SUMMARY

Obsolescence of office buildings: problem or challenge?

Introduction

The time dimension in the office market is usually divided into medium- (conjunctural) and long-term (structural) development, most attention being devoted to conjunctural development. The key questions in that regard are: Which phase of the cycle of the office market are we in? Which market trends will emerge in the near future? and How will those trends affect the property sector, both at the level of the region and in the strategy of individual firms?

Though scarcer than research on cyclical changes, some studies consider the long-range development of the office market. As a result of economic growth and change in the structure of the economy as well as the presence of a large sector of office firms and institutions, the stock of office space had been increasing and the market for rental properties had been growing for decades. This has promoted expansion in the sectors of office development, investment, and property management, which have thereby become more complex. The same is true for the associated office markets. There is not just one office market but several. At the very least, we may distinguish the user market (mainly dealing with housing services of office buildings for firms and institutions), the building or development market (in which office buildings are constructed as commissioned by their intended users, by property developers, or by other sponsors), and the investment market (where investments are made in office buildings in order to generate a yield through rental income and increasing value). These are not national markets but regional ones that are segmented according to different characteristics.

In the complex interplay of segmented markets and short- and long-term developments, another drama is taking place at an intermediate time scale: office buildings are becoming obsolete before their time. While their technical lifespan is long, their economic lifespan is not. The economic lifespan is the period during which buildings meet the qualitative needs of the office firms and produce income for the owners. Since the mid-1980s, the problems arising from premature obsolescence, diminishing returns, higher costs, and increasing vacancies have drawn attention in the Netherlands, primarily among actors in the real estate sector and officials in government agencies. That greater awareness laid the foundation for a series of studies directly or indirectly concerned with premature obsolescence. This book draws upon parts of those studies, integrating them as much as possible by posing a new research question.

The following sections summarize the main findings of this study. The last section considers whether premature obsolescence - perceived as a problem in the eighties and the early nineties, the period covered by the research - is still an issue. One question - couched in the book's subtitle - is highlighted in this summary: Was (and is) the obsolescence of office buildings a serious and almost incurable problem, or was (and is) it a difficult but solvable challenge to the property industry?

The research
The studies comprising this book have a common theme: the obsolescence of office buildings, the backgrounds and the effects of that phenomenon, and the ways in which the owners are addressing the problems related to obsolescence. The individual studies have been linked together by the following research problematic:

With which forms of obsolescence are the owners of office buildings in the urban areas of Amsterdam and Rotterdam confronted? What are the backgrounds of this obsolescence? And which strategies do the owners use to deal with the problems?

This study revolves around the owners' experiences with the obsolescence of their office buildings and the strategies they use to cope with the problems associated with obsolescence. To explain the backgrounds of obsolescence and to describe the conditions under which solutions may be found, the research treats processes and conditions on a scale higher than that of the owners (see figure 1.3). The backgrounds of obsolescence and the conditions for renewal operations are also reviewed in terms of findings from other micro-level studies, especially studies on criteria for location choice and the locational behaviour exhibited by the users of office space.

The empirical part of the research was restricted for practical reasons to the office markets of two Dutch cities, namely Amsterdam and Rotterdam. That part consisted largely of a secondary analysis of data that had been collected in surveys among the owners and users of office buildings, though statistical data were also used. Most of the available data on the behaviour of owners concern their investments in renewal of larger (> 2000 m²) obsolescent office buildings that were to be re-used as offices. The analysis emphasizes the experiences of owners whose buildings became or already were obsolete in the period 1985-1995.

Forms and backgrounds of obsolescence
Obsolescence is defined as the diminishing usefulness and/or attractiveness of a building and/or a location with respect to the function for which the building was designed or used for a long time. The effects of obsolescence - lower revenues, higher costs, and vacancies - are the result of the behaviour of office firms in reaction to obsolescence. The effects manifest themselves on the user market and the investment market.

Insights derived from the literature were used to construct a typology of obsolescence (see figure 2.5). This typology distinguishes between the obsolescence of the building and that of the location. One reason to differentiate these types is that the structure and the site are subject to different kinds of obsolescence. Another reason is that the problems affecting buildings and sites cannot be solved by the same measures; while owners can single-handedly upgrade their buildings, they cannot resolve locational problems on their own.
A property can become less useful or less attractive to office firms through changes in the characteristics of the building and/or the location but also through changes in the standards that firms apply to a building and its location. Obsolescence may also be relative.

The structural or physical deterioration of buildings is a long process of wear and tear, whereby the building's features change in absolute terms. Since this form of obsolescence is gradual and usually predictable, it is not seen as a major problem by the owners.
All the other forms of obsolescence fall under the heading of economic obsolescence. They are the result of developments on the demand and supply side of the office market but also of the changing structure of cities. They pose a greater problem to the owners; not only do these developments take place much faster, but they are unexpected and unpredictable.
The functional obsolescence of a building is a result of the changing standards set by the (potential) users of office space and/or the changing legal framework for safety and working conditions. An ample supply of new office space leads to a relative obsolescence in the stock of existing buildings. This occurs when the differences in quality and rent level between existing and new office space are limited, a situation that promotes filtering among office firms.
The functional obsolescence of the location refers to structural or absolute changes in the characteristics of a location and the changing location criteria of office firms. What these forms of obsolescence have in common is that they can take place quickly. Even the structural obsolescence of a location - an outcome of the dynamics of cities - occurs much faster than the structural deterioration of office buildings. Office sites are subject to relative obsolescence when there is an ample supply of office space at new locations.

The impact of economic obsolescence depends on the office market in general and in particular on the mobility of those who use such space. On the whole, office space in the Netherlands is rented out for comparatively short periods. Because of the rapid turnover, the negative effects of obsolescence can show up quickly.

Factors of obsolescence in Amsterdam and Rotterdam
During the post-war period, both Amsterdam and Rotterdam developed into large concentrations of office activities and office buildings. Yet these two office markets differ with respect to their starting point, economic structure, rate of growth, spatial structure, and so on. Notwithstanding these differences, the course of the cycle of the office market in both cities has been roughly the same. The market in both cities has been driven by demand for much of the research period. In addition, office firms in both cities showed high rates of mobility and filtering to new premises. All these factors have contributed to obsolescence. However, the market conditions were not quite the same in both cities. Long vacancies are more prevalent in Rotterdam than in Amsterdam. The main reasons for vacancy in Rotterdam are building defects and unattractive locations. In contrast, vacancy in Amsterdam is largely due to the market situation, though there are also buildings and locations that do not meet the standards of the office firms.

Owners and obsolescence
According to the surveys, the owners of office buildings were confronted with various kinds of obsolescence, though not with the whole range discussed above. While they gave evidence of functional obsolescence and structural deterioration of buildings, there was hardly any mention of obsolescence of the location. Yet that factor is clearly

documented in other sources. Why did locational obsolescence not figure in the owners' responses? One reason may be that the segmentation of the office market allows locations that are unattractive to some segments to remain or become attractive to other segments of the market. Another reason may be that some owners have limited knowledge of the local market. Alternatively, owners who have held a building for a long time in their portfolio tend to ignore the locational problems, whereas owners who have recently acquired a building in order to invest in renewal seem to underestimate its locational problems.
While there may indeed be some denial or underestimation of locational obsolescence by the owners, they are all aware of obsolescence in general. The owners are directly confronted with the effects of obsolescence - vacancy, diminishing revenues, and rising operating costs. Obsolescence has direct implications for returns and rentability. For instance, it becomes an issue when sitting tenants make the renewal of their lease contingent upon upgrading of the premises, thereby compelling the owner to pay attention to the problem of obsolescence.

Dealing with obsolescence
In theory, the owners of obsolete office buildings have a whole range of strategies to choose from (see figure 3.1). These strategies may be grouped under two headings: property development (refurbishment and redevelopment, intended for either re-use as offices or as accommodation for other functions); and other forms of management (entailing little or no upgrading, intended for either maintenance or sale). Some of the literature seems to suggest that redevelopment - demolition of the old building and new construction on the site - is the almost inescapable fate of obsolete buildings. The rationale is that the value of the existing structure with the old function will drop below the value of the site if it were prepared for building, either to serve a new function or to preserve the old function but in a new form. In the same vein, refurbishment - that is, changes made in a building in order to upgrade it in line with current standards - is seen as a less extreme form of intervention for the medium range. The corresponding models of redevelopment and refurbishment provide insight into the problems of obsolescence and the means to resolve them. Those models provide the financial conditions needed for property development. A project is only viable if the market value of the development is higher than all the costs. In practice, redevelopment is not the simple and self-evident solution for obsolete office buildings in Amsterdam and Rotterdam. Time and again, it proves that a project cannot meet the financial conditions and that it is the owners themselves who block the road to redevelopment.

General conditions for investment in renewal on the office markets of Amsterdam and Rotterdam
During the research period, 1986 - 1995, conditions on the office market in Amsterdam and Rotterdam stimulated obsolescence. At the same time, the conditions for investment in renewal were bad; specifically, the relatively low rents discouraged upgrading. In both cities, the market conditions for investment in renewal were worse between 1991 and 1995 than in the previous period (1986 - 1990). The environment in Amsterdam was better than in Rotterdam. Amsterdam's office market offered investors higher rents, lower risks, and a level of demand that reflected the capital city's larger and more

diversified local economy. Despite the unfavourable market conditions, in both cities the regulatory setting encouraged investment in renewal and re-use. Research among the users of refurbished and redeveloped office buildings in both places shows that upgraded premises at attractive locations are favourably positioned on the market.

Decision-making by owners

Even though the overall conditions of the two cities were unfavourable in both periods, the owners of office premises did invest in renewal for a variety of reasons. Notwithstanding the general conditions, some locations and buildings offered the long-established owners commercial opportunities but also had potential for the new owners. In many instances, the established owners have invested in property for defensive reasons. Some aspects of their investment decisions now limit their capacity to resolve the problems of obsolescence.

In principle, the owners of obsolete office buildings can choose from a wide range of strategies to deal with these problems, though the range of realistic options is narrower (see figure 4.1). In most cases, the degree of obsolescence makes it impossible to extend the lease without spending money on renewal. In many cases, financial reasons may lead the owners to reject certain strategies: the seemingly easy option of sale; investment in large-scale redevelopment; and adaptation of the building to serve new uses. Because of the market conditions and the relatively low rents on the office market, the going price for obsolete buildings is low in comparison to the value on the books of the long-standing owners (mainly pension funds and insurance companies). Many owners will reject the option of redevelopment for the office function as long as the costs are too high in relation to the rent level - a situation that could arise on the market. The options of redevelopment or refurbishment for other uses are also rejected, as long as the revenues are too low. For many owners, the financial disadvantages of sale and re-use for other functions are so evident that these strategies do not even enter into their research and decision-making process.

The conditions for investment in renewal were not favourable during a large part of the research period. Yet for the majority of owners, the alternative strategies - extension of lease without refurbishment, sale, change of function - were even less attractive. Because of the difficult financial conditions, many owners took a cheaper route to renewal. The strategy they chose was to invest the minimum amount that was necessary to keep the office building on the market or to put it back on the market. The redevelopment option was chosen only when no alternative strategy was possible, and they preferred a solution that did not call for the demolition of the old building. In such cases, the decision-making generally led to some form of refurbishment. Only for some projects at prime locations in Amsterdam, where market rents were high, did investors take the path of high-quality redevelopment for the office function.

The financial constraints played a key role in the decision-making. The limited financial scope for investment in renewal was not only the result of the realistic market rents for office space and for other uses; it was also a result of the financial obstacles introduced by the long-term owners themselves. In the event of sale, the price they asked for the

obsolete building was often much higher than the going market price. The unrealistic asking price also frustrated their own investment activities. This behaviour may be traced back to the use of old-fashioned methods of bookkeeping and valuation. The phenomenon of bounded rationality is characterized by decision-making on the grounds of rational market elements such as criteria for returns and risks in combination with irrational valuing and bookkeeping practices.

When selecting a strategy for obsolete buildings, the owners also take into account other factors besides the criteria of returns and risks. They also consider factors with regard to the characteristics of the premises (quality of the building and the location, adaptability of the building), the market situation, and the planning regulations. While they pretend to use tough criteria, certain standards are relaxed in the course of the decision-making process. In practice, they even make concessions on their own priorities (e.g., amount of parking space).
The investments in renewal are mainly intended to retain or reinstate the rentability of the premises. The market position of the buildings can be improved by raising quality, lowering costs, and improving marketability; the last aim is achieved by expanding the building's appeal to more segments of the market. The yield is increased through the higher rents and lower operating expenses that renewal may bring, especially when supply is short. Renewal activities are coupled with changes in the position of the buildings in the market. The changes primarily concern the transition from the owner-occupied to the rental sector and from the single-use to the multi-occupier sector.
Creating facilities for more and smaller users increases the rentability of the property.

Many publications in the field cite 'location, location, and location' as the three most important factors in the success of properties. Some of the criteria applied by owners when choosing a strategy for their obsolete buildings are specifically locational characteristics. For instance, they may base their decision on a preference for a prime location, accessibility by car, and sufficient parking spaces. In that light, one could expect to see clear spatial patterns with regard to the investment in renewal for the office function and the chosen renewal strategy. At least one would expect to see such patterns in the activities of those actors who had the option to buy an obsolete office building. However, the expected spatial patterns did not turn up in the analysis. One explanation might be that too few cases were included to get a good picture of the patterns. But it is also possible that the patterns are just not as clear on the ground as they are in theory. Many cases of investment where the intention is to continue the office function are at locations where one should truthfully not expect to find such investments. One reason may be that real estate projects are unique combinations of the characteristics of the building, location, users, owners, and timing. Another reason may lie in the segmentation of the office market: locations that no longer appeal to some office firms can become accessible to other kinds of firms. An important part of the explanation is the nature of the decision-making process itself. Each of the actors has a distinct opinion about location and makes particular concessions in the decision-making process. Besides that, one must take into account that, against the backdrop of a less favourable market situation, many owners adopt defensive problem-solving strategies instead of taking up the challenge to develop a property. With regard to this last point, the long-term owners,

among whom the defensive attitude dominates, should be distinguished from the developers (ordinary property developers, institutional investors, and owner-occupiers) who do take up the challenge and move ahead to acquire the obsolete property.

As pointed out earlier, the conditions for investment in renewal were more favourable in Amsterdam than in Rotterdam. The actors in the property sector understand that fact and have taken action based on that knowledge. There are indications that in Amsterdam the property developers, who acquire obsolete office buildings in order to renew them to serve the office function, mostly make their investments at their own risk. Investment in renewal in Rotterdam has been linked to the activities of owner-occupiers, pressure exerted by sitting tenants, and development deals that include both new and obsolete buildings.

The economic obsolescence of office buildings poses serious problems for owners. The market situation puts constraints on easy solutions. As the behaviour of the acquiring developers as well as that of the long-time owners illustrates, different actors on the real estate market are able to cope with the challenge of obsolescence. The prevailing idea that the problems of obsolescence are almost incurable has more to do with the constraints created by the decision-making and behaviour of the long-time owners than with obsolescence itself. The main obstacles to solutions on the basis of market principles are the owners themselves. As players on the market, they do not act according to the rules of the market. If they were to place a realistic value on their obsolete properties, they would almost always find a solution. The financial sacrifices this might entail can be ascribed to past decisions - whether to invest and how much to put into a building with certain features for a given price at a particular location - rather than to the less favourable conditions on the market at the present time when new decisions must be made. Either way, the actors are making decisions under conditions of bounded rationality. In the future, developers of and investors in office buildings will be faced with the challenge of creating flexible and sustainable premises at locations that retain their appeal to office firms for a long time. By preserving the attractiveness, they can limit the effects of economic obsolescence but also of relative obsolescence.

Current research issues

Given the dynamics of the economy over the past fifty years, the rapid growth of the office sector comes as no surprise, nor does the continuous evolution of the users' standards for accommodation and location criteria. As the spatial structure of urban areas developed, new office locations emerged and existing locations were re-evaluated. The economic obsolescence of office buildings may be explained by these developments. With an ample supply on the office market and the strong mobility of office organizations, the effects of obsolescence came to the fore. Meanwhile, the owners of office buildings have been confronted with the effects of premature and unexpected obsolescence in a situation that leaves them little financial scope for a good return on investments in renewal.

A critical reader might say that the preceding section only deals with problems of the past, a bygone era in the development of the Dutch office market. Granted, the biggest problems of obsolescence show up in buildings dating from 1950 to 1980, when the office sector was

booming and the rental market was getting off the ground. Since 1980, however, new construction and installation techniques have been introduced. A new generation of office buildings has been added to the stock; in fact, thirty per cent of the present stock was built over the last ten years. In addition, numerous obsolete office buildings have been refurbished, redeveloped, or withdrawn from the market. Against this background, the timeliness of the theme of this research becomes fully apparent. How much economic obsolescence will there be in the future, and will it be more manageable than in the past?

The office market consists of a large stock of premises with a long technical lifespan; the stock grows by just a few per cent per year. Because of the cyclical character of the office market and the limited elasticity of the supply of new space in the short term, there will regularly be periods in which much new office space comes onto the market, even though demand is decreasing at the same time. In light of the dynamic nature of the society and the economy, office firms and institutions will have to remain flexible. Assuming that Dutch office markets will continue operating on the basis of short-term leases, the demand for accommodation will also be flexible. A flexible demand will go hand in hand with filtering from existing to new office premises. Both relative and functional obsolescence of office buildings will continue to occur in the future, and so will relative and functional obsolescence of office locations. Office concentrations tend to expand geographically when office space is scarce but contract when office firms have ample choice. The high mobility of current users will speed up the obsolescence of those fringe and overflow areas and other office locations that do not satisfy modern quality standards.

During the research period, there were financial constraints on investment in the renewal of office premises. Over the past few years, real growth in rents has created more financial leeway for that kind of investment. Rents increase as a result of scarcity, the rising price of land, higher building costs, better quality of construction, and the readiness of office firms to pay higher rents. Scarcity, both on the office market and on the real estate markets for other uses, has more influence on the financial possibilities for investment in renewal than does the users' willingness to pay higher rents. In periods of emerging scarcity, the strategy of refurbishment is attractive; indeed, high-quality office space can be supplied quickly via refurbishment, whereas redevelopment requires more time. Thus, the redevelopment process must start before there is scarcity on the market.

Economic obsolescence took the owners in this study by surprise, whereas current owners already know what it means. Its impact will be less severe in the future, as the actors on the office market will surely take measures in advance. They will incorporate financial aspects of economic obsolescence in their management plan from the outset - at the time of acquisition or as soon as the development process gets started. The problems that obsolescence can generate are now taken into account at the design stage; the design of new office buildings therefore incorporates adjustability and flexibility into the programme.

The economic obsolescence of office premises will be a manageable problem for owners only if the locational obsolescence of the sites can be prevented. As in the past, a strong mobility of office firms can be expected in the future. There will be a large volume of filtering within and between office concentrations in different parts of the cities. But when

locations become less useful and less attractive to office firms and when they do not meet modern standards, the problems cannot be solved by the owners of the premises alone. Then, a regionally co-ordinated policy of local governments will be needed to upgrade the quality and capacity of existing office locations before releasing an ample supply of greenfields for office development. As long as existing office locations retain their appeal to office firms, the rent level can be kept up through a 'locational premium' effect. This creates additional financial possibilities for investment in renewal of the buildings.

The property sector in the Netherlands is a changing landscape of actors and methods. The owners who are active on the real estate investment market have become more professional over the past decade. External benchmarks have forced them to act with greater transparency, show more market-responsiveness, and be more realistic in their book-keeping. Thus, one may expect to see fewer constraints on investment in or sale of obsolete office buildings. A more 'normal' market of obsolete buildings will come into play, whereby possibilities and challenges will arise for different kinds of actors, including private investors.

Many property developers have already built up some experience in the renewal of obsolete office buildings, both for the current function and for new ones. It is important to build up experience in the large-scale, complex, mixed-use development of entities larger than individual sites. In the event that an office location becomes obsolete, a comprehensive approach to the development of the whole brownsite would be preferable to developing individual objects separately. That comprehensive approach would require local governments to play an overarching role.

The phenomenon of economic obsolescence will become more manageable in the future, though it will continue to create problems. The enduring challenge to owners, property developers, and local governments is that they must work together to find new solutions at a larger and more complex scale. Their task is to work out area-based, comprehensive, and mixed-use forms of property development.