the other hand (for example safety zones, noise contours, construction height limits and construction limits for houses and businesses), in order to avoid concentration near the airport.

The airport aviation directive sets the environmental rules and regulations for the aviation sector, dealing with noise pollution, smells and gases, the usage of runways and approaching routes in air territory and safety measurements. The single implication for land use is the 35 KE (Kosten Units) noise contour with a ban on environmental sensitive land uses.<sup>14</sup> However, the PKB in the *Nota Ruimte* decided that, in order to avoid noise inconvenience for future citizens, new housing areas in the stricter 20 KE noise contour area (later included the border of the 20 KE noise contour) and therefore neighbouring large-scale future housing locations could not be build –

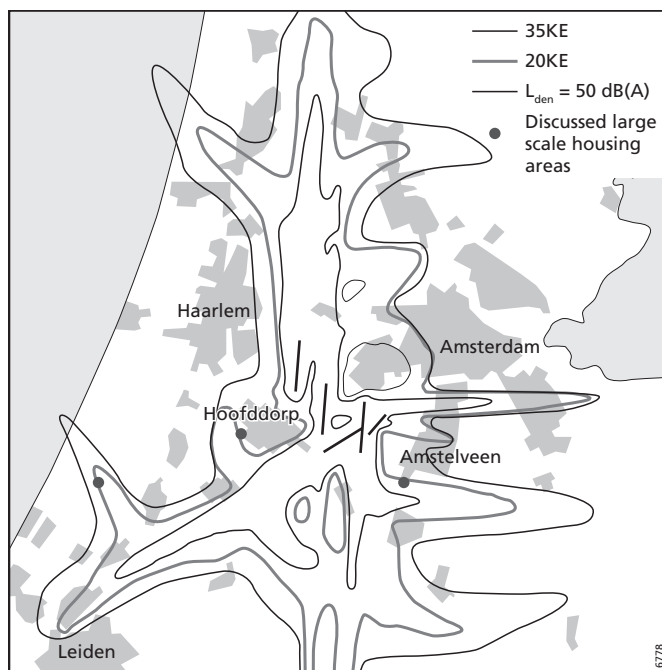


Figure 9.1 Noise contours of Schiphol Airport and potential housing locations (Source: Comm. Eversdijk (2005))



Hoofddorp-West in Haarlemmermeer, Legmeerpolder in Amstelveen and Noordwijkerhout (the black dots in Figure 9.1). This small policy change caused a lot of friction with the municipalities and province, which struggled in their efforts to achieve regional housing constructions goals. However, it has also led to more innovative housing policies with more intensive and mixed land use inside the cities instead of green-field development between towns and airport (see Gerritsen 2005).

The Committee Eversdijk evaluated the aviation law in 2006.<sup>15</sup> The results of the aviation law area are as disappointing as the PKB precursor, showing severe distrust between airport and environment. These results contradict the *dubbeldoelstelling* policy goals of environmental protection and aviation growth in which urban areas would suffer less from airplane noise and aviation could grow more rapidly. Many actors, however, including airport and environmentalists, are disappointed by the outcomes of the new aviation law. The airport itself considers the noise contours as rigid and too tight. Eversdijk (2006) proposed to change the calculation-based method of KE into the measuring-based method of  $L_{den}$  (Level day-evening-night), which is becoming the European standard. Furthermore it concluded that the aviation growth policy has fundamentally undermined local trust in fair and open policy-making. Amsterdam's noise pollution has significantly decreased since the opening of the fifth runway, but noise pollution problems for Aalsmeer and other smaller municipalities have worsened, while a new and wider area from Leiden in the south to Beverwijk and Castricum in the north are outside of the noise contours, but suffer from new aviation noise (Figure 9.1). The main causes of these problems are similar: the policy's aim was to defend environmental interests by creating technical and strict containment zones for aviation. However, in practice wind directions and aviation growth differed from what was expected in research and policy reports, which causes tensions.

A second problem in the Schiphol case is safety zones. As a result of the 1992 El Al airplane crash in Amsterdam, politicians agreed to increase safety in the Schiphol area. In this context, aviation growth, including further urban development next to the airport territory became socially and politically unacceptable. This is one of the reasons for not permitting construction buildings near runways and approaching routes, making it impossible to develop the Groenenbergterrein, for example. In the interviews for this project, project developers argued that this is a false argument, since it is very unlikely, in reality, that an airplane crashes just in front of the runway. For this reason, Schiphol and the Ministries of Transport and VROM are currently looking for more flexibility and freedom of movement in the system in general. The issue at stake is whether increased movement is just another step to open the way for airport expansion, which will lead to new noise and safety problems in the near future or that citizens will be receive increased protection through the new contours.

#### *Frankfurt*

Frankfurt Rhein-Main's adjusted noise contours from 62 db (A) in 1985 to 60 db (A) in 1998 are shown in Figure 9.2. The standard of noise pollution is lower than in the case of Schiphol, with roughly 50 dB (A) as its inner contour. A similarity between the two airports is the growth of the area affected by the airport between 1995 over 1998 to 2000. Figure 9.2 also shows that the entire surface of the Bischofsheim and Raunheim municipalities is affected by aviation noise, joint by large parts of Büttelbon, Flörsheim, Offenbach and Neu-Isenburg. This is different from

Schiphol, where the worst affected municipalities, such as Aalsmeer, are only partly affected by noisy airplanes.

Different from the Randstad, there are no large-scale housing policies in Frankfurt Rhein-Main, nor is there market pressure to develop housing near the airport. With an increase in flights as a major discouragement, the affected municipalities have shown a rapid population decrease of over ten percent since the 1970s, in contrast to Frankfurt Rhein-Main's average of 24% population increase (KSR 2000). Unorthodox measures, such as financial compensation, buying off complaints and demolishing houses, are common in the affected areas of Frankfurt Rhein-Main. This policy is different from the housing isolation policy in the Schiphol area, where buying off complaints was considered as 'immoral' until recently: citizens should be protected from aviation noise by the government (Raad V&W 2005, Interview Tan 2005).<sup>16</sup>

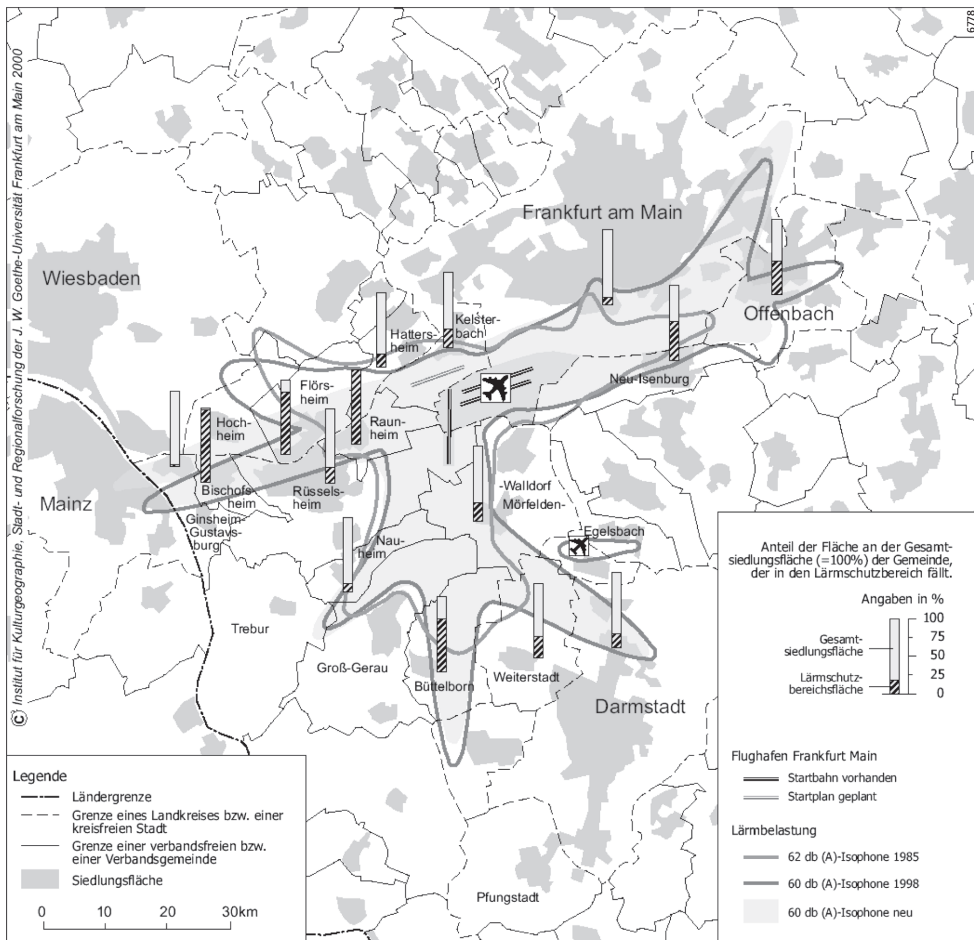


Figure 9.2 Noise contours of Frankfurt International Airport and affected areas (Source: KSR 2000)

The areas with a general building ban near the airport are more strictly defined than the noise contours shown in Figures 9.1 and 9.2. Local communities have challenged the borders of the building ban areas strategically, in order to limit future airport expansion. Darmstadt, for instance, is forced to concentrate in the built-up area because of the *Siedlungsbeschränkungsbereich* building ban (FR 7.11.2003). Kelsterbach and Raunheim oppose future airport expansion and even pro-actively designed a business site, located exactly in the centre of the landing route of airlines on the proposed new runway – the communities won this case in court, since their plans were first (FNP 16.12.2003). A similar effort by environmentalists in the Schiphol area to prevent the construction of the fifth runway by creating the new Bulderbos forest failed and had to be removed after court appeal (Smit 2001).

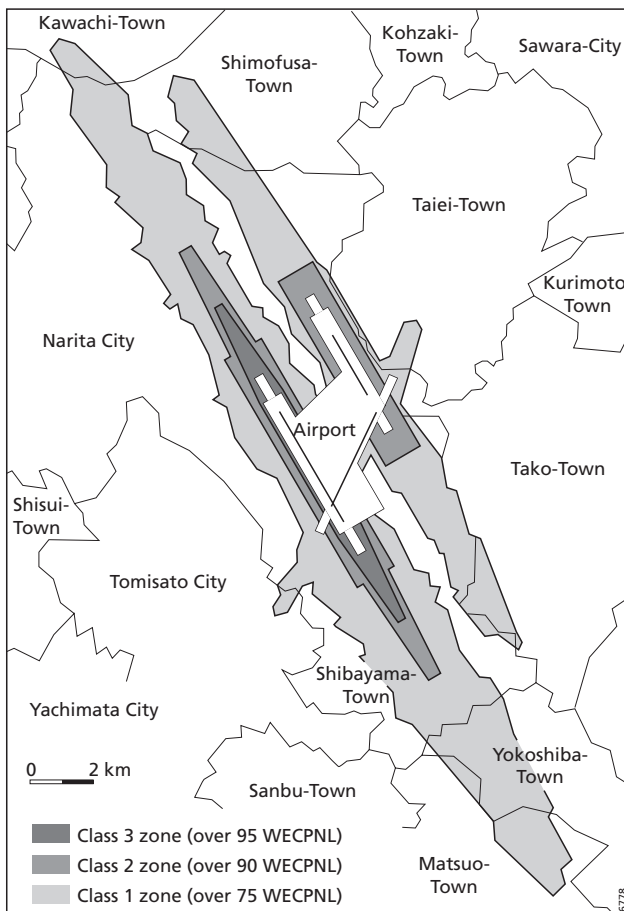


Figure 9.3 Noise contours of Narita International Airport (Source: Chiba Prefectural Government (2005))

*Narita and Haneda*

Noise and safety contours are also under discussion in the case of Haneda and Narita, despite their relatively remote locations. Japan uses the WECPNL standard to express noise levels: Weighted Equivalent Continuous Perceived Noise Level. WECPNL ranges from 95 near the runway, 75-90 with land use limitations and isolation to under 75 suitable for living (Chiba Prefectural Government 2005).<sup>17</sup>

At Narita International Airport noise problems were avoided by choosing a remote location 78 kilometres east of Tokyo. Figure 9.3 shows the impacts of the airport on the local rural area. The noisiest part of Narita with full compensation is category 3 in Figure 9.3 (WECPNL 95) and category 2 (90) in Narita and Shibayama. Category 1 (75) can also be found in Shimofusa-cho in the north, Yokoshiba-cho in the south, and Takomachi in the east.

Noise problems are increasingly problematic for Haneda, Asia's largest airport. Approaching routes currently harm the new waterfront islands, particularly housing in Odaiba (Figure 9.4,

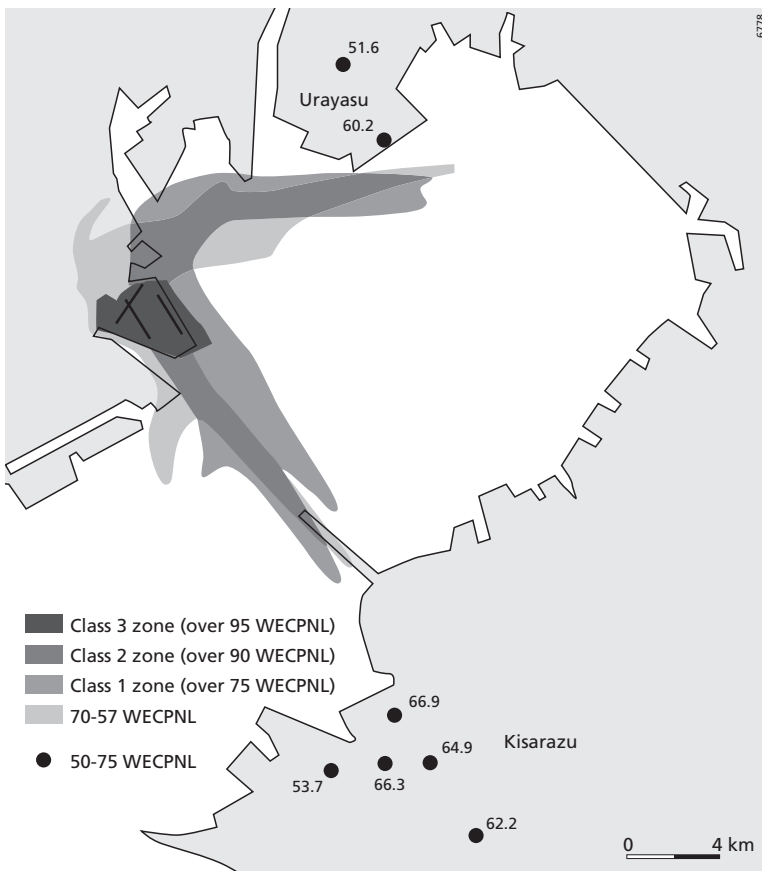


Figure 9.4 Noise contours of Tokyo International Airport at Haneda (Source: Chiba Prefectural Government (2005))

between WECPNL 70-95). The current three runways furthermore affect Chiba at the other side of Tokyo bay, in particular Kiserazu in the east (66.9, 66.3, and 64.9 in Figure 9.4), and Urayasu in the north (60.2 and 51.6) (Chiba Prefectural Government 2005). In addition, the planned fourth runway at Haneda would cause noise problems at the other side of Tokyo bay in Eastern Chiba. After local opposition, the direction of the runway in sea was changed slightly (Nikkei Shimbun 12.09.2004). However, because the Japanese Ministry of Transport's aviation department dominates the noise and safety zoning discussion, it needs less local support than is required in the case of Schiphol and Frankfurt.

Recent Japanese airport construction in Kansai and Chubu has shown some changes in airport noise and safety regulations. First, new environmental legislation was introduced in 1997, which has to be applied in the case of airport construction, including a strict assessment procedure before plans are approved. In the case of Centrair for example, the shape of the island had to be changed in order to deal with water flows in the Nagoya bay in an environmentally sensitive way, and fifty billion yen had to be paid to compensate local fishermen. In total, one-sixth of the construction budget was used for environmental protection, which strongly increased the cost of airport island construction. Critics argue that in particular local fishermen became rich as a result of financial compensation (Interview Ueda and Tsuchiya 2004). It has however not hampered further airport development, as the Japanese government primary focus remains economic development (Interview Noguchi 2004).

Secondly, and especially relevant for the airport as a cityport, airside and landside development is strictly separated through zoning laws, which are the most relevant legal institutions in Japan. Japanese Airport Law enforced in 1990 requires economic activities to be far away from the airport for safety and environmental reasons. This law was changed in 1998, allowing distribution and manufacturing near airports. Currently, economic activities and airport operation are not allowed close to Narita International Airport, but NAA continues to buy land, expecting that a more flexible Chiba prefecture will approve changes of land use for airport operation and related industries at a later stage (Interview Namekata 2004). At Haneda, the airport authority's competencies, rather than zoning laws are the main problem. The Japan Airport Terminal Co. is only allowed to manage the airport. The airport area is owned and managed by MLIT, but this Ministry has a primary focus on airside infrastructure and is not allowed to be involved in landside development according to the Japanese Airport Law.

In sum, noise contours vary between the cases, based on the existence of different measuring methods. In addition, urban densities vary, so the figures do not express the impact on citizens. In terms of legal institutions, the legal implications of the noise contours also vary among the cases. Although in all cases building bans and housing isolation regulations exist, financial compensation differs, and is increasingly discussed as compensation policy.

## **9.7 Regional and local legal institutions**

At the regional and local levels, the main legal institutional arrangements in urban and regional planning are structure plans and land use plans. As chapter 8 pointed out, land supply and land policy instruments can be important additional instruments, setting the playing field and co-

determining the development of the airport as a cityport. For this reason, this section focuses not only on local and regional land use plans, but also on legal instruments, such as expropriation, pre-emption, exemption, cost share, and benefit tax.

The economic activities allowed in the airport territory and the vicinity of the airport by the land use plans and structure plans vary between the cases as a result of the discussion on protecting versus exploiting airport sites (see chapter 4). In the case of Narita and Haneda, no direct building near the airport is allowed (yet). In the newer airport areas of Kansai and Chubu any kind of economic activity is welcomed and allowed, but land is still too expensive for offices, warehouses, distribution centres or manufacturers. The Frankfurt forest prevents urban development near the airports and pushes towards a polycentric airport city with centres in Rhein-Main (discussed in chapter 3 and 4), with former military sites near the airport under redevelopment. In the case of Schiphol, a strict separation has been made between platform-related activities, airport-related activities and non-airport related activities in the regional plan in order to make a balance between exploitation and protection of core activities.

#### *Schiphol airport area*

In the Schiphol airport area, three issues of legal institutions on the regional and local level are at stake. First, local land use planning is discussed. Then, legal conflicts over construction bans in airplane approaching routes are brought to the front. Finally, municipal pre-emption rights play a role in the regional debate of airport planning.

The regional plan *Streekplan Noord-Holland-Zuid* (Provincie Noord-Holland 2003) is not legally binding in a direct sense, but local land use plans should fit in the framework of regional plans for land use. Although Schiphol banned non-platform related activities in the airport territory until the beginning of the 1990s, it is now much more open to new businesses as an additional form of income for the airport. Considering the interests of the airport area in the long run, the *Streekplan* restricts land use in the Schiphol area based on airport-relatedness. With Schiphol as a centre, three circles were drawn for office and industrial locations with Schiphol relations.

1. Schiphol-Centrum is designated for platform-related activities and high-dynamic internationalised business services (the dotted area in Figure 9.5).
2. The locations Elzenhof, Schiphol-Oost, De Hoek-Noord and Badhoevedorp-Zuid are in circle two, which allows all activities of the centre plus aviation industry offices, airport-related offices, industries and distribution etc., where the added value or volume of goods is at least 25% air cargo (areas with double triangle in Figure 9.5).
3. The third circle allows all previously addressed activities and international operating companies in the areas Beukenhorst-Zuid and Beukenhorst-Oost-Oost, De Hoek-West, Zuidas, IBM-location, Riekerpolder and Oude Haagsewegzone (all other purple areas in Figure 9.5).

Distinguishing three zones encircling the airport is ideal-typical and eventually clear strategies, to avoid urbanisation near the airport. Planning practise in the airport region show partly different results more recently, nevertheless. The actors observed a loosening of the definition of airport-relatedness over the years. In the era of globalisation, it is hard to find economic activities that have no relationship with the airport at all. For Schiphol Real Estate, airport-relatedness is the main formal criterion for establishment in the airport territory, but in fact Schiphol Real

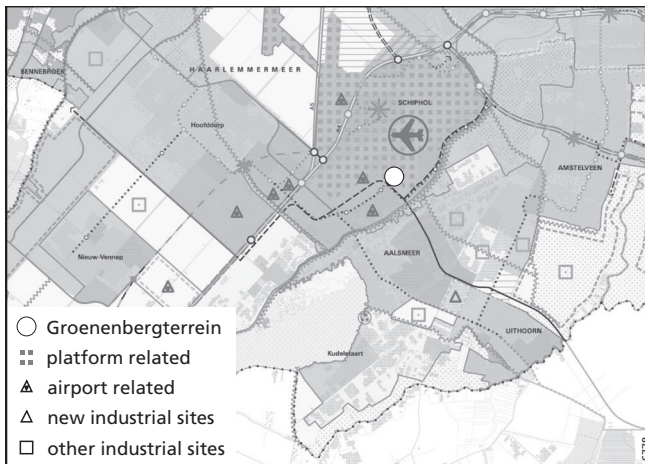


Figure 9.5 Schiphol area industrial sites in the regional land use plan (Source: Provincie Noord-Holland (2003))

Estate looks at the loosely defined added value of the business for the airport city concept (Interview Mast and Schaafsma 2005).

The province of Noord-Holland, as a supervisor on SADC sites, has also expressed criticism of the degree of airport-relatedness of business activities (Interview Bijvoet 2005). In spite of this, project developers praise the flexibility of the airport-relatedness concept, which serves to keep the mainport area competitive, and criticise the stricter and slower bureaucracy and legislation in the case of Frankfurt compared to Amsterdam (Interviews Wade 2005; Peters 2005; Sodekamp 2005). The increase of car traffic in the region attracted to the business sites, whether airport related or not, is, however, of increasing concern.

The second issue in the airport region on the regional and local level at stake in the Schiphol area is the legal conflict between project developer Chipshol and Schiphol Group. This legal conflict touches institutional problems as well; as for Schiphol several interests and roles are at stake, including protecting aviation as core business and real estate development. Chipshol's aim is to develop business parks and already in the 1980s bought land close to the airport.

In 2002, Chipshol asked the municipality of Haarlemmermeer for permission to build at the Groenenbergterrein on land that it already owned (see figure 9.5). The Groenenbergterrein is located directly near the Aalsmeerbaan runway and the airport was worried that approaching routes would become less safe when warehouses were built at the planned location. The municipality of Haarlemmermeer first refused a building permit, but later allowed building at the site. The reason was a 'legal loophole', so the building permit had to be provided (Ministry of Transport and Water Management 2005, see for a detailed legal discussion Duivesteijn 2006).

However, Schiphol informed the Ministry of Transport and Water Management about the building permit and a rarely used building ban was issued. The planning directive used in this case was prepared within a week. The Ministry however, accepted other constructions with a provisional building permit, such as the new air control tower.<sup>18</sup> Chipshol legally objected to the

building ban but withdrew the objection after an official advisory committee on aviation safety recommended a continuation of the building ban.

Project developer Chipshol indicted the province of Noord-Holland and Schiphol Group in court for her financial loss of €97,2 million. The material damage (*planschade*) was proven and the defendants Schiphol and Noord-Holland were ordered to pay (Court of Haarlem ruling, 12-1-2005). According to Article 50 of the Schiphol Law, the construction prohibition has to be paid by Schiphol, but Schiphol claims the Ministry of Transport should contribute to the costs. A specialist committee set the level of financial compensation at €16,8 million. Chipshol's CEO Mr. Poot has challenged the independence of this committee, since the two of its members, Mr. Toornend and Mr. Bekvers, have close contacts and/or are former employees of Schiphol Group and the Ministry of Transport (Vastgoedmarkt 2006).

Remarkably, in October 2005 the Netherlands Air Traffic Control withdrew its safety concerns, since no claims of potentially dangerous situations could be proven (Vastgoedmarkt 2005). As a result, in 2006 Chipshol claimed €30 million from the Ministry of VROM and €67 million from the air traffic control NVNL (PropertyNL 2006). In the meantime, Chipshol has started to prepare another legal battle over the area Badhoevedorp-Zuid, where Chipshol owns 110 hectares of grassland, where it plans its own airport city, inspired by Atlanta. At the same time, Schiphol is hoping to develop the land, of which it owns 85 hectare, for a second terminal (NRC-Handelsblad 11.05.2006).

The continuing legal battle over the Groenenbergterrein and the (suspected) entanglement of interests of Schiphol, Schiphol Real Estate and the Ministry of Transport is a much-debated issue. The Ministry of Transport (2005) emphasises that there is no conspiracy between the Ministry and Schiphol, although one could argue that the airport in this case uses the Ministry of Transport for public backing, indicating conflicts about role differentiation. Furthermore, the legal conflict raises questions over the position of Schiphol Real Estate as a competitor of Chipshol, but likely to be backed by the Schiphol as airport authority. In all cases, an unclear role differentiation is at the heart of institutional problems, but suspicion and distrust as a result.

A clearer role differentiation can be found in Japan and Germany, as opposed to the situation in the Netherlands, where the active role of local and regional governments tend to lead to tensions between the government's role as supervisor and developer (see 9.4). Provinces and municipalities use their legal authority to realise their own goals, which is sometimes seen as abuse of public authority by private developers. For instance, the province has delayed a Schiphol land use change approval in order to force the airport to contribute more to the N201 road bypass (Interview Mast and Schaafsma 2005).

Third, another legal conflict emerged when Schiphol bought land to develop just before the land had to be sold to the municipality of Haarlemmermeer in 1999. In the Netherlands, municipalities have the first right to buy agricultural land for development. This municipal pre-emption right (*voorkeursrecht*) assures land at reasonable prices to be developed for housing. Thirty minutes before the law would be enforced, Schiphol bought the land and this could be seen as a case of illegal advance knowledge. In 2006, the Haarlemmermeer municipal council proposed a motion to further investigate this case (Vastgoedmarkt 2006a), but the Public Prosecutor dropped the case since there were no signs of unlawful prescience (ANP 2006).



The legal issues analysed above should also be viewed in the light of the general discussion about the revision of the Spatial Planning Act (WRO) in the Netherlands. The current act, enforced in 1965, needs further adjustment to the current spatial and economic dynamics (see chapter 6). In the case of Schiphol, three crucial elements of the new Spatial Planning Act are at stake.

Firstly, land use changes within the legally binding land use plans should be more flexible, up-to-date and transparent, and should be made available electronically. For Schiphol, although land use plans officially need be revised every ten years, only an outdated 1967 land use plan is available. Most updates of the land use plan are made by the WRO Article 19 exemption procedure, which is currently under revision. Shorter planning procedures with fewer appeal moments are also expected to be included (VROM 2006). The VROM-Raad (2000) also recommends a more important role for dynamic local structure plans, which would return a balance between projects and plans, or, in other words, between spatial dynamics and legal securities.

Secondly, the municipal pre-emption right needs a wider legal remit (*ibid.*) in order to avoid land speculation as in the Schiphol case. Furthermore, the proposed tax or cost-sharing instruments are difficult to use in planning practice, when governments invest in infrastructure, leaving free riders to take most of the economic advantage. In the Schiphol area, developers like Chipshol are considered to be land speculators and they benefit from investment in the airport without paying for the infrastructure themselves. The interviews show that this free-rider problem and the lack of claw-back constructions are the main reason that Schiphol Group and public actors co-operate in developing the land, while tending to exclude commercial actors.

Thirdly, another potential effect of the revised Dutch WRO is the possibility that the national government will start defining land use plans when national interests are at stake or when regional and local actors cannot agree on the land use plan – a likely scenario in the case of Schiphol's development as a mainport. The question is whether this indicates a general tendency to increase control at the national level and whether this will leave enough space on the playing field for local actors to manage major projects.

#### *Frankfurt Rhein-Main*

In Frankfurt Rhein-Main, actors favour the bottom-up approach (*Gegenstromprinzip*): if local developments do not fit in the regional frameworks, the community can convince the Planungsverband and the Regierungsbezirk of the need to change the legal framework.

As in the case of shared interests in the Netherlands, land can be expropriated or the owner has to prove its ability to build the planned project. Land expropriation and the first right to buy the land for municipalities is more problematic in Germany and Japan than in the Netherlands. Almost all land is in private hands in Germany, making it harder to steer developments and making expropriation necessary. Expropriation of landowners on the ICE-railway track Köln-Frankfurt lasted over ten years. The city's right to buy land (*Vorkaufsrecht*) is rarely used, as the financial risks are often too high.

Shortening planning procedures and limiting moments of court appeal are also at stake in Frankfurt Rhein-Main. The public participation processes started in the 1970s disappointed many actors. Public participation is also frustrating rail infrastructure development (Interview Lunkenheimer and Stanek 2003). The groups participating in the process are mainly and frequently environmental groups or political parties that oppose the proposed plans.

Mr. Schien (Neu-Isenburg): *“The activists are the same: the young students who tied themselves to the western runway in the 1970s became family men and now go to court to complain about the new runway. The current younger generation doesn’t mind airport expansion.”*

The participation models appear to have failed and need new input, using information technology, for example. When planners propose rough outlines, the public does not express an interest, often inhibiting the realisation of ambitious goals. When planners present concrete plans, the audience tends to think that the plans are already finished and cannot be influenced anymore. One can create a sense of understanding, but citizens will ultimately oppose plans that harm their interests (Interview Rautenstrauch 2003).

Mr. Sachleber (Bouwfonds Frankfurt): *“Maybe I am a typical German when I find that every law defends a particular interest.”*

These quotes underline the importance of the rule of law and fits to the legalistic style of Germans over Dutch and Japanese consensus orientation.

#### *Narita and Haneda*

In Japan, the most problematic legal institution is land ownership and expropriation. Despite what is often argued, land ownership did not become a problem after American intervention and the resulting emphasis on ownership rights, but as a result of the deep-rooted historical and cultural meaning of land ownership in Japan (Sorenson 2002). As embedded in the Land Expropriation Law, land can only be expropriated in the case of crucial national interests. The project planner can ask for recognition by the Ministry of Transport, Land and Infrastructure, which then sets the extent of land needed, how it will affect the public and the environment, the exact list of interested parties, and how much compensation the owner deserves (Kotaka *et.al.* 2001).

However, the violent opposition against the Narita International Airport construction has undermined the implementation of this law. After violent personal attacks, the Chiba Expropriation Committee withdrew and never returned nor became re-installed (see also chapter 4.3). Expropriation was discontinued and MLIT and the airport authority chose to use a communication and consensus model. Since legal opposition to the airport was no longer an option, violent opposition has created a precedent for not using expropriation laws in Japan after 1988. If necessary, railroads or highways are diverted or by-passed but this cannot be done in the case of airport runways, so Narita International Airport has to wait for landowners to sell their land voluntarily and negotiate about the land price.

Furthermore, the Japanese Airport Development Law strictly separates design and construction of airports.<sup>19</sup> MLIT sets building standards and is obliged to make the design itself, before constructors can bid for the project. Although the design has to be made by MLIT, the ministry hires consultants as in-house engineers. These engineers do not only have an interest in finishing the project, but are also interested in obtaining more and continuous work and in retaining their status as hired expert inside MLIT.

According to insiders, the separation of construction and design by law and the role of in-house engineering consultants are a key to understanding institutional problems in the

construction industry. Among other political considerations, the problems of in-house engineer consultants and job dependency is illustrated by the efforts of MLIT policy makers to keep Haneda airport under governmental control and not to privatise the airport. Perhaps an even more problematic legal institution is the fact that many governmental interventions are not clearly supported by law. In Japanese airport area development there is neither free market competition, nor clear rules that manage the bidding and development process (Interview Noguchi 2004). The lack of competition and clear rules exists despite the growing importance of *kiyoi-seiji* ('clean politics') in public management during the 1990s, which aims to make political and bureaucratic intervention more transparent and to provide a legal basis.

## 9.8 Conclusion

In order to discuss the factors that determines the institutional position of the airport as a cityport in the city-region, this chapter focused on institutions of governance and legal institutions for the three case studies. This actor-oriented institutional analysis is complementary to the socio-cultural, financial and economic institutions discussed in the previous chapters.

Vertical institutions of governance vary from decentralised to centralised. In the case of Schiphol, airside development is a task for the Ministry of Transport. Landside development is a local and regional task, but the national level (VROM) regularly interferes in issues such as designating large-scale housing areas and formulating noise contours. Although the current paradigm is 'Decentral where possible, central where necessary', trends of (infrastructure) budget decentralisation and planning centralisation (particularly in the case of projects of national interest) can be found in the Schiphol case. The role of the Ministry of Transport and Water Management in managing airside development has changed from development to a supervisory role. It can be concluded that Schiphol is currently moving from a centralised situation characterised by subsidy- and policy making dependence towards being a more mature and independent partner with its own budget authority and responsibilities.

Japanese policies also aim at decentralisation. Local budgets are already substantial, but ministerial approval is decisive in the planning process of new public works. Despite the existence of decentralisation policies, the dependency-mindset is deeply rooted in all levels of Japanese institutions; it is one of the core characteristics of the Japanese political system. The larger playing field at the local and regional level resulting from decentralisation is regularly compensated for by stricter control and budget restraints by the ministries, which hesitate to reduce control. However, airport privatisation at Narita and a private approach at Nagoya are signs of institutional innovations.

Vertical institutions in Frankfurt Rhein-Main are decentralised and clearly defined with few tensions between national, state and local levels. Problems arise at the regional level, where a number of actors compete in the implementation of government tasks: counties, administrative districts, regional planning associations, and the state of Hessen. Counties and administrative districts in particular are considered as out-of-date and superfluous levels of government.

The long tradition of problematic regional co-operation in Frankfurt Rhein-Main has led to an institutional lock-in, with a widespread sense of urgency but no signs of formal institutional

change. Since formal institutions (official governmental bodies and tasks) are unable to co-operate horizontally at the regional level, business interest groups, media and other actors are increasingly active in attempts to improve the business climate of the city-region. The start of informal institutional change has become more effective and might ultimately lead to formal institutional change. A similar problem in the case of *horizontal institutions* can be found in the Schiphol area of the Randstad, where governmental bodies have to co-operate at the regional level but hesitate to transfer decision-making powers. As a result, a large number of platforms for voluntary co-operation were set up, although with limited and opaque decision-making procedures. In Japan, regional co-operation is even absent in the airport area planning process, due to the centralised approach to airports and a strict separation between airside and landside development.

A second element of horizontal institutions of governance explored in this chapter is competition between policy sectors, in most cases between ministries. The ‘tribe wars’ of 1980s and 1990s between Dutch ministries involved in transport, urban planning, and economic affairs were notorious. The conflicts were (temporarily) decreased by inter-departmental co-operation and job rotation between ministries. The lock-in of governmental distrust in airport planning among citizens and developers in the airport area also forced the ministries to reconsider their role. The Dutch Ministry of Transport and Waterworks is in the process of redefining its role to being more distant and taking on a supervisory role, rather than being directly involved in development and the promotion of the aviation sector. The roles of the ministries are different from the past, challenging the traditional growth coalition of airport, airlines and national ministries.

Inter-departmental competition in Hessen and Japan was not reduced by improved co-operation, but by the merger of ministries. The mergers led to better co-operation between the departments of economics, urban planning and infrastructure in Hessen. By merging the ministries of transport and land, Japan could kill two birds with one stone: infrastructure and public work planners are less focused on technical solutions and are more receptive to social and economic considerations on the one hand. On the other hand, the political dominance of the former Ministry of Transport was reduced in favour of the Ministry of Finance’s budget deficit reduction. Both changes are particularly relevant for airport area planning in the near future.

The case of Schiphol is the most progressive in terms of public-private institutional arrangements that go beyond traditional governments. While airports in Tokyo and Frankfurt are limited to being airport authorities, Schiphol is involved in several regional coordination platforms. Schiphol is a member of a platform that initiates and coordinates spatial-economic developments in the vicinity of the airport and Schiphol is also shareholder of Schiphol Area Development Company. The model can be seen as a public-private institutional arrangement *avant-le-lettre*. However, with the recent attractiveness of the airport areas, the arrangement shows its shortcomings: the airport coalition tends to exclude other developers and the simultaneous role of these public actors as policy makers, policy maintainers and project developers is problematic.

The chapter conducted a legal institutional analysis at the international, national and regional/local levels. At the international level, liberalisation and integration are crucial policies for the development of the airport as a cityport. In East-Asia, the aviation market is relatively closed. Between western countries however, and particularly within the European Union, there is scope

for further liberalisation of aviation markets. Liberalisation does not only challenge current contracts between countries, but the degree of liberalisation will also have a significant impact on the airports concerned. The airports operate within the EU's increasingly competitive market, but the EU currently lacks a level-playing field for real competition due to cultural differences in policy styles. A level-playing field is necessary in order to break down regional monopolies, a policy aim that was successfully achieved in Japan by increasing airport competition, leading to higher levels of airport efficiency and better deals for travellers.

Legal institutional arrangements at the national level are also relevant for airside development, with a focus on noise- and safety contours around airports. Schiphol's search for a narrow balance between aviation noise areas and protection of urban areas was embodied in a paradoxical policy document combining economic and environmental targets. This planning ambition vanished as a result of literally changing winds, the turbulent aviation market and different perceptions of aviation noise among citizens. A common trick at the local level to dam airport expansion is to create obstacles to legal battles, which are often met with mixed results in all case studies.<sup>20</sup>

Schiphol and Frankfurt both have strict land-use zoning regulations at the local level. Nevertheless, the loose interpretation of airport-related activities at Schiphol has led to rapid monocentric urbanisation and congestion of the airport city. Both the airport and local governments play an active role in this process by further exploiting their privileged institutional position as members of the airport growth coalition. In Frankfurt, political conflict and the forest as a natural barrier avoids urbanisation near the airport or at least led to a limitation of projects in the vicinity of the airport, such as the AIRRAIL Center. Other accessible and specialised locations have been developed at a distance, leading to a polycentric airport city. Japanese airport laws strictly separate airside and landside development, contributing to more problematic institutional arrangements that have been in a process of change recently. For this reason, few urban developments are found at Haneda.

## Notes

- 1 Ironically, as chapter 8.6 pointed out, it were the national bureaucrats themselves that were often involved in corruption scandals and failed investments in public works.
- 2 For example, for expanding airport services with massage centres, the airport is negotiating directly with the Ministry of Transport, and not on the local level with Kawasaki or Tokyo.
- 3 In planning, the 'law of general development of Japan' will be merged with the 'law of regional development.' In 2005 these laws are the new 'law of basic planning of Japan.' According to the new law, municipalities have to take initiative in the proposal of new plans, before consultation with MLIT takes place (Kanagawa Shimbun 16.11.2004).
- 4 As Mr. Bussink (Ministry of Transport) argues, since secretary-general Ms. Bakker of VROM took office, political support to stop the 'tribe wars' has increased and inter-departmental co-operation has improved gradually. The principle of not stealing a march on other ministries became common (*'interdepartementaal vliegen afvangen'*). The problem re-emerged a few years ago when the junior Minister of Economic Affairs Ms. Van Gennip, although warned by her civil servants, planned to co-ordinate regional economic policies for Schiphol, but later withdrew this ambition.

- 5 Bureaucrats in the MOF hindered modern financial products, making the financial sector uncompetitive until today (Porter *et.al.* 2000). Competition and high management ambitions between MPTP and MITI led to the telecom war in 1994. Before this 'sector war' and before privatisation, the telecommunication business was not competitive; afterwards, Japan became a world leader in telecommunication in only a few years time.
- 6 Interview Messener and Sachleber 2003. Within the city, sometimes eight decisions are necessary to change a detail: executing bureaucrat, land use planner, manager planning, head of the planning department and mayor, and over the same wheels down in the other policy sector.
- 7 *Regionaler Flächennutzungsplan: Flächennutzungsplankompetenz mit kooperatives Verfahren.*
- 8 Communities indicting the regional structure plan are Bischofsheim, Erlensee, Florstadt, Ginheim-Gustavsburg, Hammersbach, Hanau, Karben, Kelsterbach, Langen, Mörfelden-Walldorf, Münzenberg, Neuberg, Neu-Isenburg, Niddatal, Nidderau, Nierdorfelden, Ober-Mörlen, Raunheim, Reichesheim, Rockenberg, Rodenbach, Schöneck, Wölfersheim and the counties Gross-Gerau, Main-Kinzig and Wetterau (FAZ 13.11.2003).
- 9 There is willingness in the Netherlands to merge provinces, but actors disagree on the provinces that should be included. At the time of the Hollandwet conference (Deltametropool 2005), plans were made to merge Noord-Holland and Zuid-Holland, and to explore the possibility of including Utrecht. The minister of home affairs proposed to include Flevoland as well. These plans were acceptable for the Province of Zuid-Holland, but were opposed by Noord-Holland. The latter wants to distinguish a Northwing and a Southwing in the Randstad, and wants to exclude Zuid-Holland (Provincie Noord-Holland 2006). This disagreement undermined the unity of mayors and deputies of all four provinces that was at the root of recent government re-arrangements.
- 10 It is beyond the scope of this book to discuss the concept of governance in more detail. For a detailed discussion, see among others: Kooiman 1993, Jessop 1998, Rhodes 1999. This chapter focuses on the implications of governance for planning processes.
- 11 Ms. Bijvoet (SADC) argues that the power of BFS in the region is often overestimated. For instance, Schiphol Logistic Parc was designated as ready for development by BFS, but was later delayed and will possibly be cancelled by the Haarlemmermeer city council – a municipality that may have other preferred locations within its territory.
- 12 In Japan, it is not uncommon to be shareholder of a rival company, but Schiphol Real Estate's BFS membership means it has a privileged position in the airport territory and advantages in other locations.
- 13 The nine freedoms of the air are: (1) the right to over-fly one country en-route to another; (2) the right to make a technical stop in another country; (3) the right to carry traffic from the home country of the airline to another country; (4) the right to carry traffic to the home country to another country; (5) the right to carry traffic between two foreign countries by an airline of a third country, (6) which carriage is linked with third and fourth freedom rights of the airline; (7) the right to carry traffic between two foreign countries via the home country of the airline; (8) the right to carry traffic between two foreign countries by an airline of a third country, which carriage is not linked with third or fourth freedom rights of the airline; (9) the right to carry traffic between tow points in a foreign country on a route with origin/destination in the home country of the airline (cabotage); the right to carry traffic between two points in a foreign country, which is unrelated to the home country of the airline (Mendes de Leon 1992).
- 14 The Kosten Committee (1967) introduced the Kosten-eenheden (Ke) for noise contours. The Committee calculates maximum noise levels for airplanes flying over an open field. Since Ke is only used in the Netherlands and based on calculations rather than measurements, it will be replaced by the EU standard of  $L_{den}$ , which will include noise levels inside houses and noise levels at night time. For this reason, it is impossible to convert Ke to  $L_{den}$ . The general indicator for aviation noise is expressed by  $L_{den}$  dB (A). In the

- case of Schiphol, the noise contour of 20 Ke overlaps roughly with  $L_{den} 45$  dB (A). The Eversdijk Committee (2006) proposes to draw the noise contour of the inner area at the former strict 35 Ke and the outer contour between  $L_{den} 45$  dB (A) and  $L_{den} 50$  dB (A).
- 15 The Committee Eversdijk (2006) was installed after the Committee Berkhout refused its task after feeling too much political pressure to safeguard future airport expansion. The political pressure and academic smoke screen for established policy justification were not refuted in public (Heilbron 2005).
- 16 Interview Mr. Tan (CROS). The discussion on compensation measures in the Schiphol area was started recently based on the report of the Ministry of Transport's advisory council's recommendation to start a debate on noise compensation payments (Raad V&W 2005).
- 17 See note 14.  $WECPLN = dB(A) + 10 \cdot \log N - 27$ . The noisiest category is 95, near the runway, where there is compensation of building relocation and land purchase by the government, as well as government maintenance of green spaces.  $WECPLN$  of 90 is compensation of building relocation and land purchase by the government.  $WECPLN 75$  is the category of noise protection subsidies for construction, and residential use has to be protected.  $WECPLN$  under 70 is suitable for living (Chiba Prefectural Government 2005).
- 18 The planning directive used is the *aanwijzingsbesluit*. The *gedoogbesluit* for the airport tower is a temporary allowance for construction with a period of time allowed for arranging the necessary legal documents.
- 19 Airport Development Law available at: <http://nippon.zaidan.info/seikabutsu/1996/00607/mokuji.htm> [access 12 May 2006]
- 20 Haarlemmermeer in the Randstad planned new large-scale housing areas near the noise contours; Dutch environmentalists planted the Bulderbos forest; Kelsterbach in Rhein-Main allowed expansion of the Calthex factory sites to avoid new runway approaching routes; and farmers in Narita refused to sell their land for runway enlargement.





# 10 Conclusions and institutional learning

## 10.1 Introduction

At the turn of the century, traditional downtowns are no longer the only centres of economic activity. Centres develop where infrastructure, people and economic activities meet: they are introduced as cityports. Airports are rapidly developing in terms of passengers and therefore likely to become more important nodes and part of the entire city-region fabric. The focus here is on the airport and the vicinity of the airport to limit the scope of the research, but other types of centres can also be distinguished. Spatial and economic developments are rapid in general, and established actors' institutions are expected to catch up and adjust to new realities. Actors are the players that set the playing field of the urban development arena and form coalitions in order to develop the wider airport area as a cityport. Jointly the actors set the rules of this 'game', with suitable and less suitable institutions as a result. Actors in the case studies can learn from themselves and from each other in the fitness of these institutional arrangements.

This dissertation discussed the position of the airport as a cityport in the city-region. Out of the three research questions, two have been answered thus far. The first question refers to the spatial-economic position and the second one refers to the institutional position of the airport as a cityport in the city-region. This chapter summarises the conclusions of the steps taken and goes beyond the conclusions drawn by each chapter. Finally, the third research question will be addressed: which institutional changes are required to adjust to the changed spatial-economic realities? These lessons can only be drawn after thorough analysis and reflection, and institutional learning fits in the broader theoretical reflection on meaning and sense making of international comparisons of institutional arrangements. Therefore, first we redraw the conclusions of the case study analysis. This provides the full answer to the main research question:

*What are the spatial-economic and institutional positions of airports as cityports in the city-region, and if necessary, which institutional changes are required to adjust to the changed spatial-economic realities?*

1. *What is the spatial-economic position of airports as cityports in the city-region?*
2. *What is the institutional position of airports as cityports in the city-region?*
3. *If necessary, which institutional changes are required to adjust to the changed spatial-economic realities?*

These research questions are defined and split up in sub-questions in order to answer them in a conscientious and eclectic manner. Section 10.2 answers the first research question that covers the spatial-economic analysis of chapters 2, 3 and 4. This focuses first on the development and integration of the city-region entity that competes with other city-regions in the globalizing world. Second, the spatial development, in particular cityport development, is framed for the case studies. Finally, a narrower focus is on the airport as a particular kind of cityport.

Section 10.3 answers the second research question, covering the institutional analysis of chapters 5-9. First, actors are introduced in the framework of the actor coalitions they are in. In particular this focuses on the anti-growth and growth coalitions concerned both on the level of the airport and the airport region. Then, conclusions are drawn on the socio-cultural, financial, economic, governance and legal institutional frameworks that determine the actors' and actor coalitions' playing field.

Section 10.4 discusses which institutional changes are necessary and where institutional learning can take place for the airport as a cityport in the city-region, and thus answer the third research question. Institutional learning for actors both within and between the case studies is discussed. Also, the possibilities and limitations of institutional learning and lesson drawing are put forward. Paragraph 10.5 reflects on these possibilities and limitations of the case studies themselves, and reflects on the theoretical framework, which was applied for the analysis. Required and recommended further research on the discussed issues sets the future research agenda here.

## 10.2 The spatial-economic position of the airport as cityport in the city-region

1. *What is the spatial-economic position of the airport as a cityport in the city-region?*

1a. *What is the economic performance and regional embeddedness of the city-regions, and to what extent does this match the development of globalizing city-region?*

Dynamic metropolitan economies such as London and Tokyo are regularly able to reinvent their economic sectors and make them more competitive and diverse. Other regions such as Walloon and the Ruhr area get stuck in a path-dependent mindset for a longer time; once their economic sectors were highly competitive, but they are so no longer, and change is hard. In order to come to a dynamic and diverse metropolitan economy, the city-region needs continuous economic integration enforced by increase of scale, caused by decreasing transportation- and information costs. In the competitive city-region an attractive urban climate with creative and motivated employees and business managers are therefore essential.

This integration towards a metropolitan economy is a challenge for polycentric city-regions in particular. Competition between city-regions is however no longer limited to the global cities such as Tokyo alone. Increasingly, medium-sized polycentric city-regions as Frankfurt Rhein-Main and Randstad are competing on a global level. This competition is not a zero-sum game but a matter of comparative advantages. Different city-regions specialise and develop in a particular direction. Therein, not only the institutional arrangements of the *liberal market economies* of the U.S., Australia or the U.K are successful or dominant. *Coordinated market economies* such as those of Japan, Germany and the Netherlands have a long track record of successfully adjusting to new economic realities in a later stage. This coordinated setting favours cooperation between specific economic sectors and governments that require a specific regional embeddedness. As the city-region is becoming the appropriate scale for social and economic activities, regional actors are becoming relevant for improving this regional embeddedness and enhancing the competitiveness of the city-region.

In order to understand the performance and roots of the institutional arrangements in the city-region's economy, a benchmark for the case studies Randstad, Frankfurt Rhein-Main and Tokyo Metropolitan Area is conducted. The benchmark consists of two parts: (1) measuring *economic performance*, referring to past and present, and (2) estimating the *investment climate* and regional embeddedness, indicating future developments in the city-region.

In terms of economic performance all case study city-regions have higher growth rates and production levels than their size and position in the national economies would suggest. This can be explained by the importance of the service sector. The Randstad is successful in transport, attracting European headquarters, financial and business services. Frankfurt Rhein-Main's excellence is found in transport, international banking and conventions. Tokyo became the international hub for Japan, and is a home to many global corporate headquarters, banks, and innovative business services. Furthermore, Tokyo and Frankfurt still have a substantial share of high-tech manufacturing in economy. It is obvious that Tokyo plays in a higher league than Frankfurt Rhein-Main and Randstad, with more economic command functions and a larger domestic market. The structure of the economic sector and performance in Tokyo and subsequently Frankfurt Rhein-Main are more differentiated than in the Randstad, which can be explained respectively by the large consumer market and the regional (tax) competition.

In the near future, the case study city-regions will continue to grow economically and demographically in contrast to the decreasing development speed of their hinterland. The main reason here is that the city-regions have an attractive labour market and urban qualities. This is not limited to the traditional downtown centres of the city-region, but increasingly includes polycentric regions with a variety of new working and living places.

Tokyo's competitive qualities are not only the labour market, but also high-quality consumers demand and rail infrastructure. Lack of access to the market for newcomers and deficiencies in airport infrastructure are seen as less attractive elements of the Tokyo business environment. In contrast, Rhein-Main's and Randstad's competitive edges are airport infrastructure and market openness, including financial markets. In the European cases studies the quality and attitude of labour and housing is more problematic than in Tokyo. In Frankfurt Rhein-Main the tax climate is considered as problem number one, in particular competition for corporate tax between municipalities.

The ability and ambition to create actor coalitions that 'boost' the city-region's competitiveness in relation to other city-regions vary between the cases. In Tokyo, not international competition, but the threat to relocate the government outside Tokyo, including the important political-bureaucratic complex, was a major reason for the Tokyo Metropolitan Government to develop strategic urban projects in the Tokyo bay area and to continue internationalisation. More recently, large project developers are planning to assure Tokyo's economic position with new high-quality cityport redevelopment projects in Tokyo. In Frankfurt Rhein-Main, economic agents and media are leading in establishing a regional identity, economic competitiveness, and a public transport network all of which contribute to a further integration of the city-region – wrangling governments that could not agree on common strategies for city-region building. In the Randstad however, even the name 'Randstad' itself is not widely accepted for the city-region. First of all, there is a dominant awareness that daily life of most citizens takes place on a lower spatial scale, a north wing and a south wing in the Randstad. Furthermore, a metropolitan

ambition raises fear of metropolitan problems of poverty and congestion, super-urban blocks, and a potentially too powerful city-region that covers almost half of the country.

*1b. Which cityports can be distinguished inside the city-region and to what extent do these cityports contribute to the economic development of the city-region?*

Before the spatial-economic position of airports in the city-region is fully understood, understanding the internal geography of the city-region is quintessential. In this internal geography of the city-region different old and new centres are found. Bertolini's (2005) node-and-place model makes us aware of the important infrastructural and urban dimensions. The dimension of infrastructure consists of the connections and directions of different modes of transport, key-assets of the region that co-determine investments in urban projects. The urban dimension measures the number of inhabitants and jobs that determine the critical mass in the city-region. In addition, here we emphasize the importance of the (kind of) economic activities as a critical factor in the process of new urban centre formations in the polycentric city-region. Since space productivity per square kilometre on the local level could not be measured in the case studies, rent levels are taken as the indicator for the economic dimension of the cityport. These *economic, urban and infrastructure dimensions* taken together represent the cityport model for analysing the internal geography of the city-region.

The urban centres in the polycentric city-regions vary in nature and size and can be distinguished in *types of cityports*. Hall's (2001) categorization of traditional downtown centres, new business centres, internal edge cities, external edge cities, specialised subcentres and remote edge cities is used to understand spatial-economic developments within the city-regions that is not limited to the traditional centres anymore, but is becoming increasingly polycentric in shape. Analysis of cityports in Randstad, Frankfurt Rhein-Main and Tokyo Metropolitan Area has shown that a greater differentiation of cityport types is necessary.

On the one hand, transport, auction trade, and R&D-intensive manufacturing can still be highly productive if these urban concentrations are added to the cityport model as greenports, cargo centres and R&D centres. In the Rhein-Main area, R&D intensive manufacturing sites are even the areas with the highest productivity levels. In the Randstad, air transport at Schiphol airport and sea transport at the harbour of Rotterdam are even considered the 'mainports' of the national economy. On the other hand, in highly urbanised city-regions such as Tokyo, subcentres specialise more and more and these specialised subcentres can be further differentiated. We distinguish leisure centres (Disney resort, Odaiba), commercial centres (Shibuya, Shinjuku), culture centres (Ueno, Asakusa) and science cities (Machida, Tsukuba) as well.

Last but not least, airport areas are becoming new centres in the internal geography (of city-regions) and are added as a particular kind of cityports. Schiphol attracts all kind of economic activities to the airport and the city of Amsterdam and develops itself as a *monocentric airport city*. Strict planning for a location in the city's forest, a well-developed regional infrastructure network, and urban specialisation in the airport area, make Frankfurt Airport a *polycentric airport city*. Regarding Tokyo's airport a spatial-economic development towards a cityport was not found. Haneda is an *isolated airport island* in the Bay of Tokyo surrounded by water and older manufacturing sites in Kawasaki and Ota, with few urban developments. Narita did attract

economic development, but this did not lead to cityport development: it can best be seen as a *sprawled aerotropolis* in Tokyo's countryside.

One of the findings is that the case studies vary strongly in the domains of infrastructure accessibility, urban densities and rent levels. In general, better accessible locations require higher rents and (therefore) higher productivity levels. In Tokyo and Frankfurt Rhein-Main the traditional downtown centres are still the best accessible locations with the highest rents. However, airport areas are catching up with top rent levels and accessibility, with the highest office rents in the Randstad paid at Schiphol. Despite the limited economic activities and remoteness of Tokyo's airports, rents are still relatively high compared with the best downtown office locations.

Accessibility of locations in the Randstad varies more than in Tokyo and Frankfurt Rhein-Main. The Tokyo Station area and Frankfurt's downtown have the best accessibility, and many locations are well connected due to the excellent rail infrastructure networks. The cityports in the Randstad however have less infrastructural access, which can partly be explained by the planned nature of their centres rather than the organic development of accessible locations. It is however surprising that this does not lead to greater, but to smaller regional differences in rent levels and labour productivity compared to the other case studies. This implies that cityports in the Randstad have less of an urban orientation with higher car dependence, and less willingness to pay for a highbrow urban working environment.

*1c. What is the spatial-economic position of airports as a type of cityport in the city-region?*

After understanding the development of cityports in the globalizing city-regions, the spatial-economic position of the airport as a particular kind of cityport can be analysed. The airport as a cityport can be understood by analysing the *airside*, *airport*, *landside*, and *airport region*.

In terms of airside development, the case studies vary in type: Schiphol, Frankfurt, and Haneda are major hub airports where many passengers transfer flights. Haneda is a hub for domestic flights in Japan, and Schiphol and Frankfurt are intercontinental hubs. Narita is an origin-destination airport for international travellers heading for Tokyo, with few transfers. In general, Japanese airports are too expensive, inward-oriented and lack distinct airport strategies to compete with hubs such as the new international airport cathedrals built in East Asia, in particular in Shanghai, Seoul and Hong Kong.

On the landside of the airport, international airports in Japan are future-oriented since creating airport islands on remote locations solves noise- and safety problems. It does however cause financial burdens and airport islands have more difficulties to generate economic spin-off than airports that are located in the heart of metropolitan areas, where proximity is an essential competitive advantage, as (is the case) in Frankfurt and Schiphol.

Along with airline competition, airports are increasingly challenged to compete in commercialisation, globalisation and privatisation. As a result, ownership structures are changing from public to private and airports are becoming more dependent on non-aviation revenues, in particular real estate, parking and business services.

The spin-off of the airport as a generator of economic activities and jobs in the wider airport region varies among the cases. In general, labour productivity in liberal market economies' airports is higher than in the coordinated market economies of the case studies, as a result of the market specialisation and subcontracting. Higher productivity can however also indicate less jobs and less regional embeddedness, but not necessarily so. The coordinated market economy cases show mixed results.

After a period of protecting the site from urbanisation, Schiphol and surrounding municipalities started to exploit the airport area as a pioneer in the 1980s, despite public ownership. The future thread of Schiphol is the classical problem of airport exploitation of the *monocentric airport city* that can be ruined by her own success. First, the airport needs a second terminal and therefore can become less efficient and more expensive. Second, traffic jams are the result of further urbanisation of the airport area.

Both Frankfurt and Schiphol generate high numbers of jobs near the airport and in the wider region. Political battles lead to trade-offs between the airport and its surrounding in Frankfurt Rhein-Main. The airport continues to grow, but forests surrounding the airport limit further monocentric urbanisation, supported by regional rail- and road infrastructure networks and competition between towns and cities. The airport area of Frankfurt can therefore best be described as a *polycentric airport city*.

Violent opposition led to the inability to use expropriation, and the consequent trauma created a precedent in Japan: since the withdrawal of the expropriation commission, the instrument is not being used and the problem was avoided by building airports in sea, where no expropriation was needed. Although riots and political clashes were at stake at Narita, no spatial-economic trade-off as in Frankfurt could be generated. The Narita area could economically develop, but the lack of planning led to a *sprawled aerotropolis* of warehouses and hotels in the vicinity of the airport. Furthermore, the government's ambition of developing manufacturing sites rather than distribution sites was a main cause; so that the few planned sites remained vacant.

Haneda generates few jobs and has few economic exchanges with bordering cities of the airport island. Although its nature as a domestic airport is an important explanatory factor in this, one would expect more activities near Asia's largest airport.

The more recently planned airport islands at Kansai, Nagoya and Kobe offered space for airport economic spin-off. The spatial and economical developments are however limited also in these cases. The quintessential question rises then, what are the main reasons that Schiphol and Frankfurt airports could develop as cityports, while Japanese airports could not, despite their infrastructure-oriented development tradition and high real estate prices. Therefore, we need to understand the institutional arrangements of the actors involved.

### 10.3 The institutional position of the airport as cityport in the city-region

2. *What is the institutional position of airports as cityports in the city-region?*

2a. *Who are the strategic actors for the formation of spatial development coalitions in airport areas as cityports in the city-region?*

Institutions are seen as the rules of the game in the development process of the airport as a cityport. Although institutions are persistent features and tend to be path-dependent, they are considered as dynamic, since actors and actor coalitions are able to change the institutions by collective action. Therefore, actors and actor-coalitions are seen as the key players that create and reconstruct institutional arrangements. Actors in airport area developments are differentiated in *national, regional, and local governments, airport operators and airport users, commercial actors* (project developers and investors, asset managers) and *advisory organisations*.

Governmental structures in airport planning in the Netherlands can best be categorized as unitary decentralised, in Japan as centralised, and in Germany as decentralised with a principle of subsidiarity. National ministries in charge of transport, land use and finance in the Netherlands and Japan play an active role in airport area development. In particular the transport ministries in the more centralised case studies play different roles at the same time, in particular regarding development and control. This is in contrast with Germany's federal level, whose role is carefully limited to laying out juridical and technical guidelines, as urban and regional planning is not a federal task.

Both Japanese prefectures and Dutch provinces are not responsible for airport airside infrastructure planning itself, which is again different from German state level planning. The main airport area planning instruments on this regional level in the Netherlands and Japan are limited to regional land use plans and tools for coordination between local and national plans. Airport expansion in Germany is decided on the state level with decision-making powers, spatial development plans and planning procedures as main instruments.

The role and influence of local governments' land-use and structure plans vary between the cases. Frankfurt's airport is located within the municipality and is partly owned by the city of Frankfurt, so that local planning is strong. Schiphol is located in Haarlemmermeer, and Amsterdam's informal influence as an airport shareholder (and consequently within coordination platforms) is strong, but limited in terms of formal land use planning. Haneda is located in Tokyo but land use planning is controlled on a higher level, as the airport is managed and owned by the national government. Narita is located outside of Tokyo and local planning is formally in the hands of the city of Narita and Chiba prefecture.

Schiphol Group and Fraport AG are business groups that operate and develop more independently than airport authorities at Haneda, Kansai International and, until recent privatisation, Narita. Joined by commercial actors the airport authorities are becoming involved in planning outside the airport territory. In Schiphol and Kansai, public-private area development companies were set up. Recently, joint development companies of the city of Frankfurt and Fraport are being established. For various reasons airport areas near Narita and Nagoya lack these public-private partnerships. The home carriers KLM, Lufthansa, and ANA and JAL are the main airport users, but their role is limited because of airport governmental regulations. In Frankfurt however, Lufthansa's role is changing as airport shareholder with a distinguished terminal.

Airport coalitions are distinguished on the level of the airport as such, and on the level of area development surrounding the airport. At the level of the airport, airport growth coalitions face severe opposition from environmental coalitions. Environmental coalitions consist of

environmental groups and local towns that are affected by noise pollution. Airport growth coalitions however vary in composition: they include airports and home carriers, as well as airport owners. In the case of Schiphol, the Ministry of Transport and Water Management is a sustainable partner of the growth coalition, but is recently reconsidering its role here, due to the contradictory roles of both aviation supervisor and mainport project developer. The Japanese Ministry of Infrastructure and Transport's civil servants, Liberal Democratic Party parliamentarians and construction companies favour further development of (airport) infrastructure. Since the Japanese Ministry of Infrastructure and Transport is only allowed to focus on the airside infrastructure and not on the landside, a mismatch of landside and airside development is institutionally embedded. The roles of ministries in the airport growth coalition of Frankfurt are less apparent, but overall they support the expansion and development of the airport.

*2b. Which socio-cultural, financial, economic, governance, and legal institutions determine the playing field for the actors involved?*

*2c. If so, where do inefficient institutions, path-dependent behaviour, and institutional lock-ins create obstacles in the spatial-economic development of airports as cityports?*

The strategic actors, the planning tools and changing positions set the rules of the game and the size of the playing field for developing the airport as a cityport in the city-region. These rules of the game are differentiated in *socio-cultural, financial, economic, governance, and legal* institutions. As these institutions are considered dynamic, it is necessary not only to frame the institutions, but also to look at their development and obstacles in development. This includes lock-ins, path-dependencies, free-riders and rent-seeking behaviour, uncertainties and political conflict. Therefore, research questions 2b and 2c will be answered in combination.

#### *Socio-cultural institutions*

Socio-cultural institutions are local cultural characteristics and specific embeddedness, based on historical roots of institutions and national policy models and styles or state regimes. In particular, rule formulation, nature of the rules and implementation and enforcement as elements of the regulatory regime are analysed.

In terms of rule formulations, all cases are examples of corporatism. Societies and unions play a profound role in regulating and codetermining policymaking and maintenance in the states. Dutch corporatism has deep and broad roots in society, with associability, subsidiarity, collegiate governance and consensualism as its main features. Elements of the regulatory model where central state tasks were privatised can even be found today in the Schiphol case study, e.g. in the role and involvement of the airport in regional planning. The German model is somewhat less corporatist than the Dutch model. Sectorism is more dominant, and because of the country's size and federalist system, regional actors play a more important role. Japan combines state regulation with corporatism. The comprehensive and centralised state intervention works since it is carefully limited and pluralistic, with politically passive unions and societies. In the case of airports however, we conclude that state regulation is dominant. The role of large business conglomerates of banks, business units, contractors and subcontractors in the construction industry should however neither be underestimated.



Japan and the Netherlands combine corporatism with elements of centralism that leads to integration of policies. Centralism dates back to the era of public works uniting and connecting the Dutch provinces in the 19th century. Tokugawa ruling in Japan (16th-19th century), and public works to stimulate the national economy in the 20th century, served similar purposes and also strengthened centralism and the role of transportation bureaucrats. With a variety of shires, electorates and manors in the 16th-19th century, Germany did not integrate this far, and the decentralised socio-cultural institutions were reinforced again after World War II with the introduction of the federal state system. The variety of competing electors from Darmstadt and Kassel and from the trading city of Frankfurt is also an explanatory factor for understanding the lack of regional cooperation, which is enforced by a later administrative split up of Frankfurt Rhein-Main over the states Hessen, Rheinland-Pfalz and Bayern.

Although all cases are examples of consensualism, the required degree of consensus is higher for the Dutch in their common attempt to keep their head above the water and the Japanese need to cooperate in order to produce and share rice. Consensualism in policy making and pragmatism in policy maintenance in the Netherlands and Japan are backgrounds for understanding the tendency to create, accept and rarely prosecute construction industry cartels, collusion and bid rigging. Furthermore, in the case of Schiphol a patchwork quilt of public and public-private coordination platforms, a feature not common the Japanese cases, expresses consensualism. Not pragmatism, but moderate legalism in policy maintenance is more common in Germany. Market pressure in Frankfurt's office market however led to bribery of asset managers and real estate developers.

#### *Financial institutions*

The financial institutions are the incentives for market investment created by governments. These are on the one hand redistribution by taxes and subsidies and, and on the other hand strategic investments in airport areas as public works.

The fiscal structure of states, ranging from decentralised to centralised, co-determines spatial-economic developments in the city-region. Decentral financial institutional arrangements force communities in Frankfurt Rhein-Main to compete on corporate tax in order to attract businesses. Despite a sense of urgency, actors cannot agree upon a fair model of regional financial cooperation. This is caused by hidden costs for new solutions (losing a competitive advantage), uncertainty (the effect of a new model is not yet proven) and political conflict (past experiences of failed regional cooperation models).

In the centralised fiscal structure of Japan, tax competition is absent and local communities hesitate to increase the limited local taxes in fear of losing competitiveness. A dependency mindset however makes cities in Japan compete for public works to attract investors instead, mainly paid by the national government.

In the Netherlands, competition between municipalities is less apparent. The main reason in terms of financial institutions is the balance between centralised and decentralised fiscal structures: the Municipal Fund guarantees both income and free decision over local government spending, based on population. As local tax, airport revenues are crucial for the cities of Frankfurt and Narita. In the case of Schiphol, tax revenues are far less important for Haarlemmermeer as location and for Amsterdam as a shareholder; it is nevertheless essential for the business climate of the city-region.

### *Economic institutions*

Economic institutions are the conditions for the market actors to be willing to invest in spatial development in cooperation with public actors such as governments. Although tax competition is severe in Frankfurt Rhein-Main and considered to be the most problematic element in the investment climate, it is also a major reason for local economic specialisation in the city-region. Large and small municipalities are aware of the kind of economic activities their community can attract and set the corporate tax level. This further enhances the identity of the communities in the region. Competition between Japanese cities is not absent, but is based on public works, in particular roads, airports, bridges, and convention centres in order to attract businesses. This model contributed in particular to economic development in the 1950s and 1960s, but later failed with several bankrupt or failed public works.

Instead of competition for taxes or public works, Dutch municipalities compete on public land supply for offering industrial and office sites to entrepreneurs. Land supply is an institutionalised task without a legal obligation, and is made possible due to the dominant land ownership of municipalities. This regularly leads to oversupply of cheap land and a lack of recycling of industrial sites, but market pressure and business park management in the Schiphol area show signs of more coordination. Established real estate developers and asset managers appreciate the cooperation in harmony with local authorities, since they run less financial risk and can become free riders. The Schiphol Airport Development Company (SADC) illustrates this model: local governments bring in land in a land pool, and prepare for development. Then, real estate investors develop the land and hire constructors to build buildings and finally sell it to asset managers. In the end, SADC checks the airport-relatedness of the economic activities.

Land supply and property development in Frankfurt Rhein-Main and Tokyo Metropolitan Area contrasts with the harmonious model of the Randstad. The large size of the domestic market has the advantage of hosting a variety of developers able and willing to develop large-scale projects such as the AIRRAIL centre in Frankfurt and airport islands in Japan.

A larger market does however not necessarily mean a more open market. In Japan, privileged developers and landowners are part of an iron triangle of politicians, civil servants and constructors that favour public works development for their own interest. In the Netherlands, collusion between transportation ministry bureaucrats and constructors was common, but here politicians were not structurally involved. Even after collusion became illegal in the 1990s, in both Japan and the Netherlands illegal practises remained institutionalised. This is partly caused by the fact that governments do not make clear bidding regulations and are unable to enforce these regulations, which shows the pragmatic attitude in policy maintenance and the problematic sides of corporatism in institutions for breaking up cartels and old-boys networks. Recent tenders and bid-rigging incidents show how path dependent and locked-in the bidding process still is, but do show small signs and efforts of institutional change. Institutional change is slow in Japan in particular. Not current projects but only new projects such as Nagoya's new airport can, with a different approach, in case of success lead to new common practises. The tendency to 'divide' and 'balance' the construction market is not only found in case of collusion and bid-rigging, but also in a more liberal construction market economy such as that of Frankfurt Rhein-Main. Here, indications and indictments for bribery between project developers and asset managers were found in the dynamic office market.

As a result of further commercialisation, airport ownership is under discussion. Privatisation might bring improved efficiency, increased competition, and reduce governmental tasks and the need for public sector investment. It can however also lead to airport overcharges, poor standards of service, and lack of consideration for externalities. A harder problem to tackle is the monopolistic nature of most airports. In Europe, cultural differences make it a hard task to establish a level playing field of competing airports, while breaking the monopolies, with all the informal and varied institutional arrangements involved.

Privatisation in Japan has not only made airports more efficient and generated higher profits; it also dismantled the established monopolies since airports in Japan have to compete with each other. It remains to be seen whether airport privatisation in Narita can also improve the disturbed regional relations. The privatisation approach of Nagoya's new airport also show signs of increased efficiency and broken monopolies, which might become an example for the future development of the publicly owned Haneda airport. In the case of Frankfurt, privatisation of a minority of the airport shares generated extra income for airport infrastructure investment; the effects on the institutional position of the airport in the city-region have however thus far not changed considerably. The key argument for privatising parts of Schiphol is a better role differentiation between airport authority, airport owners and supervising ministries. It is likely that if the airport authority is held accountable for her acting, it contributes to self-responsibility and might improve the relationship with other actors in the airport area. The question remains however, if selling a minority of shares is enough to reach this goal, which becomes increasingly urgent as an institution of governance.

#### *Institutions of governance*

Governments increasingly set the rules of the planning game in co-production with market actors and advisory organisations: a situation often referred to as governance. Therefore, governance institutional arrangements are not only analysed as vertical coordination problems (between national, regional and local governments) and horizontal coordination problems (between sectors), but also as public-private created networks in the institutional arena.

*Vertical institutions of governance* vary from decentralised to centralised. Despite decentralisation policies in the Netherlands and Japan, these cases are examples of centralisation: the national government plays a decisive role in the airport and airport area development, either with respect to finance, policy-making or jurisdiction. Germany's system of a federal state and vertical governance institutions based on the principle of subsidiarity guarantees that there is hardly any intervention from the national government in airport planning. This can be described as 'decentral where possible and necessary,' except for explicitly defined policy fields in the legal constitution.

The current paradigm in the Netherlands is 'decentral where possible, central where necessary', which is more ambiguous and leaves space for political debate and interpretation. Schiphol is considered as a key element in the national economy (mainport) and therefore direct and active involvement of the national government is involved.

In Japan the vertical institutions of governance in international airport and airport area planning lead to direct jurisdiction of the Ministry of Land, Infrastructure and Transport (MLIT). MLIT and the Ministry of Finance in the end pull the (financial) strings. In the case of Haneda, MLIT directly manages the airport and therefore no regional cooperation is established

(since the only relevant actor is MLIT) and no development of the airport as a cityport can take place (airport area development focuses solely on airside infrastructure). This hierarchy combined with a path-dependent mindset of local and regional governments leads to the conclusion that institutional arrangements of governance in this case can be seen as ‘central whatever is possible.’

The tuning of policies across government sectors, *horizontal institutions of governance*, regularly leads to coordination problems. These institutional arrangements are analysed on the national and regional level. In the state Hessen, merging sectors that belong together reduces interdepartmental segmentation: economy, transport, and land use planning. This might however create new borderline cases in other policy fields.

At the national level, cross-sector coordination leads to severe problems in the Netherlands and Japan. In Den Haag four ministries are involved in spatial and economic development policies with their own priorities. In the case of Schiphol this is reflected by the environmental noise contours policies of the Ministry of Housing, Urban Planning and the Environment (VROM); the role of the Ministry of Transport and Water Management in defending the interests of airport infrastructure and aviation; the role of the Ministry of Economic Affairs in regional economics; and last but not least the role of the Ministry of Finance’s plans for airport privatisation. Currently, interdepartmental coordination platforms aim to solve these horizontal coordination problems.

Cross-sector coordination problems between ministries in Japan led to ‘tribe wars’ in Japan in the past. Merging the Ministries of Land and Infrastructure helped to kill two birds with one stone. On the one hand, sector-orientation of bureaucrats was reduced, in particular at the former Ministry of Transport. On the other hand, political dominance of bureaucrats that plan public works with doubtful economic and environmental effects could be reduced, in favour of the Ministry of Finance.

Schiphol is, more than all other case studies, involved in *public-private institutional arrangements* in the airport region. The institutional arrangement Schiphol Area Development Company (SADC) which was set up to develop the Schiphol area can be described as an initially successful institutional innovation with coordination and a joint land supply company. This led to co-production of policy-making which is formally expressed by the membership of the Schiphol Group of the ‘Bestuursforum Schiphol’ for pre-determining new industrial and office locations, and intervening in the municipal land pool as shareholder of SADC. These engagements create a competitive advantage for Schiphol and indirectly for Schiphol Real Estate compared to other area developers and landowners in the airport region, since Schiphol itself is at the decision table for preparing land use plans. In the case of project developer Chipshol, Schiphol demanded a building ban for the Groenenberg area in the runway-approaching route for safety reasons. This ban was later withdrawn, as there were no safety problems. A normal material damage fee had to be paid, and the safety concerns of the air traffic controller could not be proven. This legal battle with Chipshol is one case, but entangling of interests in this unique institutional arrangement that has been set up to coordinate the airport area development, can easily appear again, as many industrial and office sites are planned. This is however not to say that the other airport case studies similar to Schiphol use informal institutions such as coordination platforms, political connections, and economic power to influence the policy-making process. Furthermore, the

decision making power of most coordination platforms in the patchwork quilt of the Schiphol region is also limited to consultation and negotiation.

#### *Legal institutions*

Last but not least legal institutions are analysed. Legal institutions are the legally embedded rules of the game of actors, as an outcome of institutions of governance, in – amongst other plans – legal procedures and property development. Here, analyses of legal institutional arrangements are distinguished on the international, national and local-regional level.

At the international level institutional changes are apparent on both the airside and the landside of the airport. Liberalisation and deregulation of the aviation market lead to changes in the position of the airport, since bilateral contracts are replaced by open skies in the case of Schiphol and Frankfurt. This challenges the airports to compete internationally and directly affects the position of the airport as a cityport. The aim of EU policies is therefore to create a level playing field, not only for airports but also for airplane noise contours. Informal institutions however hamper this trend. On the national level, connections between transport bureaucrats and the aviation sector are still strong. A similar conclusion on ingrained institutions can be drawn for the EU wide tendering process in the construction industry, where in the end local project developers are rewarded with orders. In Japan and East Asia, however, institutions are more ingrained and to a certain degree governments therefore miss opportunities. The aviation market is still based on politically sensitive bilateral contracts, which hamper the aviation network development. Furthermore, foreign developers are allowed to enter the Japanese market and might offer alternatives for the established construction market, but informal institutions hamper access to the bidding process.

Legal institutions – on the national level in particular – focus on noise contours. These contours vary between the cases and are difficult to compare. In general however, residential areas in the Randstad and in particular of Frankfurt Rhein-Main are affected by aviation noise. The more remote international airports in Japan affect few citizens. Protection from aviation noise varies from isolation in all cases to buying out in the case of Frankfurt Rhein-Main and Tokyo. Until today, buying out citizens is a political sensitive topic in the Netherlands. It is however remarkable that house prices and local economies do not show negative impacts of direct aviation noise. The use of noise contours is however limited. First of all, it differs from the experienced noise pollution. Second, it is a non-transparent and a technical issue, with narrow political margins. Few understand the noise contours and citizens regularly feel cheated by the policy makers.

Land use planning regulations near airports vary between the cases as well. The case of Frankfurt shows the legalistic style of policy maintenance in Germany: the Frankfurt forest surrounding the airport should be protected from urbanisation. More recently older industrial sites and former military fields do however show opportunities for redevelopment. The pragmatic interpretation limits the effects of the strict test on airport relatedness of land use on paper in the case of Schiphol in the Randstad. This contributes to further concentration and congestion in the monocentric airport city. At Haneda, MLIT still focuses on airside infrastructure and does not allow other developments on the airport island. In Narita, any industry is allowed but legal conflicts, image and the remote location hamper spatial-economic developments until today.

### *Actor coalitions in the institutional arrangements*

By drawing the conclusions on the spatial-economic and institutional position of the airport as a cityport in the city-region, it becomes possible to make an overview of the institutional arrangements in Table 10.1 and a typology of the actor coalitions by case.

The constellations of actors in the airport growth coalitions show differences and similarities in the case studies. In general, airport authorities, dominant airlines and national governments, in particular transportation authorities are at the core of the coalition. In the case of Schiphol, there has been a long tradition of cooperation between Schiphol airport, KLM and the Netherlands Ministry of Transport. This has been a tradition of political indecision to relocate or expand the airport. The main causes are uncertainties in costs and aviation growth, and necessarily followed the economic reality. In the end, indecision therefore is a decision in favour of the airport growth coalition.

The consensus of growth under conditions of safety and noise reduction for balancing the growth and environmental coalitions was successful in strict terms but has undermined the trust and confidence in the airport and governments since it created newly affected areas and (again) avoided political decisions. It was the aviation sector that – for the time being – again could hide behind the back of transport bureaucrats and political consensus making. The growth coalition in the case of Schiphol can therefore be described as a *semi-contested silent growth coalition* with a focus on the short-term. As the number of flights can currently increase, the growth coalition is in a passive mode. In the mean time, national ministries reconsider the role they play in the growth coalition, in particular the entangling roles of the Ministry of Transport and Water Management in stimulating and controlling the growth of the airport at the same time.

A growth coalition of national and regional government bureaucrats, airport and airlines, is at the heart of international airports in Japan as well, complemented with politicians and constructors. In contrast to Dutch indecision, in Japan public works are strategically planned on the long-term by the national government. In the case of Narita, the governors of Chiba and Tokyo and the Minister of Transport decided the location by among themselves. At the time of Narita's airport construction, local actors were not involved in this top-down process.

The ignorance of local actors and violent opposition in the end however has had effect: expropriation as a planning tool can no longer be used and partly therefore new airport island are build on artificial islands in sea, avoiding political conflict. Communities near the new airport islands are seduced by promising economic spin-off and thus the planning concept of the airport city in a coastal 'Rinku' town is developed. These promises can nevertheless not always be fulfilled. The actor coalitions in Japan can therefore be seen as *conflict-avoiding growth coalition* with a focus on long-term solutions.

In the case of Frankfurt Rhein-Main, the growth coalition consists of the airport, airlines and business interest groups. Here the growth coalition is the most contested coalition due to a strong opposition from the environmental coalition of environment and citizens groups. The conflict is played hard and open. Local municipalities are, similar as in the Schiphol case, torn apart by environmental problems and economic benefits. The growth coalition repeatedly has to proof the added value of airport expansion for the city-region. Because of the sensitivities, politicians and bureaucrats do not participate actively in the growth coalition and have a more mediating

Table 10.1 Overview of institutional arrangements and growth coalitions in the case studies

Institutions	Schiphol/Randstad	Frankfurt/Rhein-Main	Haneda and Narita/Tokyo
Socio-cultural	Consensualism and pragmatism tone down interventionalism and integration of planning	Federalism and corporatism tone down interventionalism and planning ambition	Japanese corporatism, conflict avoidant consensualism and pragmatism tone down centralism and formalism
	Planning depoliticised	Planning politicised	Planning depoliticised
Financial	Centralised but relatively independent	Decentralised with tax competition	Centralised with dependency mindset
Economic	Active government in land supply and planning; withdrawal	Active government by tax competition; stable	Active government by public works; withdrawal
	Cartels, collusion, old boys network; opening	Open market mechanism, bribing, cartels reduced by legalistic policy enforcement	Closed networks, bid rigging, old boys network; slowly opening
Governance	Decentralised unitary; Decentralisation finances Centralisation of planning	Decentralised; stable, lock in	Centralised; Decentralised finances Centralisation of planning
	Sector competition; reduced by job rotation and coordination platforms	Merged ministries, legal bureaucrats; integration	Merged ministries; integration
	Airport actively involved, unclear roles, policy making patchwork quilt	Airport getting more involved, clear roles	No airport involvement, lack of local cooperation
	Airport public, monopolist	Airport public-private, increase in competition	Airport competition after privatisation
Legal	Late tendering regulation, moderate self-correcting mechanism	Clear tendering regulation Law enforcement	Late tendering regulation, poor self-correcting mechanism
Coalition	Semi-contested silent growth coalition, focus on short-term	Contested open growth coalition, focus on medium-term	Conflict avoiding growth coalition, focus on long-term

and facilitating role. In the end however, the mediation committee on airport expansion could not obviate a political discussion based on the logical and consistent argumentation of both growth coalition and environmental coalition. Airport expansion is foreseen with negotiated trade-offs for the affected groups, for instance in a ban on night flights. The case of Frankfurt airport development can best be described as a *contested open growth coalition* on the medium-term, driven by economic interests.

## 10.4 Institutional learning

Conclusions on the spatial-economic and institutional position of the airport as a cityport in the city-region, can finally lead to answering the third research question on institutional learning within the cases and between the cases. We focus here on the most problematic institutional arrangements in the case studies, where institutional change is urgently needed and institutional learning is required or already taking place. The theoretical framework for this institutional change and learning has been introduced in chapter 5.

*3. If necessary, which institutional changes are required to adjust to the changed spatial-economic realities?*

*3a. What institutional learning takes place within the case studies?*

### *Randstad-Schiphol*

In the case of Schiphol in the Randstad city-region, the most problematic institutional arrangements are: the economic institutions of cartel formation, horizontal coordination problems at the national level, the role differentiation as public-private institution of governance, the monopoly and embeddedness of the airport, as well as regional coordination.

In the discussion of cartels and bid-rigging on the Dutch construction market, signs of institutional change are found. Although these institutions were ingrained as informal institutions, public debate and new bidding regulations made the bidding process more transparent. Although construction companies are probably still meeting regularly, the interviews indicate that there is no longer a systematic approach for bidding and the era of bribing civil servants with wining and dining is probably a thing of the past. Institutional change here has been a matter of raising awareness of the illegal practises and moral standards, a learning process by fits and starts.

In terms of horizontal coordination, an institutional learning process is taking place. Interdepartmental coordination commissions improve the situation of 'tribe wars' between national ministries of infrastructure, urban planning, economic affairs and finances that are involved in spatial and economic planning. The question however remains, how sustainable this solution will prove in the future, and if other policy fields will also be equipped with similar coordination commissions.

The institutional innovation where public and private actors cooperate in airport area development was successful for a long time. However, institutional change is urgently needed in the case of role differentiation in public-private governance. The roles of Schiphol in policy-making and the role of the Ministry of Transport and Water Management in both developing and controlling the airport lead to a situation where other actors' compromises become suspicious and appearances are against the growth coalition partners. A clear re-arrangement of positions and roles can open the policy arena for the required political conflict and outcomes rather than political indecision and short-term solutions.

A repositioning of actors in the Schiphol area can be supported by withdrawal of government as airport owner, and creating a European level playing field of competing airports, in order to break down the local airport monopolies. Therein, institutional change is urgently needed, in particular in order to improve the regional embeddedness of the airport. The case of Schiphol shows the typical characteristics of the inability of 'hybrid' organisations (i.e. an accumulation



of institutional arrangements) in learning. The conclusion of Stevens (1997) on the institutional position of harbours therefore fits in with conclusions of institutional learning in the case of Schiphol:

*“Hybrid organisations are extraordinary capable of solving specific problems within their existent frameworks. At first they are considered as extremely ‘smart’. This is not surprising, since they are able to change their mask, and prevail their own goal-oriented starting points in interactions if necessary. On the long run however, they are reproached with opportunism and unreliability, and many outsiders cannot appreciate this kind of being smart. (...) At first the hybrid organisation is reproached with unreliability, but on the long term risks are rolled off to society in general. The costly ad hoc steering will not be of much use for the long-term. At last, because of the impalpable nature, one can expect isolation and inadequacy to respond to incentives from others.”* Stevens (1997:38-39)

Although we underline the development pattern of these hybrid organisations as Schiphol, it would be most interesting to know how to deal with these organisations for the long-term. Based on the analysis in the second part of this thesis, we would suggest that their initial success should be cherished and these kind of institutional innovations made possible, but finite and later to be corrected by focussing on clear role differentiation between the government as a supervisor rather than a project developer, the airport as airport authority and a limited number of coordination platforms with clear jurisdiction.

Finally, the case of Schiphol in the Randstad city-region is an example of creating new institutions without tackling the problematic older and unfit institutions. A patchwork quilt of coordination platforms with limited legislative powers covers both the Schiphol airport region and the Randstad city-region. Newly established platforms become ‘hot’ for coordination until decisions have to be made; when there is no consensus, new platforms are set up. This can create institutional innovations, and enhance the connectivity in the city-region, but can also lead to political indecision. Changing the structure of national government, provinces and municipalities regularly failed in the past. Within those governmental frameworks institutional changes, with a defined jurisdiction and limitation of actors’ roles, is urgently needed. Insiders however argue that the issue is too complicated to unravel and that it works passably, despite its shortcomings.

#### *Frankfurt Rhein-Main*

In the development process of Frankfurt International Airport as a cityport in the Rhein-Main city region, there are lock-ins in the financial and governance arrangements that require institutional change and learning.

The lack of regional cooperation has a long history and despite several attempts could not be solved. It does however not only lead to negative results in terms of urban sprawl, but (it) also has a positive effect in terms of municipal specialisation in the Frankfurt Rhein-Main city-region. The problematic history of regional cooperation also created alternative coordination platforms. As market and non-governmental organizations found that governments are unable to change these institutions of governance, their own initiative and willingness to contribute to the competitiveness of the city-region are growing. Then an institutional lock-in becomes a blessing in disguise for new institutional arrangements that involve third parties and which

contribute to the connectivity in the city-region. The question is however, to what extent these new coordination platforms will work out without any legislative or governing instruments.

In terms of financial institutional arrangements, corporate tax competition is severe. Despite the contribution to a more colourful pattern of cityports in the city-region, this harms the business climate as well. As there is no learning process in the city-region going on in this respect, the other cases might offer models for institutional learning here; see below.

#### *Tokyo Haneda and Narita*

Severe problems in the institutional arrangements surrounding Japanese international airports are in particular apparent in terms of economic institutions (construction and selection of public works) and vertical institutions of governance.

Close cooperation between LDP politicians, MLIT bureaucrats and construction companies in order to establish public works was an innovative institutional feature of the developmental state model in the 1950s, 60s and 70s. However, for a longer time now, it becomes clear that this institutional arrangement needs reconsideration, because it leads to an economic and environmental burden. Institutional change could take place for two reasons: first, governmental spending on public works had to be reduced, with the economical standstill as a blessing in disguise. Secondly, the Ministry of Transport and Ministry of Land merged and decreased in political power, and also broadened its view to other policy sectors than infrastructure alone. This is however institutional change initiated by outside force rather than internal learning itself; the system could not learn from the raised problems, and the institutional arrangement might not be able to deal with similar problems in the future without this outside help.

It should be noted that Japan's airport planning focuses on long-term solutions with expensive airports that learn to one's cost, rather than choosing short-term expansion models. The surroundings of the airport however show typical institutional problems for developing the airport area as a cityport in Japan. In particular the centralisation of institutions of governance are problematic here and need further change. National and regional/local governments cannot break through the current lock ins. On the one hand, the central government decides and appropriates decision-making power, while it is not always the appropriate level of decision-making. On the other hand local and regional governments are willing to accept more decision-making power, but in the end face the problems of their institutionally ingrained dependency mind-set.

#### *3b. What institutional learning experiences can be projected on the other case studies?*

In case institutional learning does not take place in an evolutionary manner, or institutional change is not executed by outside force such as economic realities, institutional learning from other cases can be taken in consideration. This interregional institutional learning can either take place by copying (copy and impose a model), or bricolage (fit a model to the local circumstances).

The theory and practises on this institutional transplantation do however temper the ambitions and expectations. In particular, in practise copying often failed, and bricolage failed regularly. Interestingly, out of fourteen international cases, only Dutch infrastructure planning was found as a success in copying, made possible through an already existent group of supporters of a unitary model in the beginning of the 19th century (De Jong *et.al.* 2002). But this thesis has

shown that the model of this Ministry within the entire governance model is also not without its problems either – the ‘state within the state’ model even becomes increasingly problematic (cf. De Jong 2002a).

In general, specific legal frameworks or procedures are more problematical to adopt than more general and abstract policy lessons, ideas and ideologies. This conclusion sets the playing field of institutional learning here: alternative models and ideas will be pointed out, but the ambition of introducing a specific model for solving institutional problems should be restrained. Finally, reformers do best when they are prepared for oncoming windows of opportunity, with the right political momentum, and save energy to act at such moments.

For these reasons, we limit the projection of the learning experiences to general notions that can be considered more in detail in debates over the case studies' problematic institutional arrangements. It would not be without hazards to introduce one element of a specific institutional arrangement into another. It might be even wiser to limit to general notions on successful institutional models for an institutional design of a promising model.

*Financial institutions:*

- Rhein-Main can learn from Randstad in terms of fiscal redistribution and avoiding tax competition on the local and regional level;
- Tokyo and Randstad can learn from Rhein-Main in terms of socio-economic profile and an independent mind-set;
- Japan can teach Randstad and Rhein-Main how infrastructure-related and initially loss-making public works can be developed with a consideration for the long term.

*Economic institutions:*

- Japanese airport areas can learn from Schiphol in terms of creative public land supply models and the role of private developers' interest;
- All cases can learn from Anglo-Saxon development models that involve stakeholders from the beginning (land ownership) to the end (business park management) with constant returns on investment;
- Schiphol can learn from Frankfurt's model of intensive land use and a polycentric pattern of urban development;
- Schiphol/Randstad can learn from the self-imposed limitations and clear roles of actors in the case of Frankfurt Rhein-Main;
- The Japanese construction market can learn from the enforced and self-cleaning of the Dutch construction market's bid-rigging; both can benefit from the German legalistic style of dealing with cartels.
- For long-term solutions of an airport in the North Sea, the Netherlands can learn from the experiences of cost-overrun in the case of Kansai International, and more recent economic successes of Chubu International;
- The EU can for her level playing field in aviation learn from the recent shifts in airports, charges, monopolies, and efficiency in Japan after privatisation;
- Schiphol can learn from the effects of a minority share privatisation of Frankfurt.

*Institutions of governance:*

- A large country such as Japan can learn from the benefits of decentralised planning in a federal state like Germany;
- The Netherlands can learn from the effects of merging ministries that are involved in spatial and economic planning as well as infrastructure;
- Introducing an interdepartmental coordination platform is a temporarily alternative from the Netherlands for dealing with horizontal coordination in Japan and Germany;
- Rhein-Main show the opportunities of non-governmental cooperation platforms for the city-region as a substitute for governmental acting, relevant for the Randstad;
- The patchwork quilt of coordination platform in the Schiphol region can inspire problematic airport-region relationships in Japan in order to come to a consensus.

*Legal institutions:*

- Japan can learn from the advantages of international open markets for aviation and the construction industry in the E.U. and the U.S. International agreements can increase the size of the market, which can lead to greater choice and lower prices;
- Schiphol can learn from unorthodox tools such as buying off homes and paying compensation money, common in Japan and Germany;
- In general, the Netherlands and Germany can learn from the flexible zoning in Japanese land use plans, as policy goals can conflict with used land use planning tools;
- In the specific case of airport planning however, Japanese land use planning can be more permissive to other land uses than airside infrastructure, as is common at Schiphol.

Although these possibilities in institutional learning can function as a mirror and a perspective, they however should not be seen without their regional embeddedness. Less tax competition in Frankfurt Rhein-Main might lead to less specialisation of towns and cities in the long run. Cartels in the construction industry were banned in Germany successfully; in Japan and the Netherlands they however also contributed to the era of industrial catch-up after 1945. As this catch-up has been established now, legal enforcement of breaking cartels and collusion can be an effective tool to break the inefficient institutions.

Interregional learning can contribute to expected problems and current political debates. In particular the political debate over Schiphol airport privatisation on the one hand and fear of Air France – KLM making this airport a smaller hub in the future, can learn in particular from Frankfurt. It is too early to conclude, but the shareholders' position of Lufthansa in Fraport can increase the embeddedness of the airline on the one hand, and expresses a more dominant role of airlines in the airport-airline relationship, with dedicated terminals of the airport user. In the end even the EU can learn from approaches to break the monopolies of airports as not only found in Japan, but also in the U.S.

Finally, if institutional learning is yet a bridge too far, this thesis indicates by the spatial-economic analysis lessons for policy-making with a shorter time horizon. In particular the benefits of sustainable and substantial infrastructure planning as well as infrastructure-related planning in the airport region of Frankfurt Rhein-Main and Tokyo can inspire the rapidly urbanizing Schiphol area. Schiphol in the Randstad shows characteristics of being 'penny wise, pound foolish' by considering the returns on investment and future uncertainties of every road and rail constructed in this area, but also in airside investment for decades.

## 10.5 Reflection and discussion

Now that conclusions and lessons in learning have been drawn, it is possible to reflect on the research questions, the applied theories and methodologies briefly. In particular, this includes learning processes, institutional analysis, new institutional economics, and benchmarking.

The first and most general question that can be put forward is: what is the use of an international comparison at all? The point of departure was to explore different responses to common challenges, and to learn where possible. One of the indirect aims of this book was to see what the usefulness of an international comparison is. The cases have been compared in depth, but interregional learning is limited because of the limitations in successfully copying or bricolage of (parts of) other institutional arrangements. The benefits of international comparisons should thus not be found in introducing institutions such as a *Fremdkörper* to other cases. International comparison can however contribute in two ways. First of all, it offers a mirror to the 'own' case study; challenges are similar but vary in the details, and approaches are different. Secondly, international comparisons are useful to explore new directions and strategies. They can provide eye-openers for the cases involved.

Where interregional learning provides a mirror and eye-openers, in particular the process of intraregional learning needs further research. Actors in the cases were partly able to learn institutionally, but often outside-force (incidents, calamities or occupation) led to institutional change rather than smart organization of the learning process. This internal or deuterio learning provides the best 'solutions' for dealing with institutional lock-ins and path-dependencies, as actors are more aware of and familiar with the self-imposed and accepted alternatives. In addition to interregional and intraregional learning, it might be possible to set up a kind of institutional design that offers the best conditions for developing the airport as cityport in the city-region. The problem is however, that the every design faces a specific regional embeddedness and therefore requires a specific fit to become effective in practice.

The applied actor-oriented institutional theory in the second part of the book has shown to be very useful for studying the cases. The strengths of the methodology have been in particular the flexibility in using it. It makes case study research with large differences in size, culture and context possible, as applied here for the Randstad, Frankfurt Rhein-Main and the Tokyo Metropolitan Area. This flexibility at the same time can be the major disadvantage of using institutional analysis. In particular, it is difficult to set the limitations: rules of the game for what, how and when exactly? This argument also holds for the terms used in institutional analysis, such as path-dependency, rent-seeking, free-riding and lock-in of institutions. In sum however, the wide variety of case studies could only be studied with general characteristics that give it the broad and open character it has.

One of the problems in institutional analysis is the nature of institutions themselves. One can build an argument on the path-dependent and ingrained nature of institutions, and the difficulties in changing in particular the informal rules of the game. One might almost conclude policies and strategies for changing often fail and become meaningless. But then, suddenly, institutions can change by an incident or calamity, and at a political opportune moment, timing that is impossible to predict. On the other hand, these windows of opportunity would not open without the drive for institutional change either. Therefore, in the end, institutional analysis is

more suitable for descriptive problem analysis as been done in this study in detail, than for more explorative studies over possible future change.

In the first part of the book, benchmarking was used to compare the case studies in terms of spatial and economic dynamics. Benchmarking is criticized in the sense that best practises from case studies with other milieus would lead to mist before one's eyes. In this case, however, benchmarking was a useful tool to analyse the case studies. Both benchmarking and institutional learning offered a mirror and a context for the case studies, without arguing to copy elements of best practises.

It is unfortunate that not all data in the spatial-economic analysis are comparable. This is considered as a typical and inevitable feature of international comparative research. Nevertheless, the analyses of cityport dimensions show some data comparison where better comparable data might bear fruit. In the node/place model, it is rewarding not only to measure the node values, but also to frame the place values. This would provide better insight in the development and balance of node and place, in particular for the discussion of an evolutionary development of well accessible locations with urban functions (such as train stations in Japan) versus the planned development (such as new towns in the Netherlands). Furthermore, the economic dimensions of the cityport could not be elaborated as intended, due to a lack of data on productivity at the location. Measuring space productivity (added value per square kilometre), as done in the Netherlands, might not only bring forward interesting results and differences in general, it might also give a better understanding in the specific economic (sector) development on the very local cityport level rather than the city or city-region level.

Finally, academic debates include the discussion over the use of institutional economics in urban and regional planning. Traditionally, new institutional economics focus on economics. This book attempts to show that new institutional economics can also be applied to urban and regional planning. Although a further elaboration of new institutional economics for planning needs to be done, it provides relevant insight into the importance of economic developments before planning is considered at all.

# Samenvatting

## Luchthavens als Cityports in de Stedelijke Regio

*Ruimtelijke economische en institutionele posities en institutioneel leren in Randstad-Schiphol (AMS), Frankfurt Rhein-Main (FRA), Tokio Haneda (HND) en Narita (NRT)*

### Inleiding

In mei 2006 verraste de Amsterdamse wethouder Asscher in de Eerste Kamer vriend en vijand met de wens niet een Schiphol minderheidsbelang te willen privatiseren, maar zelf juist aandelen van het Rijk over te willen nemen. De strijd tussen het Rijk en de gemeente Amsterdam verhard en leidde uiteindelijk tot een vernietiging van het Amsterdamse veto tegen privatisering per Koninklijk Besluit. Amsterdam zal hier tegen in beroep gaan bij de Raad van State en een beslissing om een minderheidsaandeel Schiphol te vervreemden wordt vooruitgeschoven.

Zowel de gemeente Amsterdam als het Rijk willen de positie van Schiphol versterken en op lange termijn zeker stellen. Beide partijen (actoren) zijn ervan overtuigd dat de eigen voorstellen om de bestaande 'spelregels' (instituties) aan te passen het meeste bijdragen aan de ruimtelijke economische ontwikkeling van Schiphol in de Randstad. Het aanpassen van de bestaande instituties is een continu proces dat veelal achter de economische realiteit aanloopt. Ondertussen bevindt Schiphol zich midden in het internationale krachtenveld van concurrerende luchthavens en meent zelf het meest gebaat te zijn bij privatisering. Zeker nadat Schiphol zich in de jaren negentig heeft kunnen ontwikkelen tot een mainport, is het onduidelijk of het veranderen van de bestaande institutionele arrangementen tot een vergelijkbaar succes zal leiden.

Het drieluik van ruimtelijke economische ontwikkelingen, de bestaande institutionele arrangementen en de znodige aanpassing van deze spelregels aan de veranderde omstandigheden staan centraal in dit proefschrift. Deze afstemmingsproblemen zijn met name relevant voor gecoördineerde markteconomieën als Nederland, Duitsland en Japan, waarin de nauwe relaties tussen overheden en marktpartijen juist bijdragen aan een stabiele en kwalitatieve ontwikkeling op lange termijn. De discussie over privatisering van de luchthaven is daarin slechts één van de afstemmingsvraagstukken die op het regionale niveau spelen. Andere vraagstukken zijn onder meer welke overheden beslissen over verdere uitbreiding, op welke wijze samenwerking in de regio plaatsvindt, hoe de financiële verhoudingen tussen overheden zijn georganiseerd en op welke wijze wordt samengewerkt met marktpartijen als projectontwikkelaars en investeerders.

Het gaat in dit onderzoek niet om de luchthaven zelf, maar om de economische en institutionele posities van de luchthaven als schakel in de stedelijke regio. Het besef groeit dat de stedelijke regio zelf een belangrijke speler is in het creëren en benutten van haar eigen economische kansen om te kunnen concurreren op wereldschaal. Daarin is het van belang dat strategische actoren

gezaamenlijk in actorcoalities de institutionele arrangementen waar mogelijk verder ontwikkelen om de economische concurrentiepositie te behouden.

De concurrentie tussen stedelijke regio's beperkt zich daarin niet tot *global cities* zoals New York en Londen, maar loopt door in middelgrote stedelijke regio's zoals de Randstad en Frankfurt Rhein-Main. Deze polycentrische regio's hebben niet één dominante stad, maar kennen meerdere stedelijke centra. Het geheel aan centra is in een internationaal concurrerende polycentrische regio meer dan de som der delen. Naast de traditionele centra zijn in de stedelijke regio ook nieuwe centra te vinden waarin economie, infrastructuur en stedelijkheid samen komen. Deze locaties worden in dit onderzoek geduid als *cityports* en vormen een portaal, verblijfplaats en verkeersknooppunt in de regio. Deze cityports zijn strategische locaties, zoals nieuwe zakencentra, stationsgebieden en luchthavens. Aangezien luchthavens tot de economisch meest dynamische cityports behoren, gekoppeld zijn aan internationale infrastructuur en nabij stedelijke concentraties liggen, spitst dit onderzoek zich hierop toe. Deze strategische locaties bieden ruimtelijke economische kansen voor intensief, kwalitatief en gemengd ruimtegebruik, kansen die niet altijd benut worden.

In internationaal vergelijkend perspectief kennen luchthavens als cityports in de stedelijke regio vergelijkbare problemen en planningsopgaven, maar een variëteit in aanpak. In tegenstelling tot veel voorgaande studies ligt de nadruk in deze studie niet op de milieu- en geluidsproblemen bij het zoeken naar technische oplossingen, maar juist op het benutten van ruimtelijke en economische kansen die ontstaan rondom de luchthavens. Hierin schuilt de maatschappelijke relevantie van het onderwerp.

De wetenschappelijke relevantie is naast het internationale vergelijkend leren gelegen in de generalistische aanpak: het onderzoek combineert onderzoeksvelden uit de sociale wetenschappen, waaronder economische geografie, planologie en bestuurskunde. De uitdaging in een generalistische studie is het vinden van een balans tussen breedte en diepte. Het scala aan onderwerpen mag niet tot een oppervlakkige behandeling van thema's leiden, en is in deze studie ondervangen door een theoretisch kader voor elk deelonderwerp en terugkoppeling met de relevante vakspecialisten in theorie en praktijk.

## Vraagstelling en onderzoeksanpak

Tegen de geschetste achtergrond, aanleiding en relevantie van het onderzoek is de probleemstelling van het onderzoek:

*Wat zijn de ruimtelijk economische en institutionele posities van luchthavens als cityports in de stedelijke regio, en welke institutionele leerervaringen kunnen zonnig tot aanpassing aan de veranderde ruimtelijke economische omstandigheden leiden?*

Deze onderzoeksvraag is opgebouwd uit drie vragen die refereren aan (1) de ruimtelijk economische positie en (2) de institutionele positie van de luchthaven als cityport in de stedelijke regio, en ten slotte (3) het institutionele leer- en aanpassingsproces. Het casestudie onderzoek bestaat uit twee delen: de ruimtelijke economische analyse en de institutionele analyse met institutioneel leren, beide op basis van dataverzameling, documentenanalyse en interviews.



### 1. *Economische positie*

Om de eerste vraag over de ruimtelijke economische positie te beantwoorden is gestart met een regionale benchmark. Deze analyse is een verkenning van ontwikkelingen in het verleden (de regionale prestaties) en de verwachting voor de toekomst (het regionale investeringsklimaat). Vervolgens wordt ingezoomd op de cityports binnen de stedelijke regio. Typen stedelijke centra als stedelijk portaal binnen de polycentrische stedelijke regio's worden daarin onderscheiden, zoals traditionele en nieuwe zakencentra, edge cities en mainports als zee- en luchthavens. De cityport zijn daarbij geanalyseerd op basis van economische, stedelijke en infrastructurale dimensies. De economische dimensie is bepaald op basis van de ruimteproductiviteit, onder meer uitgedrukt in huurprijzen. De infrastructuur dimensie wordt vastgesteld op basis van het aantal verbindingen en ontsluitingen van de locatie, de knoopwaarde. De stedelijke dimensie drukt de dichtheid van inwoners en arbeidsplaatsen in de cityport uit. Vervolgens is de ruimtelijke economische positie van in het bijzonder de luchthaven als cityport in de stedelijke regio bepaald. Daarbij wordt gelet op de ontwikkeling van de luchthavens van de stedelijke regio's in termen van passagiers, vracht, inkomstenstructuur, economische impact op het luchthaventerrein zelf en de spin-off van de luchthaven ten aanzien van de stedelijke regio.

### 2. *Institutionele positie*

De economische dynamiek rond de luchthaven biedt een achtergrond voor inzicht in de verstedelijkingsprocessen van de luchthaven als een cityport en als onderdeel van het stedelijke netwerk. De verschillen in dynamiek op vergelijkbare luchthavens, alsmede de verschillen in aanpak zijn daarmee echter nog niet verklaard. Het tweede deel van het boek geeft inzicht in de wijze waarop actoren in het planningproces binnen het geheel aan spelregels invulling geven aan de luchthavengebiedsontwikkeling als cityport in de stedelijke regio. Het is daarom van belang om de actoren en de dynamische institutionele kaders van de actoren in kaart te brengen, om het gebiedsontwikkelingsproces te kunnen doorgronden. Daarvoor zijn eerst de vanwege macht en middelen relevante actoren in het speelveld van de ruimtelijke inrichting verkend: met name overheden, beleggers, projectontwikkelaars, luchthavenautoriteit, luchtvaartmaatschappijen, planbureaus en andere adviseurs. Tussen deze partijen bestaan machtsspellen en belangentegenstellingen in de ontwikkelingsrichting, maar worden ook coalities gevormd die tot incidentele of structurele ontwikkeling leiden.

Deze strategische actoren bewegen zich binnen spelregels, de instituties. Instituties kunnen worden onderverdeeld in formele spelregels (met name regels en wetten) en informele spelregels (handelingen en praktijken, normen en waarden). In dit onderzoek is op basis van ervaringen in de casestudies een onderscheid gemaakt tussen verschillende groepen instituties:

- *Sociaal-culturele instituties*: lokale culturele kenmerken en specifieke inbedding gebaseerd op historische wortels en nationale beleidsstijlen;
- *Economische instituties*: de condities waarbij marktpartijen bereid zijn tot investeringen in ruimtelijke ontwikkeling in samenwerking met de overheden;
- *Financiële instituties*: de wijze waarop publieke partijen investeringsprikkels, subsidies en belastingen of directe investeringen in publieke werken inzetten bij het prikkelen van private partijen in de gebiedsontwikkeling;
- *Bestuurlijke instituties*: de horizontale en verticale organisatie van overheden, en coproductie van beleid met niet-overheidspartijen (*governance*);

- *Juridische instituties*: wettelijk verankerde spelregels die tot uiting komen in plannen, procedures en eigendomsverhoudingen.

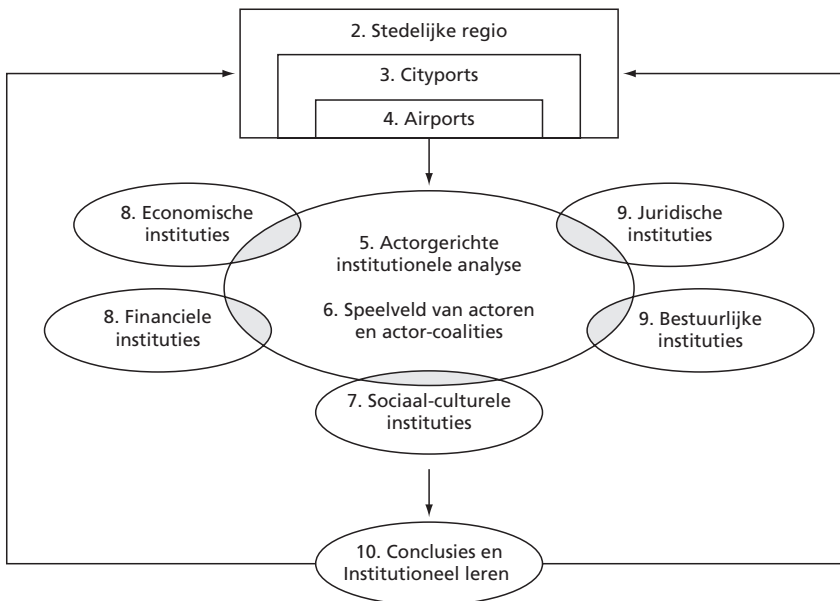
### 3. *Institutioneel leren*

De derde en laatste onderzoeksvraag betreft een reflectie op basis van institutioneel leren, waarbij het erom gaat in hoeverre in de handelingspraktijk van actoren de instituties worden meegenomen en gereproduceerd, of juist worden aangepast. Dit proces van leren en aanpassen kan zowel binnen de casestudies zelf plaatsvinden (*intraregionaal leren*) als tussen de casestudies (*interregionaal leren*). Naast het in kaart brengen van het eigen zelflerende vermogen kan een casestudie vergelijking leiden tot nieuwe perspectieven en oplossingsrichtingen.

## Institutioneel analysemodel

De economische theorie kan helpen inzicht te verschaffen in de economische ontwikkelingen in de stedelijke regio, met de daarmee samenhangende ruimtelijke ontwikkelingen. In de institutionele economie staan, naast vraag en aanbod van schaarse goederen, ook de spelregels tussen overheden als marktmeesters en andere marktpartijen centraal. De economische sectoren staan centraal in de nieuwe institutionele economie, naast krachten in het gebiedsontwikkelingsproces zoals locatielkwaliteiten, vastgoedvraag en strategieën van ontwikkelende partijen.

De institutionele analyse is dynamisch en gericht op de strategische actoren. Deze actoren kennen een evolutionair ontwikkelingstraject waarin ervaringen uit het verleden mede richting



Figuur S1 Analyse kader onderzoek in hoofdstukken

geven aan het toekomstige ontwikkelingspad. Spelregels kunnen daarin veranderen en mogelijk aangepast worden aan nieuw ontstane situaties. Een aantal spelregels werkt soms belemmerend in de ruimtelijke economische ontwikkeling. Indien deze belemmeringen frustrerend gaan werken voor het gehele spel in de gebiedsontwikkeling is er sprake van een *performance crisis*. Institutionele verandering is dan urgent, maar roept verzet op omdat bepaalde actoren vasthouden aan of baat hebben bij de bestaande spelregels. Bovendien is het effect van nieuwe institutionele arrangementen nog onzeker, maar zijn er wel hoge aanloopkosten. Dit leidt tot padafhankelijk gedrag, het volgen van reeds betreden paden die niet tot het gewenste resultaat leiden, maar wel veilig zijn. Elementen als padafhankelijk gedrag, vastroestende posities en institutionele innovaties kunnen met behulp van een op actoren gerichte institutionele analyse in kaart worden gebracht. Daarbij kunnen leerervaringen van andere casestudies reflectie bieden op de eigen problemen en het zelfcorrigerend vermogen versterken, maar ook alternatieven aandragen voor problematische instituties.

#### *Casusonderzoek*

De casestudies zijn geselecteerd op basis van de economische en ruimtelijke dynamiek in de polycentrische stedelijke regio, regio's die beschikken over grote internationale luchthavens met een variatie in aanpak van de luchthavengebiedsontwikkeling. De eerste casus is de Amsterdamse luchthaven Schiphol (AMS) in de Randstad, de stedelijke regio in het westen van Nederland. Deze casus is om verschillende redenen interessant om te onderzoeken. Ten eerste poogt de Randstad zich te ontwikkelen tot een samenhangende stedelijke regio, ondanks de verschillen tussen Noordvleugel en Zuidvleugel. Daarnaast is Schiphol, als cityport gelegen midden in de polycentrische Randstad, de vierde luchthaven van Europa. Schiphol speelt als mainport een cruciale rol in de nationale economie.

De tweede casus is Frankfurt International Airport (FRA) in de stedelijke regio Frankfurt Rhein-Main in het geografische en economische hart van Duitsland. Deze polycentrische regio is vergelijkbaar met de Randstad in schaal en structuur. De luchthaven ligt midden tussen de kernsteden en heeft zich ontwikkeld tot derde luchthaven van Europa. Ondanks overeenkomsten in economie en cultuur, is de aanpak van de ontwikkeling van de luchthaven als cityport in de stedelijke regio duidelijk verschillend van de Randstad, met name door de afwijkende bestuurlijke context in het federale Duitsland.

De derde onderzochte casus is de stedelijke regio van Tokio met de grootste luchthaven van Azië (Haneda) in de Baai van Tokio, en de internationale luchthaven in Narita, ten oosten van de stad. Stedelijke druk in het centrum, alsmede regionale planning hebben geleid tot een polycentrische ontwikkeling met concentraties en cityportontwikkeling, met name bij treinstations. Deze casus is met name interessant om te zien hoe de specifieke Japanse institutionele setting inspeelt op de gebiedsontwikkeling rondom deze luchthavens, ondanks het schaalverschil met de andere casestudies. Om het interne leerproces te volgen is het daarbij essentieel om recente ontwikkelingen van luchthavens in zee in Kansai en Nagoya in het onderzoek te betrekken.

## Onderzoeksresultaten en conclusies

### *Stedelijke regio*

De stedelijke regio's presteren economisch beter dan de nationale economie gemiddeld. Dit kan met name verklaard worden door het sterke aandeel van de dienstensector in de regionale economie en een constant proces van schaalvergroting en innovatie. De Randstad is succesvol in transport, het aantrekken van Europese hoofdkantoren en zakelijke dienstverlening. Frankfurt Rhein-Main excelleert in transport, bankieren en congressen. Tokio is de internationale hub voor Japan met haar hoofdkantoren, banken en innovatieve zakelijke diensten. Daarnaast hebben Rhein-Main en Tokio ook nog een sterke hoogtechnologische productiesector. Dit wijst op een meer gevarieerde sectorstructuur dan in de Randstad, mede ingegeven door een grotere thuismarkt van Duitsland en Japan.

Het investeringsklimaat in de onderzochte regio's is ten opzichte van het nationale gemiddelde sterk, met name door de aantrekkelijke arbeidsmarkt en stedelijke kwaliteiten. Dit beperkt zicht niet tot de traditionele centra, maar geldt in toenemende mate ook voor nieuwe centra, hetgeen bijdraagt aan de polycentrische ontwikkeling van de stedelijke regio. Er zijn ook grote verschillen in investeringsklimaat tussen de cases. Tokio's sterke kanten zijn de grote en gemiddeld hoogopgeleide arbeidsmarkt, het kritische consumentengedrag en de spoorinfrastructuur. Problematisch zijn de moeilijke toegang tot de markt voor nieuwkomers en de achterblijvende luchthaveninfrastructuur. Luchthavens zijn samen met markttoegang juist de sterke troeven van Frankfurt Rhein-Main en de Randstad. Motivatie en opleiding van personeel is een zwak element in het investeringsklimaat van de Randstad. In Frankfurt maakt het belastingklimaat het investeringsklimaat juist zwakker, hetgeen veroorzaakt wordt door concurrentie tussen gemeenten op basis van bedrijfsbelasting.

De mogelijkheid en de ambitie van actorcoalities om tot concurrerende en samenhangende stedelijke regio's te komen, die concurreren op wereldniveau, verschillen tussen Tokio, Rhein-Main en de Randstad. In Tokio was de concurrentiekracht op mondiaal niveau tot voor kort geen expliciet onderdeel van de ontwikkelingsstrategie. Het was eerder zaak om door de risico's van aardbevingen en stedelijke groei de hoofdstedelijke functies niet te laten verplaatsen naar gunstigere regio's. Meer recentelijk spelen stedelijke herontwikkelingsprojecten een belangrijke rol in het behouden van de dominante positie van Tokio in Oost-Azië. In Frankfurt Rhein-Main spelen regionale media, een vervoersautoriteit en economische belangenvertegenwoordigers een cruciale rol in de ontwikkeling tot concurrerende stedelijke regio. Dit is vooral het gevolg van langdurige bestuurlijke en politieke onmacht om tot regionale samenwerking te komen. De problemen in de Randstad om tot een stedelijke regio te komen zijn terug te voeren op de relatief grote omvang van de Randstad ten opzichte van de rest van Nederland, de dichtheid van bestuurslagen, het gebrek aan bewustzijn van de Randstad als schaal van de dagelijkse activiteiten, en de angst voor grootstedelijke problemen als armoedeconcentraties en files.

### *Cityports*

Binnen de stedelijke regio bevinden zich de onderscheiden cityports, waaronder traditionele binnenstedelijke centra (zoals Amsterdam, Frankfurt, Tokio), nieuwe zakencentra (Zuidas, Westend, Shimbashi), interne edge cities (Sloterdijk, Hanauer Landstrasse, Ebisu), remote edge cities (Amersfoort, Eschborn, Makuhari), en gespecialiseerde subcentra (Alexandrium, Riedberg, Odaiba). Daarnaast moet een aantal typen cityports worden toegevoegd als nieuwe ruimtelijke

concentraties in de regionale economie. Voorbeelden daarvan zijn de greenports (Aalsmeer en Westland in de Randstad) en kennisintensieve productie in Rüsselsheim (Rhein-Main) en Machida (Tokio). Daarnaast kent Tokio commerciële centra zoals Shibuya en Shinjuku, culturele centra zoals Asakusa en Ueno en leisure centra als Disneyresort in Urayasu. Het gebied tussen de stedelijke centra en luchthaven ontwikkelt zich als externe edge city, met name in de Randstad en in Frankfurt.

Ten aanzien van de economische dimensie van de cityports valt op dat er grote verschillen in huren zijn tussen de regio's, maar ook binnen de regio's. Opmerkelijk is dat de huren in de cityports van de Randstad weinig van elkaar verschillen, terwijl de bereikbaarheid van cityports juist wel sterk verschilt, met name tussen de greenports en de traditionele centra. Over het algemeen zijn door het uitgebreide spoor- en metronetwerk meer locaties in Frankfurt Rhein-Main en Tokio beter bereikbaar. Het is echter daar wel van groot belang om in het centrum van de stad gevestigd te zijn. Dit komt tot uitdrukking in hoge kantoorhuren. Ten slotte zijn er verschillen tussen de posities van de luchthavens in de stedelijke regio's die niet alleen op basis van ruimtelijke economische factoren kunnen worden verklaard.

#### *Luchthavens*

De luchthavens van de casestudies behoren tot de grootste ter wereld. Dit creëert banen op de luchthaven, het luchthaventerrein en in de regio. De luchthaven van Frankfurt is de grootste werknemersconcentratie van Duitsland, Schiphol is naast de haven van Rotterdam één van de twee Nederlandse mainports, terwijl Narita één van de drie hoofdcentra in de prefectuur Chiba ten oosten van Tokio is. De commercialisering zorgt voor een verschuiving van kernactiviteiten (passagiers en vrachtvervoer) naar niet-luchtvaartactiviteiten, zoals parkeren, winkelconcessies en vastgoedontwikkeling op de luchthaven.

Schiphol trekt verschillende soorten economische activiteiten aan en kan worden getypeerd als *monocentrische airport city*: de activiteiten clusteren zich op of rondom het centrum van Schiphol. Het succes van werkgelegenheid en spin-off van de luchthaven op korte termijn kan leiden tot problemen op lange termijn, met name congestie op de luchthaven zelf en in de regio, met kostenstijging tot gevolg.

Frankfurt ontwikkelt zich tot een *polycentrische airport city*. Dit is met name het gevolg van de ligging in het bos met strikte planning, een uitgebreid *Schnellbahn*-netwerk en stedelijke specialisatie door belastingconcurrentie in de regio. In Rhein-Main is eerder de bereikbaarheid, dan de nabijheid van de luchthaven van belang; vestiging vindt plaats in verschillende regionale centra die per auto en openbaar vervoer op korte reisafstand liggen. De grote weerstand in de regio tegen de luchthaven heeft geleid tot *trade-offs*, zoals uitbreiding van landingsbanen in ruil voor beperking van nachtvluchten en het bouwen van het AIRRAIL center boven de sporen om het bos van Frankfurt te sparen.

Haneda is met de rug gelegen naar Tokio en Kawasaki een *geïsoleerd luchthaveneiland* dat geen cityport ontwikkeling kent. Dit is opmerkelijk voor de grootste luchthaven van Azië. Het verafgelegen Narita is kleiner en internationaler dan Haneda en trekt distributeurs en hotels aan. De weerstand tegen de komst van de luchthaven, het weigeren boerengrond te verkopen aan de luchthaven en een gebrek aan planning hebben geleid tot een versnippering van luchthavengerelateerde bedrijvigheid in de regio: de zogenaamde *versnipperde aerotropolis*. In het algemeen is de keuze voor luchthavens op grote afstand (Narita) of in zee (onder meer Haneda, Chubu, Kansai) wel een lange termijn oplossing in termen van milieu en veiligheid,

maar vooralsnog blijkt het moeilijk om een economische ontwikkeling tot stand te brengen op basis van investeringen in infrastructuur.

#### *Actoren en actor-coalities*

In de institutionele analyse zijn eerst de actoren en actor-coalities in kaart gebracht. De belangrijkste betrokken partijen zijn nationale, regionale en lokale overheden; luchthavenautoriteiten en luchthavengebruikers, commerciële actoren als ontwikkelaars en beleggers, en adviesorganisaties die al dan niet aan belangen gebonden zijn. Bij de actorcoalities wordt een onderscheid gemaakt tussen groeicoalities en omgevingscoalities (gericht op milieu en leefbaarheid). Daarnaast worden actorcoalities in de luchthavengebiedsontwikkeling onderscheiden, waarin projectontwikkelaars en regionale coördinatieplatforms een rol spelen.

De kern van de groeicoalitie van Schiphol bestaat uit Schiphol, KLM, het Ministerie van Verkeer en Waterstaat (ondersteund door het kabinet), Economische Zaken en tot op zekere hoogte de gemeente Amsterdam. In Frankfurt vormen eveneens luchthaven (Fraport), luchtvaart (Lufthansa) en gemeente (Frankfurt) de groeicoalitie, maar hier worden ze ondersteund door economische belangenvertegenwoordigers zoals Kamers van Koophandel. Vanwege de politieke gevoeligheid en uitbreidingsproblemen in het verleden, wordt de groei van de luchthaven niet direct ondersteund door de ministeries in de deelstaat Hessen in de Duitse casus en de prefectuur Chiba in de Japanse casus. Bij de luchthavens van Tokio is het met name de ijzeren driehoek van de leidende Liberaal Democratische Partij, ambtenaren van het Ministerie van Transport en bouwondernemers die publieke werken als luchthavens tot verdere uitbreiding of verplaatsing aansturen. Regionale en lokale overheden en luchtvaartmaatschappijen spelen daarin een minder prominente rol.

#### *Sociaal-culturele instituties*

Sociaal-culturele instituties zijn medebepalend voor de diepere verankering van de spelregels in het regime. Het gaat daarbij met name om de wijze en intensiteit van wetgeven alsmede aard, uitvoering en handhaving van regels. De casestudies zijn voorbeelden van een corporatistische reguleringsstijl, redelijk actief interventiebeleid van overheden, het nastreven van consensus met belangengroepen, en formalisme in het omgaan met nieuwkomers op de markt. Binnen deze overeenkomsten bestaan er grote verschillen tussen Nederland, Duitsland en Japan. Actieve overheidsinterventie en planning wordt ingeperkt door de pragmatische invulling in Nederland, de federalistische structuur in Duitsland, en het besef dat de markt uiteindelijk efficiënter functioneert in Japan. Het corporatistische model van gedeelde verantwoordelijkheid van staat en markt verklaart deels het opzetten van overheidsbedrijven op de luchthaven in de cases: aanvankelijk een overheidstaak, maar uiteindelijk een marktgerichte bedrijfsvoering gecombineerd met publieke doelstellingen. Consensus en pragmatisme is deels een verklaring voor het bestaan en accepteren van (bouw)kartels in Nederland en Japan; in Duitsland is de handhavingstijl eerder legalistisch. De neiging in Japan en Nederland tot consensus te komen is sterk en heeft een lange traditie, en is mede de reden voor depolitisering van (luchthaven)planning.

#### *Financiële instituties*

De financiële instituties bestaan uit marktprikkels als belastingen en subsidies enerzijds, en directe strategische overheidsinvesteringen in onder meer publieke werken anderzijds. De fiscale decentralisatie is een belangrijke bepalende factor in bedrijfsbelastingconcurrentie in Frankfurt

Rhein-Main. Decennialang probeerden gemeenten het tevergeefs eens te worden over de verdeling van belastingen in de regio. De randgemeenten van Frankfurt trekken ondernemingen aan met lagere belastingen, terwijl Frankfurt voor de regionale voorzieningen betaalt. De belastingconcurrentie leidt echter ook tot een specialisatie en een eigen profiel voor gemeenten, ondersteund door het uitgebreide infrastructuurnetwerk in de regio.

Belastingen zijn in Nederland en Japan sterker gecentraliseerd. Dit betekent echter niet dat gemeenten niet met elkaar concurreren. In Japan concurreren regio's en steden op basis van publieke werken, met name bruggen, spoorwegen, luchthavens en gebouwen. Sinds lange tijd is het lokale niveau hiervoor afhankelijk van beslissingen op nationaal niveau en durven gemeenten niet de belastingtarieven aan te passen aan de noodzaak om lokale inkomsten te verhogen. Nederlandse gemeenten zijn in een vergelijkbaar systeem van fiscale centralisatie ook afhankelijk van het nationale niveau, maar deze afhankelijkheidsrelatie wordt beperkt door een stabiele inkomstenstroom en bestedingsvrijheid van geld uit het Gemeentefonds. Nederlandse gemeenten concurreren op basis van gronduitgifte voor bedrijventerreinen en kantorenlocaties. De regio Schiphol, waar gemeenten nauwgezet samenwerken om tot een win-win situatie te komen voor gemeenten, luchthaven en ondernemers, is hierop een uitzondering. Een institutionele innovatie als de Schiphol Area Development Company (SADC) is daarbij een kenmerkend voorbeeld.

#### *Economische instituties*

Naast de beschreven gronduitgifte zijn de investeringen, bouw en management van luchthavens als publieke werken belangrijke fases in het ontwikkelingsproces. Kostenoverschrijdingen en inkomstentegenvallers van grote infrastructuurwerken zijn recentelijk in onder meer Nederland onderwerp van discussie. De luchthavens van Schiphol en Frankfurt zijn echter rendabele projecten die zelf in belangrijke mate de noodzakelijke investeringen dragen. De luchthavens van Tokio zijn eveneens rendabel, zij het dat de kosten en opbrengstenstructuur van Haneda minder zichtbaar zijn. Haneda blijkt de melkkoe van het Japanse Ministerie van Land, Infrastructuur en Transport. Luchthavens in zee elders in Japan zijn wel klassieke voorbeelden van riskante megaprojecten. Kansai International Airport nabij Osaka is het duur betaalde leergeld voor andere luchthavens in zee, en behoort samen met andere waterfront projecten in Tokio tot de meest verliesgevendende publieke werken in Japan. De private aanpak van Chubu International Airport in de baai van Nagoya heeft tot kostenbeperkingen en opbrengstenstijgingen geleid, en heeft bovendien bijgedragen aan het doorbreken van de ijzeren driehoek van ambtenaren, politici en bouwondernemers.

In de bouwfase van de luchthavens leiden samenwerkingsconstructies tussen bouwondernemers en overheden regelmatig tot problemen. In Japan werkten ministeries met een lijst van officieel erkende bouwcartels die winsten afroemden voor de partijkas van de LDP, die op hun beurt pleitten voor nieuwe publieke werken voor de regio. In Nederland verdeelden bouwondernemers samen de opdrachten, net onder de maximale aanbestedingsprijs, en verdeelden de winsten in onder meer de Schipholclub. Daarvoor werden enkele ambtenaren omgekocht, maar politici waren hier niet bij betrokken. Zelfs nadat prijsafspraken, consortiumvorming en werkverdeling tussen bouwondernemers in EU-verband illegaal werden, bleken de instituties diep verankerd en moeilijk om te buigen naar transparantere praktijken, mede door een gebrek aan nieuwe richtlijnen. In Frankfurt Rhein-Main heerst eerder de tucht van de markt. Daar wordt een zaak onderzocht waarbij managers van beleggingsfondsen economisch riskante kantoorpanden in de binnenstad van Frankfurt aan de beleggingsportefeuille zouden hebben

toegevoegd in ruil voor smeergeld. Daarnaast ging ook het markante bouwbedrijf Holzmann ten onder aan kartelformatie, smeergeld en financiële schandalen.

Het managen van luchthavens en luchthaventerreinen staat onder veranderingsdruk door de toenemende commercialisering van de luchtvaartsector. Met name eigendomsstructuren veranderen, waarbij overheden aandelen vervreemden. In Japan heeft privatisering van luchthavens geleid tot meer opbrengsten, lagere kosten en meer concurrentie tussen de luchthavens. Aangezien Schiphol en Frankfurt al bedrijfseconomisch opereren, is daarin minder winst te verwachten. In Frankfurt zijn de vervreemde minderheidsaandelen nu voor een deel in handen van Lufthansa en private beleggers. De gedeeltelijke privatisering heeft de institutionele positie van de luchthaven in de regio echter niet substantieel veranderd. Een vervreemding van aandelen voor Schiphol zou vooral bijdragen aan het duidelijker afbakenen van posities en rollen van de actoren. De rolverdeling speelt evenzeer bij het aandeelhouderschap van Schiphol in SADC, de rol van Schiphol in het Bestuursforum, en de controlerende en ontwikkelende taak van het Ministerie van Verkeer en Waterstaat. Belangrijker is echter het doorbreken van de (regionale) monopolies van luchthavens in een interne Europese markt en het afleggen van rekenschap aan de omliggende stedelijke regio.

#### *Bestuurlijke instituties*

Overheidsbeleid voor het ontwikkelen van luchthavengebieden verschilt sterk tussen de cases, met name door verschillen in centralisatie, horizontale afstemming en participatie van niet-overheidspartijen. De institutionele analyse leidt tot de typering van de cases, waarbij het Duitse federalisme – zonder een strategisch nationaal luchthavenbeleid – kan worden gezien als *'decentraal wat kan en moet'*. De Nederlandse decentrale eenheidsstaat zet in op decentralisatie van regionale luchthavens, maar ziet Schiphol als een van haar mainports: *'decentraal wat kan, centraal wat moet.'* Centralisme in Japan is sterk ontwikkeld. De ministeries van Financiën en Land, Infrastructuur en Transport (MLIT) sturen de luchthavens aan, waarbij alleen luchthavenactiviteiten en geen luchthavengerelateerde activiteiten worden toegestaan. MLIT moet, los van de bouwaanbesteding, zelf de luchthaveninfrastructuur ontwerpen, hetgeen leidt tot inefficiëntie van het ontwikkelingsproces. De bestuurlijke instituties in de casus Tokio worden getypeerd als *'centraal wat mogelijk is.'* Succes van de decentrale en private aanpak met een Toyota-model (constante kostenreductie en kwaliteitscontrole) bij de nieuwe luchthaven van Chubu kan daar echter in de toekomst verandering in brengen.

Interdepartementale afstemmingsproblemen zijn eerder kenmerkend voor de meer gecentraliseerde cases van Randstad en Tokio dan voor Frankfurt Rhein-Main. Hierin is echter institutionele verandering zichtbaar. In Japan heeft het samenvoegen van ministeries geleid tot het vangen van twee vliegen in een klap: enerzijds wordt de blik van ambtenaren verruimd naar andere sectoren, anderzijds wordt de politieke macht van de inefficiënte infrastructuursector gebroken. In de regio Frankfurt Rhein-Main bevinden ministeries zich op het regionale niveau en zijn afstemmingsproblemen eveneens verminderd door infrastructuur, economie en ruimtelijke planning samen onder te brengen in één ministerie. In Nederland is gekozen voor een tijdelijke oplossing, waarbij interdepartementale projectgroepen zijn opgericht om de belangen op en rondom Schiphol af te wegen. Het Ministerie van Verkeer en Waterstaat werkt daarin samen met de Ministeries van VROM en Economische Zaken.

Naast de verticale en horizontale bestuurlijke instituties spelen bij *governance* niet-overheidspartijen een steeds belangrijkere rol in de coproductie van beleid. Dit heeft in het



geval van Schiphol in de Randstad geleid tot een lappendeken aan coördinatieplatforms met een beperkte jurisdictie. Nieuwe bestuurlijke platforms als Noordvleugel, Randstadbestuur en Deltametropool worden opgericht om bestaande bestuurlijke problemen en herverdeling van verantwoordelijkheden te ontwijken, nieuwe coalities te vormen en nieuwe perspectieven te zoeken. Het zorgt echter eveneens voor een onduidelijke taakverdeling en (de schijn van) belangenverstrengeling. Politisering, de scheiding van taken en bevoegdheden en de afstand tot marktpartijen zorgen ervoor dat governance in het geval van de luchthaven Frankfurt nog beperkt is. Politieke strijd tussen luchthaven en omgeving zorgt eveneens tot beperkte afstemming in Narita. De strijd om de uitbreiding van luchthavens zorgt er voor dat in Narita weinig tijd en aandacht is voor het benutten van de economische potenties van de luchthaven voor de regio. In Narita heeft dit geleid tot zowel vertraagde uitbreiding van de luchthaven, als een versnippering van economische activiteiten over de regio.

#### *Juridische instituties*

De juridische spelregels in de luchthavengebiedsontwikkeling laten zich onderscheiden naar internationaal, nationaal en regionaal/lokaal niveau. Op het internationale niveau zijn met name luchtvaartverdragen cruciaal. Deregulering en liberalisering hebben in de Europese gevallen een belangrijke invloed gehad op de vorming van hub- en spaastructuren, terwijl bilaterale contracten en beperkte toegang in Oost-Azië leiden tot inzet op meer capaciteit per vlucht in Japan. Dit andere type netwerk heeft een belangrijke invloed op de ontwikkeling en daarmee de bredere omgeving van de luchthavens.

Op nationaal niveau speelt de discussie over de geluids- en veiligheidscontouren van de luchthaven. In alle onderzochte cases vindt geluidsisolatie van woningen plaats en is er een beperking op bouwen in de buurt van de luchthaven. Het uitkopen en compenseren van bewoners vindt plaats in de Japanse en Duitse cases, maar is in Nederland nog een gevoelig onderwerp. Het berekenen van geluidsbelasting en schuiven met geluidsgrenzen leidt bij Schiphol tot een gebrek aan vertrouwen en het vermoeden van belangenverstrengeling tussen groeicoalitie en omgevingscoalitie. In Japan maken bewoners zich ondanks de matige woningisolatie minder druk om geluidsbelasting. Bovendien is naar een lange termijnoplossing toegewerkt met luchthavens in zee. Een opmerkelijke conclusie is echter dat prijzen van woningen en bedrijventerreinen in de belaste gebieden niet dalen en dat de vraag ook niet afneemt.

Het toestaan van bedrijven en kantoren in en om de luchthaven is een juridische institutie op regionaal en lokaal niveau. Strikte planning en een legalistische handhavingstijl, maar ook alternatieve ontwikkelingslocaties zorgen voor een beperkte verstedelijking op en rondom de luchthaven van Frankfurt. In het geval van Schiphol is er formeel en feitelijk een luchthavengebondenheidstoets voor nieuwe vestigingen, maar deze toets is in de praktijk moeilijk te handhaven door de internationalisatie van bedrijfsactiviteiten. Hierdoor concentreren zich verschillende kantoorfuncties in het centrum van Schiphol, zonder dat hier noodzaak voor is en die op termijn tot congestie van de luchthaven kunnen leiden. De pragmatische handhavingstijl en een actieve rol van Schiphol als projectontwikkelaar met publieke rugdekking door het actieve mainportbeleid van het Ministerie van Verkeer en Waterstaat, zorgen echter voor een spanningsveld met concurrerende projectontwikkelaars.

Na de molestatie van Chiba's onteigeningscommissie, is in Japan het onteigeningsinstrument niet langer meer hanteerbaar. Het geweld heeft een precedent geschapen en is naast hoge grondprijzen de belangrijkste reden voor het bouwen van luchthavens in zee. Het beschadigde

imago en de grote afstand tot de stad leiden tot beperkte verstedelijking rondom Narita's luchthaven. Bij Haneda staat het bevoegde ministerie alleen platformgerelateerde activiteiten toe, tot voor kort expliciet vermeld in de wet om de luchtvaart niet te storen. Daarin komt langzaam verandering met de kustontwikkeling van Rinku Towns bij de luchthavens in zee. Hoewel daarmee de ontwikkeling van de luchthaven als een cityport in de stedelijke regio in Japan dichterbij komt, blijkt de regionale en lokale overheid moeite te hebben met het vermarkten van deze dure locaties.

#### *Institutioneel leren*

De institutionele positie, institutionele aanpassing en actorcoalities kunnen als volgt geduid worden. Schiphol laat zich het beste omschrijven als een *semi-betwiste stille groeicoalitie* met een focus op korte termijnsuccessen. Er is een toenemend regionaal wantrouwen door gedeeltelijke publieke steun in de groeicoalitie en depolitisering van belangentegenstellingen. Frankfurt wordt gezien als een *betwiste open groeicoalitie*, gedreven door economische belangen en politiek bestreden door actieve leefbaarheidgroeperingen, met trade-off oplossingen voor de middellange termijn. Zowel Schiphol als Frankfurt hebben zich door de ligging van de luchthaven in het midden van de regionale economie ontwikkeld tot cityport. Luchthavencoalities in Japan kunnen het beste worden omschreven als conflictvermijdende groeicoalities, met lange termijn oplossingen voor luchthavens in zee, aandacht voor economische belangen en infrastructuurgeleide stedelijke ontwikkeling.

De verschillende aanpak van de luchthaven als cityport in de stedelijke regio laat een variëteit aan leerervaringen binnen en tussen de casestudies zien. Zowel theorie als praktijk wijzen echter uit dat het transplanteren van institutionele oplossingen van de ene naar de andere regio door gebrek aan draagvlak of inpassing veelal niet tot de gewenste resultaten leidt. Het biedt echter wel een spiegel voor de eigen aanpak en een perspectief aan mogelijkheden. Daarvoor is in de conclusies een lijst met aanbevolen leerervaringen opgenomen.

De specialisatie van steden in Frankfurt Rhein-Main heeft een sterke versnippering van ontwikkelingslocaties over de regio als keerzijde. Aangezien belastingsconcurrentie en stedelijke specialisatie niet los van elkaar gezien kunnen worden, is interregionaal institutioneel leren hier nauwelijks mogelijk. In het algemeen kan wel worden gesteld dat vergelijkbare financiële prikkels gemeenten actiever maken en lokale specialisatie bevorderen, maar de samenwerking in de regio sterk problematiseren. Juist de samenwerking tussen gemeenten rondom Schiphol in de Randstad, heeft geleid tot afgestemde gebiedsontwikkeling. Hier kunnen de Duitse en Japanse casestudies leren van de Nederlandse praktijk. Het zou daarin verder raadzaam zijn om te kijken naar Angelsaksische modellen, waarin de stakeholders van het stadium van grondeigendom tot aan parkmanagement en beleggen bij het gebiedsontwikkelingsproces betrokken zijn.

De afgestemde gebiedsontwikkeling rondom Schiphol met onder meer een rol voor SADC en Schiphol Group is de basis geweest voor de exploitatie van de mainport, maar deze aanvankelijke institutionele innovaties roepen steeds meer vragen op over rollen en belangen. Dergelijke hybride organisaties kunnen aanvankelijk succesvol zijn, maar op langere termijn leiden tot toenemend wantrouwen en ten minste de schijn opwekken van publieke en private belangenverstrengeling. Een terughoudende en faciliterende rol van de overheid, zoals in Frankfurt Rhein-Main, is hierbij raadzaam. Op die wijze kan het politieke conflict tot uiting komen, dat uiteindelijk tot *trade-offs* kan leiden.

Tabel S1 Overzicht institutionele arrangementen en groeicoalities in de casestudies

Instituties	Schiphol/Randstad	Frankfurt/Rhein-Main	Tokio/Haneda en Narita
Sociaal-cultureel	Consensus en pragmatisme beperken interventionisme en planningambitie	Federalisme en corporatisme beperken interventionisme en planningambitie	Japans corporatisme met conflictvermijdend consensualisme en pragmatisme beperken interventionisme en planning
	Depolitisering van planning	Politisering van planning	Depolitisering van (economische) planning
Financieel	Gecentraliseerd maar relatief onafhankelijke gemeenten	Decentraal met concurrentie tussen gemeenten	Gecentraliseerd met afhankelijk gedrag gemeenten
Economisch	Actieve rol gemeenten in aanbod bedrijventerreinen	Actieve rol gemeenten in belastingconcurrentie	Actieve rol overheden bij realiseren publieke werken
	Kartels, prijsafspraken, rol old boys netwerk vermindert	Tucht van de markt; kartels en illegale afspraken beperkt door legalistische handhaving	Gesloten netwerken, prijsafspraken, moeizaam te openen
Bestuurlijk	Decentraal wat kan, centraal wat moet	Decentraal wat kan en moet	Centraal wat kan
	Sectorale verkokering door eigen aanwas ministeries, interdepartementale afstemming	Economie, infrastructuur en planning in één ministerie afgestemd	Ministeries van Infrastructuur en Land vergroot afstemming en breekt politieke macht
	Luchthaven actief betrokken, onduidelijke rolverdeling en beperkte jurisdictie, bestuurlijke lappendeken voor overleg en afstemming	Luchthaven wordt actiever, maar op afstand	Luchthaven door centrale sturing niet actief in de regio
	Luchthaven publieke monopolie	Privatisering minderheidsaandeel luchthaven	Centrale sturing luchthaven of privatisering waar mogelijk
Juridisch	Late aanpassing aanbestedingsprocedure, matig zelfcorrigerend mechanisme	Duidelijke aanbestedingsregels en handhaving daarvan	Late aanbestedingswetgeving, zwak zelfcorrigerend mechanisme
Coalitie	Semi-betwiste stille groeicoalitie gericht op korte termijn	Betwiste open groeicoalitie gericht op middellange termijn	Conflictvermijdende groeicoalitie gericht op lange termijn

Een striktere handhaving van planning en de ontwikkeling van een regionaal openbaar vervoersnetwerk zijn belangrijke succesfactoren in de ontwikkeling van een polycentrische airport city in Frankfurt. Ook in Japan vinden strategische en grootschalige investeringen plaats in infrastructuur op lange termijn. Hier kan de snel verstedelijkende Schipholregio van leren, dat bij politieke beslissingen eerder 'penny wise, pound foolish' leek of onzekerheden uit de weg ging. Hoewel in ruimtelijk economisch opzicht de ontwikkeling van de luchthaven als een cityport in het hart van polycentrische stedelijke regio's een succes kan worden genoemd,

getuigt de keuze voor een verafgelegen luchthaven ter land of in zee in Japan van moed en lange termijn visie. Deze keuze laat echter ook economische risico's zien. De situatie van Schiphol in de Randstad is eerder een korte termijnoplossing. Er wordt aanbevolen te kiezen voor ofwel een middellange termijn oplossing met bescherming van de locatie en boter bij de vis (zoals in Frankfurt Rhein-Main), of voor lange termijn op groei afstand, zoals een luchthaveneiland. Gezien de economische en technische problemen in Japan is de belangrijkste leerervaring hiervan dat dan eerder gedacht moet worden aan een locatie, niet te diep en niet te ver, maar dichtbij de stedelijke regio. In dat geval zijn spronginvesteringen van de overheid noodzakelijk, maar kan de levensvatbaarheid worden afgemeten aan de investeringen en belangen van private gebiedsontwikkelaars.

De actuele discussie over de privatisering van Schiphol kan tegen de achtergrond van privatisering in de andere cases worden gezet. De privatisering van Frankfurt is goed vergelijkbaar. Ondanks politieke strijd om de luchthavenuitbreiding, wordt om de gedeeltelijke privatisering van Fraport minder strijd geleverd. Het lijkt de regionale economische en institutionele positie niet sterk aangetast te hebben, en de betrokkenheid van de belangrijkste luchtvaartmaatschappij eerder versterkt te hebben. In Japan heeft privatisering geleid tot efficiëntere instituties, op bedrijfseconomisch gebied en mogelijk ook wat betreft de inbedding in de regio. Door privatisering konden monopolies worden doorbroken, en nam de concurrentie tussen luchthavens toe. Dit leidde tot lagere prijzen en betere diensten van de luchthaven. Een dergelijk *level-playing field* van luchthavens is binnen de EU door verschillen in nationale beleidsstijl moeilijker te realiseren.

De Japanse en Nederlandse bouwwereld kan ten slotte leren van de Duitse aanbestedingsmarkt. Gezien de neiging van deze sector tot prijsafspraken en opdrachtenverdeling te komen, is een legalistische handhavingstijl zoals aangetroffen in Duitsland effectiever dan het langzame zelfreinigende proces zoals in Japan en Nederland aangetroffen. Duitsland kende ook veel kartels en prijsafspraken, maar interpreteerde na de Tweede Wereldoorlog een vergelijkbare nieuwe wetgeving als in Japan strikter. Hoewel prijsafspraken en marktverdeling minder lijken voor te komen in Frankfurt Rhein-Main, tonen recente smeergeldaffaires aan dat de tucht van de markt tot andersoortige problemen kan leiden.

Cruciaal is uiteindelijk het leervermogen binnen de stedelijke regio zelf. Daarin scoren de onderzochte casestudies matig; met name het gebrek aan regionale samenwerking in Rhein-Main, de roldifferentiatie en jurisdictie in de Randstad, en het openen van de markt in Japan. Ondanks het langzame interne leerproces kunnen onverwachte gebeurtenissen op het juiste politieke moment waarin verschillende oplossingsrichtingen samen komen wel degelijk tot institutionele verandering leiden. Ondanks een continu proces van beleidsinterventie zijn strategische leerervaringen door de consensuscultuur moeilijk door te voeren in de casus Schiphol in de Randstad. Hier kan een gezamenlijke focus op schaalvergroting en regionale integratie uitkomst bieden. Bij luchthavenplanning in Japan zijn instituties duidelijke diep geworteld, maar indien nodig zijn veranderingen van hogerhand door te voeren. In de casus Frankfurt Rhein-Main is in de federale context het regionale niveau gedwongen zich aan te passen en op dit niveau te zoeken naar nieuwe richtingen, hierbij wel geprikkeld door concurrentie met andere stedelijke regio's in Duitsland en daarbuiten. Het positieve van de aangetroffen inertie is dat een opeenstapeling van institutionele belemmeringen op zichzelf ook weer nieuwe institutionele en ruimtelijke economische mogelijkheden creëert.

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## Appendix I: List of interviews

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- Benes, N. – Governor, American Chamber of Commerce Japan, Tokyo, 12.11.2004
- Bergh, R. – CEO, Schiphol Area Development Company, Schiphol, 2.06.2005
- Bijvoet, Mrs. L. – Projectmanager, Schiphol Area Development Company, Schiphol, 6.06.2005
- Bleeker, Th. – Transport Attaché, Royal Netherlands Embassy, Tokyo, 16.08.2004
- Böhm, B. – Projectmanager, Deutsche Bahn Station & Service, Frankfurt, 16.12.2003
- Boltze, M. – Manager ZIV, Professor Technical University Darmstadt, Darmstadt, 4.12.2003
- Bothe, R. and S. Kornmann – Consultants, Albert Speer + Partner, Frankfurt, 12.11.2003
- Buchholz, Mr. – Head project development Frankfurt city planning office, Frankfurt, 09.12.2003
- Burghouwt, G. – Researcher, SEO Economic Research, Amsterdam, 7.06.2005
- Bussink, F.L. – Director Knowledge and Innovation, Ministry of Transport, Public Works and Water Management, Den Haag, 30.05.2005
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- Freund, B. – Professor, Humboldt University zu Berlin, Kronberg, 06.12.2003
- Groot H. de and Mrs. B. Lambrechts – Real estate urban planner and coordinator strategy and policy, Vereniging Bloemenvailing [flower auction] Aalsmeer, Aalsmeer, 27.06.2005
- Harting, Mrs. M. – Journalist, Frankfurter Allgemeine Zeitung, Frankfurt, 25.11.2003
- Jacobs, G. – Projectmanager Mainport Schiphol, DG Transport and Aviation, Ministry of Transport, Public Works and Water Management, Den Haag, 9.06.2005
- Joosten, H. – Manager, Bouwfonds International, Hoevelaken, 01.12.2003
- Kania, P. – Wirtschaftsförderung Frankfurt, 11.12.2003
- Kawaguchi, H. – Chiba Prefecture, Chiba, 03.12.2004
- Kerckhoff, J. – Director Strategy and Schiphol projects, KLM, Amstelveen, 21.06.2005
- Klärner, E. – Technical manager, AIRRAIL center, Frankfurt, 10.12.2003
- Kranenburg, W. – Senior advisor, Schiphol Group Airport Development, Schiphol, 25.05.2005
- Kruijk, de P. – Account manager airport business, Municipality of Haarlemmermeer, Hoofddorp, 22.06.2005
- Lunkenheimer, J. and G. Stanek – General manager and manager planning, Rhein-Main Verkehrsverbund (RMV), Hofheim am Taunus, 12.12.2003
- Machimura, T. – Professor of Sociology, Graduate School of Social Sciences, Hitotsubashi University, Tokyo, 03.12.2004
- Mast, A. and M. Schaafsma – Director and senior urban planner, Schiphol Real Estate, Schiphol, 24.05.2005
- Meijdam, H. – VROM-Raad chair and former Deputy of Provincie Noord-Holland, Den Haag, 24.06.2005

Messener, Mr. and Mr. Sachleber – Technical manager and project developer, Bouwfonds Rhein-Main, Frankfurt, 14.11.2003

Migchelbrink, B. – Deputy director, NIB Capital, Den Haag, 30.05.2005

Müller, W. – Head Department of infrastructure, state planning and regional development, Hessen Ministry of Economic Affairs, Transportation and State Development, Wiesbaden, 18.11.2003

Namekata, Mr. – Senior manager of Community and Environment Affairs Department, Narita International Airport Corporation (NAA), Narita, 26.10.2004

Noguchi, Mr. – Director of design and construction, Penta-Ocean Co., Ltd., Tokyo, 15.11.2004

Obuchi, H. and H. Kuniwake – Director PR office and Manager corporate planning office, Japan Airport Terminal Co., Ltd at Haneda, Tokyo, 05.11.2004

Oki, Mr. – Director, Development Bank of Japan, Tokyo, 22.10.2004

Ona, Mr. – Senior manager, Japan Project Industry Council (JAPIC), Tokyo, 29.10.2004

Peters, R. – Real estate developer, ProLogis Europe, 8.06.2005

Poot, P. – Director, Chipshol Holding B.V., Schiphol-Rijk, 27.05.2005

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Rautenstrauch, L. – Head of Planungsverband Ballungsraum Frankfurt Rhein-Main, 26.11.2003

Regenboog, D. – Director, Latei Projectontwikkeling, Amersfoort, 13.06.2005

Rohde, H. – Chair, Chamber of Commerce IHK Hanau, Hanau, 19.11.2003

Rossbrey, Mrs. P. – Vice-president, Fraport AG Real Estate and Facility Management, Frankfurt, 17.12.2003

Sato, N. – FDI Director, Bureau of Industrial and Labor Affairs, Tokyo Metropolitan Government, Tokyo, 29.11.2004

Schien, Mr. – Head of planning department, Municipality of Neu-Isenburg, Neu-Isenburg, 05.12.2003

Scholl, B. – Professor, Technical University Karlsruhe, Karlsruhe, 10.11.2003

Schultheiss, J. – Journalist, Frankfurter Rundschau, Frankfurt, 26.11.2003

Smilde, C. – Senior consultant, DHV, former manager Schiphol Real Estate, Amersfoort, 26.05.2005

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Tanizumi, Mrs. A. and H. Kumada – Senior manager corporate communications and marketing representative, ProLogis Japan, Tokyo, 03.12.2004

Tordoir, P.P. – Professor and director policy advise, Chamber of Commerce Amsterdam, Amsterdam, 22.06.2005

Trommels, Mr. – Former CEO, Schiphol Area Development Company, Amsterdam, 15 august 2006

Ueda, D. and T. Tsuchiya – Manager Corporate Planning Group and General manager Corporate Planning Division, Central Japan International Airport, Nagoya, 08.11.2004

Veldman, B. – Manager, Stratagem Groep, Den Haag, 3.06.2005

Vink, B. – Senior program manager Randstad, Ministry of Housing, Urban Planning and Environment, Den Haag, 14.06.2005

Vonk, H. – Secretary, Bestuursforum Schiphol, Provincie Noord-Holland, Haarlem, 1.06.2005

Voorn, S. van – Department of Economic Affairs, Urban Development and Schiphol, Municipality of Aalsmeer, 23.05.2005

Wade, F. – Senior vice-president, AMB Property Europe, Amsterdam, 13.06.2005

Weijts, M. – Senior urban planner, City of Amsterdam, Amsterdam, 10.06.2005

Weiss, H.J. – Manager, Wirtschaftstiniative Metropolitana Frankfurt Rhein-Main, Frankfurt, 08.12.2003

Yamada, Mr. and Mr. Kawaguchi – Urban Planning Department, City of Narita, Narita, 16.11.2004

Yamauchi, H. – Professor of Aviation Economics, Graduate School of Commerce and Management, Hitotsubashi University, Tokyo, 19.10.2004





## Appendix II: Node values of the Cityports

The node values of the cityports express the accessibility of the place. It is the sum of the number of connections by modes of transportation plus the sum of the number of directions. The modes of transportation are airplanes, high-speed trains, intercity trains, regional and local trains, subways, and car access to a nearby highway. Because of the distances between the cityports, buses and bicycles are not included in the calculations.

Table A.II below shows the conversion of the different names for the mode of transportation in the different case studies. Furthermore, column 5 shows the points for connections. The highest value is given to direct airplane access and high-speed train stations, while the lowest scores are given to underground stations. Because of the wider impact of the airport and high-speed train stations in the city-region, these modes of transportation are furthermore differentiated in travelling time to the station.

*Table A.II* Modes of transportation: conversion and points

Mode	Randstad	Frankfurt Rhein-Main	Tokyo Metropolitan Area	Connection Points	Directions Points
Airport	Schiphol	Frankfurt	Haneda Narita	200 at airport 150 within 30 mins. 100 within 60 mins. 50 within 90 mins. 25 over 90 mins.	1
High-speed trains HSL		ICE	Shinkansen	150 at sta. 100 near sta.	15
Intercity trains	Eurocity (EC) Intercity (IC)	Eurocity (EC) Intercity (IC)		50	10
Regional-local trains	Sneltrain Sprinter	Regional Express (RE) Direkt (D) Regionalbahn (R)	Rapid express Rapid Local	25	5
Light rail and underground	Sneltram Light rail Metro	S-bahn (S) U-Bahn (U)	Underground	5	1
Highway	Snelweg	Bundesbahn	Expressway	50	10

An example:

*Rotterdam centre connections*

Access to the airport is within 60 minutes = 100 points

No ICE connection yet

IC and EC trains = 50 points

Regional and local trains = 25 points

Subway	= 5 points
No direct highway access near centre	
<i>Rotterdam centre directions</i>	
Schiphol airport with 100 destinations	= 100 points
No ICE direction yet	
Intercity trains in 7 different directions	= 70 points
Local trains in 5 different directions	= 25 points
Subway in 4 different directions	= 4 points
No direct highway access near centre	
<i>Total node value of Rotterdam centre</i>	<i>= 379 points</i>

Sources: <http://www.ns.nl>, <http://www.ov9292.nl>, <http://www.michelin.com>, <http://www.bahn.de>, <http://www.rmv.de>, <http://www.adac.de>, <http://www.jr.co.jp>, <http://www.jorudan.co.jp>, Tokyo Metropolitan Atlas, Stadtplan Frankfurt Rhein-Main

Table A.II.A Randstad

Randstad-Cityport	Connections					Directions					Total Value		
	Airport	ICE	IC/EC	D/RE/R	S/U	Highway	Airport	ICE	IC/EC	D/RE/R	S/U	Highway	Connections + Directions
Rotterdam, centre	100		50	25	5		100		70	25	4		379
Den Haag, Pr.Clausplein	150					50	100					40	340
Den Haag, centre	100		50	25	5	50	100		70	20	1	10	431
Amsterdam, centre	150		50	25	5		100		80	40	3		453
Utrecht, centre	100		50	25	5		100		100	45	2		427
Utrecht,	100					50	100					50	300
Rijnsweerd/Uithof													
Amsterdam,	150		50	25	5	50	100		60	15	2	30	487
ArenA/Duivendrecht													
Amsterdam, Sloterdijk/Harbour	150		50	25	5	50	100		20	15	1	30	446
Schiphol, centre	200		50	25		50	100		60	20		30	535
Hoofddorp, Beukenhorst	150			25		50	100			15		30	370
Zoetermeer, centre	100			25		50	100			15		20	310
Den Haag, Binckhorst	100			25			100			10			235
Den Haag, south-west	100					50	100					20	270
Amsterdam, Zuidas	150		50	25	5	50	100		40	10	4	40	474
Amersfoort, centre	100		50	25		50	100		60	20		40	445
Leiden, centre/hospital	150		50	25		50	100		40	25		20	460
Aalsmeer, flower auction	150						100						250
Rotterdam, Leuvehaven	100				5		100				2		207
Rotterdam, Europoort	50				5	50	100				2	30	237
Westland/Honselersdijk	50						100						150
Horticulture													
Delft, Campus university	50			25		50	100			10		20	255
Nieuwegein	50				5	50	100				1	40	246
Capelle/Alexandrium	50		50	25	5	50	100		20	10	1	30	341

Table A.II.B Frankfurt Rhein-Main

Rhein-Main-Cityport	Connections				Directions				Total Value				
	Airport	ICE	IC/EC	D/RE/R S/U	Highway	Airport	ICE	IC/EC	D/RE/R S/U	Highway	Connections +Directions		
Frankfurt City	150	100	50	25	3	50	116	210	90	60	20	30	904
Airport/Niederrad/Kelsterbach	200	100	50	25	3	50	116	150	30	10	4	40	778
Frankfurt City-West	150	50			3	50	116				8	30	407
Frankfurt City-Ost	150			25	3	50	116			10	17	10	381
Frankfurt Höchst	150			25	3		116			30	4		328
Ruesselsheim	150			25	3	50	116			10	4	30	388
Frankfurt Süd	150	100		25	3	50	116	30		25	9	20	478
Offenbach	150			25	3	50	116			25	8	20	397
Kaiserlei Offenbach	150		50		3	50	116				8	40	417
Neu-Isenburg	150			25	3	50	116			10	4	20	378
Dreieich	150			25			116			10	4		305
Langen (Hessen)	150			25	3	50	116			10	4	20	378
Dietzenbach	100				3		116				2		221
Wiesbaden, centre	150	100	50	25	3	50	116	30	10	25	3	40	602
Eschborn	150				3	50	116				4	40	363
Hofheim am Taunus	150			25	3	50	116			10	2	20	376
Swalbach -Sulzbach	150			25	3	50	116			10	2	20	376
Frankfurt Riedberg	150				3	50	116				3	40	362
Darmstadt,centre	150	100		25	3	50	116	60	60	30	2	40	636
Dieburg	100			25			116			15			256
Griesheim	50					50	116					20	236
Bad Homburg	150			25	3	50	116			5	1	30	380
Hanau	100	100	50	25	3	50	116	60		45	2	30	581
Bad Vilbel	50			25	3	50	116			5	2	10	261
Karben	100						116						216
Mainz Mediaviertel	150	100	50	25	3	50	116	60	80		2	40	676
Aschaffenburg, centre	100	100	50	25		50	116	30	30			20	521

Table A.II.C Tokyo Metropolitan Area

Tokyo-Cityport	Connections			Directions					Total Value Connections +Directions						
	Narita	Haneda	ICE	IC/EC	D/RE/R S/U	Highway	Haneda	Narita		ICE	IC/EC	D/RE/R S/U	Highway		
Tokyo/Maranouchi	100	150	100	50	25	5	50	44	67	90	40	40	2	10	773
Kojimachi	50	100	100	50	25	5	50	44	67	90	20	10	6	40	657
Kanda-Otemachi	50	150	100	50	25	5	50	44	67	90	10	20	6	20	687
Nihonbashi	50	100	50	50	25	5	50	44	67	90	20	20	8	20	529
Ginza	50	150	50	50	25	5	50	44	67	90	10	20	10	20	536
Shimbashi/ Toronomon	50	150	50	50	25	5	50	44	67	90	10	7	7	20	568
Azabu/ Roppongi Hills	50	150				5	50	44	67				6	30	402
Mid-town/Akasaka	50	100				5	50	44	67				4	20	340
Shinagawa Intercity	50	150	100	50	25	5	50	44	67	20	30	20	2		563
Shinjuku	50	100		50	25	5	50	44	67		70	50	9	10	530
Ushigome	50	100				5		44	67				2		268
Shibuya	50	100			25	5	50	44	67				25	5	391
Ebisu	50	100			25	5		44	67				30	2	323
Yotsuya	50	100		50	25	5		44	67		20	10	4		375
Ota-Kamata	50	200			25	5		44	67				35		421
Meguro	50	150			25	5	50	44	67				10	5	426
Osaki	50	150	50		25	5		44	67	20			35	20	441
Ikebukuro	50	100		50	25	5	50	44	67				20	8	439
Ueno	100	150	100	50	25	5	50	44	67	10	40	30	4	20	695
Akihabara	50	150	50	50	25	5	50	44	67	10	20	20	2	10	483
Asakusa	50	100	50			5	50	44	67	10			3	20	399
Iidabashi/ Tokyo Dome	50	100			25	5	50	44	67				10	6	377
Hongo	50	100				5		44	67				6		272
Hachioji	25	50		50	25			44	67		50	25			336
Tachikawa	25	50		50	25	5		44	67		20	15	2		303

(Table A.II.C. continued)

Tokyo-Cityport	Connections			Directions					Total Value Connections +Directions				
	Narita	Haneda	ICE	IC/EC	D/RE/R S/U	Highway	Haneda	Narita		ICE	IC/EC	D/RE/R S/U	Highway
Funabashi	100	100		50	25	50	44	67		20	25	20	501
Makuhari	100	100		50	25	50	44	67		20	10	20	486
Narita	200	50		50	25	50	44	67		20	20	20	546
Chiba	100	100		50	25	50	44	67		30	40	20	526
Urawa	50	100	50	50	25	50	44	67	40	40	20	20	556
Omiya	25	50	100	50	25	50	44	67	40	70	35	10	566
Yokohama- MinatoMirai	50	100		50	25	50	44	67		20	10	20	443
Kawasaki, centre	25	150			25	50	44	67			2	20	383
Tsukuba	100	25			50	50	44	67		20		20	376
Urayasu Disneyland	25	50			25	50	44	67		10	1	20	297
Waterfront Teleport	25	150			25	50	44	67		10	1	30	407

## Appendix III: Glossary

3-ward	Tokyo Chuo, Chiyoda and Minato wards
5-ward	Tokyo Chuo, Chiyoda, Minato, Shinjuku and Shibuya wards
AAA	Amsterdam Airport Area
ABC	Amenity Business Core
ACCJ	American Chamber of Commerce in Japan
ACI	Airport Council International
ACI	Airport Council International
ACRE	Airport City Real Estate Fund
AF	Air France
<i>amakudari</i>	retired bureaucrats employed at large corporations
AMS	Amsterdam Airport Schiphol
ANA	All Nippon Airways
AS+P	Albert Speer + Partner, architecture and consultants
BCR	Building Coverage Ratio
BFS	[Bestuursforum Schiphol] Regional coordination of Noord-Holland, Amsterdam, Haarlemmermeer, Schiphol Group
BMVBW	[Bundesministerium für Verkehr, Bau- und Wohnungswesen] German federal ministry for Transport, Construction and Housing
BRS	[Bestuurlijke Regiegroep Schiphol] Regional coordination Schiphol in economic and urban planning issues, subdivided in a smaller and larger organ.
BRS-groot	[Bestuurlijke Regiegroep Schiphol Groot] BRS-klein plus the provinces Zuid-Holland and Utrecht and 30 municipalities in the wider Schiphol region
BRS-klein	[Bestuurlijke Regiegroep Schiphol Klein] small BRS with province of Noord-Holland, Amsterdam and Haarlemmermeer as members
BSL	Building Standard Law
CBD	Central Business District
CJIAC	Central Japan International Airport
CPA	City Planning Area
CPB	[Centraal Planbureau] Netherlands Bureau of Economic Policy Analysis
CROS	[Commissie Regionaal Overleg regio Schiphol] Consultation commission on environmental issues in the Schiphol region
<i>dango</i>	Fraudulent manipulation of the construction industry bidding process
DBJ	Development Bank of Japan
EU	European Union
EZ	[Economische Zaken] Netherlands Ministry of Economic Affairs
FAR	Floor Area Ratio
FAZ	Frankfurter Allgemeine Zeitung, newspaper
FDI	Foreign Direct Investment

FNP	Frankfurter Neue Presse, newspaper
FR	Frankfurter Rundschau, newspaper
FRA	Frankfurt International Airport
GDP	Gross Domestic Product
GRP	Gross Regional Product
IHK	[Industrie und Handelskammer] Chamber of Commerce in Germany
JACE	Japan Association of Corporate Executives
JAL	Japan Airlines
JAT	Japan Airport Terminal Haneda Airport
JAPIC	Japan Project Industry Council
JAS	Japan Air System
JR	Japan Railways
JREI	Japan Real Estate Institute
Ke	[Kosten Eenheden] Mr. Kosten's units for calculating aviation noise
<i>keiretsu</i>	Company group with interrelated board of supervisors and cross-shareholders
<i>kiyoiseiji</i>	Clean politics; transparency in policy making and implementation
KIX	Kansai International Airport
KLM	Royal Dutch Airlines
LCC	Low Cost Carrier
LDP	Liberal Democratic Party
LIB	[Luchthaven Indelingsbesluit] Airport planning directive Netherlands
LVB	[Luchthaven Verkeersbesluit] Airport aviation directive Netherlands
MIT	Massachusetts Institute of Technology
MITI	Ministry of International Trade and Industry
MLIT	Ministry of Land, Infrastructure and Transport
MOF	Ministry of Finance
MPTP	Ministry of Public Management, Home Affairs, Posts, Telecommunications
NAA	Narita Airport Authority
NBD	New Business District
NIB Capital	Successor of the former Dutch National Investment Bank
NPC	National Policy Company
PFI	Private Finance Initiative
PKB	[Planologische Kernbeslissing] Legally binding national spatial planning decision
PPP	Public Private Partnership
PVFRM	[Planungsverband Frankfurt Rhein-Main] Regional planning association (2001-)
R&D	Research and Development
Raad V&W	Advisory council of the Ministry of Transport
REA	[Raad Economische Adviseurs] Interdepartmental Economic Advisory Council
RICE	Research Institute on Construction and Economy
ROA	[Regionaal Orgaan Amsterdam] Regional Coordination platform of municipalities surrounding Amsterdam
SADC	Schiphol Area Development Company



<i>Shimbun</i>	Newspaper in Japan
SLP	Schiphol Logistics Park
SPE	Special Purpose Enterprise
SRE	Schiphol Real Estate
TCCI	Tokyo Chamber of Commerce and Industry
TK	[Tweede Kamer] Dutch lower house of parliament
TMA	Tokyo Metropolitan Area
TMG	Tokyo Metropolitan Government
TNLI	[Toekomstige Nederlandse Luchthaven Infrastructuur] Netherlands Future Airport Infrastructure Committee
UVF	[Umlandverband Frankfurt] Regional planning association (1975-2001)
V&W	[Verkeer & Waterstaat] Netherlands Ministry of Transport, Public Works and Water Management
VROM	[Volkshuisvesting, Ruimtelijke Ordening & Milieubeheer] Netherlands Ministry of Housing, Spatial Planning and the Environment
VROM-Raad	Advisory council of the Ministry of VROM
<i>yakuza</i>	Gangster in Japan
<i>zaibatsu</i>	Pre-war company groups related to a holding company



## Curriculum Vitae

Michel van Wijk was born on May 7, 1977 in Huizen, the Netherlands. In 1995 he passed the Athenaeum exams at the O.S.G. Huizermaat in Huizen. From 1995 to 2001 he studied and graduated as M.A. in Urban and Regional Planning at the University of Amsterdam. This includes an E.U. INTERREG internship at Kolpron Consultants in Rotterdam. Furthermore, he was an exchange student at the Technical University of Berlin in 1999. Extracurricular activities included organising international student trips, conferences and excursions. From 1999 to 2001 Michel van Wijk was enrolled in the master's program of International Affairs in the University of Amsterdam, which helped to develop his interest in academic research. This led to an appointment as Ph.D. student in Urban and Regional Planning at Utrecht University (2001-2006). The first years of research were spent at Ecorys Nederland in Rotterdam, and for three months at the J.W. Goethe University in Frankfurt am Main (2003). From 2004 to 2006 he was a research student at Hitotsubashi University in Tokyo, including a five-months Japanese language course.



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