The discussion of geographical trends in the garment industry in Chapter 1 briefly touched on the unique position of the US and Mexico in global garment trade flows. The US occupies an all-round central position in the global garment arena: it is the largest single-nation market, the largest producer and the largest importer. Mexico is a remarkable rising star in garment exports: from a position in the bottom ranks of LMIC garment exporters, it rose to become the main supplier country for the US market, displacing established suppliers such as Hong Kong and South Korea.

This chapter focuses on the background, main features and integration of the garment industries in the US and Mexico, and sketches the concrete industrial context within which the garment industry in La Laguna operates. After a brief presentation of geographical shifts in garment employment in both nations in section 3.1, section 3.2 presents the historical developments in the US garment industry during the twentieth century. Then, trade regulations – which enhance the competitiveness of US garment manufacturers through the apparently contradictory measure of allowing them to shift manufacturing activities to low-wage locations – are examined. The Texan border city El Paso is also introduced. This city was an important concentration area for garment manufacturing in the southern US and a typical representative of the US manufacturing scene in basic, standardised garment production. Moreover, recently it has become an important connecting hub between garment production in Mexico and the US market and its buyers. Section 3.3 presents the main geographical, historical and regulatory trends in the Mexican garment industry over the past decades. Section 3.4 examines how the North American Free Trade Agreement (NAFTA) liberalisation may impact the US-Mexico division of labour in the garment industry.

3.1 Overture: shifts in garment employment in North America

Over the past decades, Mexico has changed from being an inward-oriented country, to being a hesitant and partial exporter to the US, to becoming a major supplier of the US garment industry under NAFTA. Mexico’s current position is built on two pillars. First, it owes its unique position largely to production-sharing arrangements between US and Mexican garment manufacturers. This pattern has been shaped over decades but has intensified dramatically since 1994, when NAFTA granted Mexico preferential status above all other supplier countries with regards to exports to the US. NAFTA liberalisation affected the entire manufacturing sector but its effects were immediate and dramatic in the case of garments: garment exports from Mexico to the US skyrocketed. Because of this, the industry has been presented as a showcase of the impact of NAFTA by its supporters but also by sceptics on both sides of the border. Lending an ear to former presidential candidate Ross Perot’s ‘sucking sound from the border’, US manufacturers, politicians and especially labour representatives have accused NAFTA and its negotiators of allowing Mexico to steal jobs from the US economy. In Mexico, NAFTA is accused of enabling US TNCs to take advantage of the existing wage level differential to pay Mexican workers a fragment of the wages of their US colleagues.
Figure 3.1: Garment employment in the US and Mexico, mid 1960s and late 1990s

Source: USITC (2000 and personal communication) and INEGI (1966, 2000)
Furthermore, the profits made through this arrangement are exported and the impact on local economic development in Mexico is minimal for lack of local linkages of these firms. Ironically, business analysts – especially in the US – side-step such antagonistic accusations and foresee a fruitful ‘Western hemisphere’ partnership that is necessary to curtail or counter the common threat of Asian imports and industrial success.

Second, from an industrial perspective, the global industry trends as outlined in Chapter 1 are also seen to support the strong position of Mexican garment exports. Current market trends and retailing strategies are intended to shorten lead times throughout the supply chain and put a potential premium on geographical proximity. Latin America – most specifically the Caribbean Basin and Mexico – has benefited from this trend and is now the second most important wearing apparel supplier region to the US market.

The materialisation of both pillars relies on and points to a tight functional integration of the US and Mexican garment industries. The dramatic impact of these processes on the geography of the industry in both nations over the last decades of the twentieth century is illustrated in Figure 3.1.

A comparison of both maps in Figure 3.1 provides a dramatic illustration of the contrary developments of the US and Mexican garment industry: overall, garment employment in the US has shrunk while it has boomed in Mexico. Furthermore, the geographical shift of garment employment in the US towards the southern states and a concentration in northern Mexico illustrates the growing importance of a bi-national division of labour between these industries.

In the 1960s there was little or no linkage between the industries in the two countries, but in the 1990s this changed. Behind the map image of the situation in the late 1990s lies not only a quantitative increase of garment assembly in Mexico but also – as will be elaborated later in this chapter and in Chapter 7 – a qualitative shift in the bi-national value chain towards greater integration of the production process in Mexico.

Using Figure 3.1 as a pivotal point of reference, the following sections will examine changes in the US and Mexican garment industries.

### 3.2 Historical developments in the US garment industry

Though recent changes have had a profound impact, the current structure and interrelations between the industries in North America cannot be fully understood in isolation from former structures and trends. In fact in some ways, and certainly with regard to the industry in the US, current patterns appear to be an extension – in intensified form – of pre-existing patterns (Taplin, 1997; Glasmeier et al., 1993). A number of historical trends and traits in US garment production deserve mention here as they appear to still have an impact on organisational and spatial strategies.

Originally, the garment industry in the US was concentrated around the main markets, especially New York. This began to change with the emergence of jobbers. Their emergence at the beginning of the twentieth century (see section 1.1) is significant not only because it initiated a process of vertical disintegration of US garment firms. More important is the fact that when some jobbers replaced their northern-based assembly contractors with cheaper contractors in the South, they initiated a national relocation process that resulted in what could be called a new national division of labour in the US clothing industry. Marketing and design activities remained confined to the head offices of jobbers in the North, and
manufacturing activities were shifted to subcontractors/contractors in the southern states. The first map of Figure 3.1 illustrates garment employment in the US for the mid 1960s, when the shift of manufacturing to states such as North and South Carolina and Tennessee was already well on its way.

The underlying logic of this geographical shift is rooted in labour cost differences and price competition. Existing large differences in labour cost and availability within the US made domestic cost-based relocation a viable option for the US garment industry. This appears to have had two important implications. Firstly, the emerging national division of labour between the North and South may have set the tone for the narrow, cost-based competitive strategies the US apparel industry was diagnosed as having several decades later (Bailey, 1993; Glasmeier et al., 1993; Taplin, 1997). Taplin (1997, p. 90) is most explicit with regard to this point:

"Earlier strategies, with a focus on ‘cost-driven’ competition, led to investment choices [particularly location and the organisation of production] that were predicated on wage lowering principles. The managerial orientation towards workers was to see the labour force as a disposable entity rather than as a resource to be developed. Subsequent strategies were constrained by these earlier structures which limited managerial choice in an industry that was and remains volatile, highly competitive and with short-term profit horizons."

Extending this line of thought, it could be argued that the low wages and large reserves of immigrant labour in the southern US greatly reduced the incentive for modernisation and technological and managerial innovation, processes that were given much emphasis in other high cost garment producing countries such as Germany and Japan (Bailey, 1993; Glasmeier et al., 1993; Taplin, 1997).

Above all, however, the emergence of jobbers appears to have set in motion a process leading to dualism in the US garment industry. This dualism runs along geographical as well as product specialisation and organisational lines. Over the course of the twentieth century, the US garment industry was increasingly split into a northern, metropolitan and a southern segment, or a modern and a conservative segment, a retail-minded and a manufacturing-minded segment, respectively. The garment industry in the south-eastern states – such as Texas, Georgia, Tennessee and South Carolina – was and still is geared towards the manufacturing of standardised, mass-produced ‘commodity’ garments, such as jeans and tee-shirts in the ‘Men’s and Boys’ segments’ of the market (Taplin, 1997; Green, 1998). The cost efficiencies of most southern factories are based on economies of scale. Most businesses are family-owned and managed, and a conservative business attitude predominates (Bailey, 1993; van Dooren & van der Waarden, 1997; van Dooren & Verkoren, 2003). Also, many southern factories are contractors with only a limited command over the manufacturing process (van Dooren, 2002). Except for a few large branded manufacturers, marketing has become one of the main problems of US apparel manufacturers and contractors in general. This applies especially to southern contractors, as they are both organisationally and geographically divorced from the main markets and marketing channels. Nevertheless, throughout the 1980s and part of the 1990s garment production in the South showed considerable dynamism, when at the national level the industry was shrinking. Especially noteworthy is the growth of apparel complexes along the US-Mexico border, in El Paso and McAllen, Texas for example (van Dooren, 2002). The apparel cities along the border depend heavily on commuters and immigrant labour from
Mexico (Spener, 2002; van Dooren & van der Waerden, 1997). The exception to the noted southern pattern based on the large-scale production of standardised wearing apparel, is the area of Los Angeles. There, small-scale, flexible, sweatshop-like contractors produce mostly California-style sportswear or casual wear, mostly for women or girls (Taplin, 1997; Kessler, 2002).

The current pattern is an extension of these trends. Within the context of national decline, the concentration of garment manufacturing close to the US-Mexico border remained stable or grew until the mid 1990s and garment employment in the traditional north-eastern garment states has shrunk. Meanwhile, globalisation underpins the position of global metropolises such as New York and especially Los Angeles (Sassen, 1991). These metropolises and their immediate surrounding areas still stand firm as fashion centres based on an edge in fashion-oriented women’s wear and sportswear (see Figure 3.1; Taplin, 1997; Palpacuer, 2002; Kessler, 2002). However, Palpacuer (ibid.) and Kessler (ibid.) show that globalisation also poses significant challenges, transforming the structures of the metropolitan garment industries since the 1970s. Casual wear for women has remained the principal niche product of the two areas. Production has always been concentrated in small and labour-intensive factories; owners as well as employees are commonly immigrants (Taplin, 1997; Dicken, 1998). Both cities have also retained strong positions in the core nodes of the GVC, in design, fashion and marketing, but they also – against the national trend – retain a manufacturing base (Palpacuer, 2002; Kessler, 2002). These strengths are based on and reinforced by the presence of the head offices of large retailers and designer label and private label marketers and by smaller independent manufacturers. These buyers are driving the globalisation process in the garment industry by sourcing from contractors and suppliers in numerous countries across the globe. Even as the sourcing networks of US metropolitan-based buyers have expanded to truly global dimensions, many buyers still retain a small, local contracting base (see Figure 3.1). Most of the manufacturing in these areas is based on relatively stable contracting relations with large buyers who place relatively small batch and quick response orders with local contractors (Palpacuer, 2002).

The contrast with Southern contractors is clear. Irrespective of their location, US contractors are captive to the product development and marketing decisions of their larger customers (Glasmeier et al., 1993). Whereas the metropolitan garment manufacturing bases were able to find stability based on close cooperation between contractors and buyers, high responsiveness and flexibility, large numbers of garment factories in the South found themselves in a hard spot. Decades of relying on low-wage labour and large-scale, standardised mass-production appear to have led to unresponsiveness to buyers’ demands, a problem that has become more acute now that fashion trends change more rapidly. Southern strategies have been principally aimed at de-skilling and automation, thus jeopardising flexibility. In recent years, the relationship between US buyers and apparel contractors in the South appears to have become more distant and strained.

Meanwhile, the globalised world economy has opened up numerous options for US buyers to organise and structure their networks in search of the perfect balance of cost, flexibility and turn around times. In global networks, US contractors have become less important: Palpacuer (2002) estimates that on average only 15% of the total production of buyers based in New York is produced in the US, almost entirely by local, New York-based contractors. Thus US contractors...
in the South are increasingly excluded from the networks of the major US buyers that prefer
the service, flexibility and low prices offered by offshore suppliers.

Rather than accepting the erosion of the domestic garment manufacturing base, the US
government devised protectionist (see Chapter 1) as well as restructuring measures. The latter
are the most relevant here. Restructuring measures were formulated to allow US manufacturers
to counteract the import threat by ‘doing battle against Asia’ (Business Week, 1998; Twin Plant News,
1999; López Navarrete, 1997). Based on the doctrine of ‘If you can’t beat ’em, join ’em’, they
couraged the internationalisation of production, mostly through production-sharing
arrangements as a means to enhance the cost competitiveness of domestic manufacturers. In
practice, these production-sharing arrangements cemented a strong link between the US,
Mexico and various Caribbean countries.

3.2.1 Offshore production

Protectionist trade measures were devised soon after the appearance of Japanese garments in US
stores in the 1950s set the alarm bells ringing in the domestic garment industry. Then,
restructuring of the domestic industry, with the aim of confronting and beating imports, was
beginning to be stimulated. The US production-sharing trade regulations designed for this
purpose had separate rules for the pre-assembly, assembly and post-assembly manufacturing
nodes of the value chain (see Figure 1.2). The most important program of this kind – the 807
Program – shaped the division of labour patterns between the US and Mexico and other nearby
LMICs for several decades. The strict rules and limitations on production sharing between the
US and Mexico were liberalised by the passage of NAFTA in the mid 1990s.

The 807/807A Program

The most important policy designed to improve the competitive position of US garment
manufacturing is the 807 or ‘Production Sharing’ Program of 1964. It encouraged the relocation
of labour-intensive, low-value-added production activities (usually assembly) to low-wage
countries, by exempting duty on the value of the US-manufactured components assembled
abroad that are part of the imported article. Upon re-entry to the US, duties thus needed to be
paid only on the value added abroad in the assembly process. The 807 Program allowed US
manufacturers to take advantage of low wages in foreign countries without being subjected to
high import duties. Depending on the program used, US or foreign fabric can be used: for the
807 Program fabric has to be formed and cut in the US; for the 807A Program, fabric could be
formed elsewhere as long as it was cut in the US. Especially Mexico and the Caribbean countries
became involved in production-sharing arrangements with the US (Dussel Peters, 1997a, 1997b;
Spener, 2002; Dickerson, 1995; USITC, 1997 Rees et al., 1997; Green, 1998): Mexico mostly used
807, the Caribbean countries – because of the use of large volumes of Asian fabric – mostly 807A.

In order to fully exploit production-sharing opportunities based on the 807 Program or, as it
was later known, Harmonized Tariff Schedule (HTS) 9802, most Caribbean and Latin American
countries created export processing zones (EPZs) or arrangements similar to EPZs. Arrangements
may vary, but usually include total tax exemption for imports of inputs and for
exports of final products. As such they serve as the counterpart to HTS 9802. They provide
additional incentive for US apparel firms to use assembly operations in Mexico and CBI. In
1996, 59% of garment exports from the Dominican Republic to the US entered under 807,
compared to 55% for Honduras and 62% for El Salvador, for example (USITC, 1997). In practical
In terms of garment production this means that garment pieces have to be cut in the US, assembled in Mexico or the Caribbean, and finished in either the US or Mexico or the Caribbean country in question. Cutting rooms had to remain in the US, because cutting would disqualify the finished garments from duty exemption upon re-entering the US. For finishing, the situation was a bit more ambiguous. Finishing, when limited to finishing activities that are ‘incidental to the assembly process itself’ (i.e. re-screening or trimming) could be done ‘offshore’. For jeans, for which laundering forms an integral part of the finishing process however, finishing had to be done in the US, because showerproving, permapressing, sanforizing, dying or bleaching of textiles would disqualify garments from 807 exemption. Thus, for several decades US production-sharing regulations effectively limited the Mexican and Caribbean side of production-sharing to assembly only, and simultaneously kept the higher value-added production activities in the US. For the CBI countries and Mexico, these provisions created employment and attracted foreign investment, but the impact on their local industrialisation process has been limited. In fact, rather than stimulating or deepening a local industrialisation process, they have truncated it (Mortimore, 1999).

NAFTA
Trade liberalisation between Mexico and the US undertaken as part of NAFTA represents a qualitative change in this arrangement. First of all, under NAFTA, the production-sharing arrangement as described above fell under the HTS 9802 provision. Immediately after the passage of NAFTA, products under this provision became completely freed of duties. Thus after

Table 3.1: Shifts in the top-10 garment exporters to the US (in US$ 1,000)

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>6,770,240</td>
<td>China</td>
<td>7,785,471</td>
<td>Mexico</td>
<td>9,777,083</td>
</tr>
<tr>
<td>Mexico</td>
<td>4,670,307</td>
<td>Mexico</td>
<td>7,687,945</td>
<td>China</td>
<td>9,564,344</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>4,008,782</td>
<td>Hong Kong</td>
<td>4,497,007</td>
<td>Hong Kong</td>
<td>4,597,523</td>
</tr>
<tr>
<td>Taiwan</td>
<td>2,177,001</td>
<td>Taiwan</td>
<td>2,372,313</td>
<td>India</td>
<td>2,504,975</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1,789,602</td>
<td>Dominican Republic</td>
<td>2,336,316</td>
<td>Honduras</td>
<td>2,406,094</td>
</tr>
</tbody>
</table>

Source: US Major Shippers Report, 2002

Table 3.2: Relative importance HTS 9802 garment imports into the US (customs value, US$ millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total apparel import</th>
<th>Total 9802 trade</th>
<th>Total 9802 trade as % total trade</th>
<th>Mexico apparel import</th>
<th>Mexico 9802 trade</th>
<th>Mexico 9802 trade as % total trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>36,878</td>
<td>5,707</td>
<td>15</td>
<td>1,889</td>
<td>1,470</td>
<td>78</td>
</tr>
<tr>
<td>1996</td>
<td>41,679</td>
<td>8,719</td>
<td>21</td>
<td>3,850</td>
<td>2,967</td>
<td>77</td>
</tr>
<tr>
<td>1998</td>
<td>53,874</td>
<td>12,791</td>
<td>24</td>
<td>6,812</td>
<td>5,102</td>
<td>75</td>
</tr>
<tr>
<td>2000</td>
<td>64,181</td>
<td>12,953</td>
<td>20</td>
<td>8,730</td>
<td>5,071</td>
<td>58</td>
</tr>
</tbody>
</table>

Source: USITC, 2002
1994, Mexican garments were allowed into the US without any duties at all (see also Box 3.1). As illustrated in Table 3.1, it caused Mexico’s garment exports to the US to soar.

Initially, NAFTA liberalisation provided a strong impetus for the growth of the US-Mexico garment trade based on production-sharing principles. In 1995, a year after the passage of NAFTA, 80% of total garment exports from Mexico to the US were covered by HTS 9802 (Dussel Peters, 1997b). In fact even in 2000, US-Mexican production sharing still accounted for a large share of Mexico’s exports to the US, but its relative importance had diminished significantly (see Table 3.2).

**Box 3.1: Explaining the dramatic impact of NAFTA on garments in North America**

On the surface, NAFTA appears to have been little more than a continuation or intensification of already existing programs. Yet, as shown, since the coming into force of NAFTA garment exports from Mexico to the US have skyrocketed as production formerly undertaken in the southern US, the CBI region and even Asia was relocated to Mexico.

Two aspects of NAFTA help explain the landslide it caused. First, the abolition of duties on garments assembled in Mexico represented a very real and significant change in the cost structure of producing in Mexico. Before NAFTA – when exported garments carried duties on the value added in Mexico –, growth of the industry in Mexico had been hampered by the country’s slightly higher wages and lagging efficiency compared to its Caribbean and Central American competitors that competed under the same conditions. When NAFTA came into effect the sudden abolition of duties (which could range between 15% and 20%) on Mexican assembly exports to the US turned the tables as the duty advantages more than offset the slightly higher Mexican labour cost (USITC, 1997). From one day to the other, Mexico became a cheaper production location for garments than other countries in the ‘Western Hemisphere’.

Second, NAFTA entailed a phased but complete liberalisation of all hitherto existing rules and regulations that penalized the performance of pre- or post-assembly activities on garments for export in Mexico. In other words, NAFTA paved the road for integration of the garment production process in Mexico. This latter consideration is very important as it attracted new types of buyers to Mexico: the retailers and marketers. Their involvement in Mexico before NAFTA had been minimal due to the fact that these buyers want to buy finished products, or ‘full packages’. They could not and would not deal with the logistical and organisational complications of doing just assembly in Mexico, as branded manufacturers and contractors with their Mexican maquiladoras had done. Thus, with the prospect of integration of the production process within its borders, Mexico began to attract a large number of new and important buyers and Mexican garment factories could become engaged in new types of export networks (see also section 3.4).

Mexico has the inherent advantage of sharing a long land border with the US. The possibilities this opens up for cheap truck transport, short transportation time and thus quick response and flexible production are important. The increasing importance of these factors is emphasised in much of the literature on the Mexican garment industry that deals with regionalisation of sourcing patterns. However, it is important to emphasise that these advantages were not large enough to cause a relocation to Mexico prior to NAFTA.
This shift is stimulated by the benefits of NAFTA: since 1994 the production-sharing conditions on duty elimination have gradually been lifted. This provides a strong impetus for further integration of the Mexican and US garment industries. For example, soon after the passage of NAFTA the finishing of garments was liberalised, followed by cutting in January 1999 (Spener, 2002). These liberalisation measures have paved the way for increased integration of the garment production process within Mexico. This development is reflected in Table 3.2 in the decreasing relative importance of HTS 9802 trade as part of total Mexican garment exports to the US.

The (potential) integration of the production process in Mexico attracted new types of buyers, most notably retailers and designers, to the country. With regard to US manufacturers and contractors, NAFTA represents both opportunities and threats. HTS 9802 encouraged mostly large, branded manufacturers to set up FDI facilities in Mexico and the CBI. The impact on US garment SMEs remained relatively limited. By comparison, the impact of NAFTA has been more powerful, leaving certain segments – most notably domestic US contractors and SMEs in the mass-standardised garments – with little choice but to participate or to go out of business (van Dooren & van der Waerden, 1997). The southern US states suffered the consequences of relocation under NAFTA. The impact has been especially dramatic on local economies that had specialised in garment production, such as El Paso.

### 3.2.2 Garment production in El Paso: just a fleeting phase?

El Paso – formerly nicknamed the ‘Jeans Capital of the World’ – is illustrative of the structure, development and recent demise of standardised garment manufacturing in the US. For decades, it was firmly entrenched in the national division of labour as the national stronghold of jeans manufacturing. This narrow product specialisation created a local growth spurt when in the 1980s stone-washing boosted and sustained the sales of jeans (van Dooren & van der Waerden, 1997). However, far-reaching product specialisation also explains the collapse of the local industry in the late 1990s.

El Paso was one of the main domestic destination areas for relocated garment production in the US; the first garment factory in the city dates back to the late nineteenth century. After that, WWII and the concomitant demand for uniforms boosted the local industry, so that by the time the relocation of production from the Northeast to the South accelerated, El Paso was already an attractive destination (McIntyre Mitchell, 1955). The industry could draw from a virtually inexhaustible and low-cost labour force from Cd. Juárez, just across the border. On top of that, part of this labour force had sewing experience and the region had a humble industry-specific infrastructure.

From the early years on, garment factories in El Paso specialised in the mass production of standardised garments (see McIntyre Mitchell (ibid.) for a detailed discussion of the city’s historical development). Jeans, overalls and shirts were the city’s main garment products. Already during the 1950s blue jeans accounted for the major part of total garment production in El Paso (García Fernández, 1995).

Apparel manufacturing was highly important to the local economy: by the early 1960s over 40% of the working population in El Paso worked in the garment industry. A small number of large factories, employing several hundred and sometimes a few thousand persons, dominated the local industry from the early years onwards, and the average size of the factories was far greater
than the national average (van Dooren & van der Waerden, 1997; van Dooren, 2002). Their dominance increased over the course of the decades, when local companies such as Farah and Mann were joined by branch plants of Levi Strauss, Lee and Wrangler. In the heydays of the Jeans Capital, there were eight large Levi Strauss branch plants in the city. El Paso and the mass production of jeans made a near perfect match and the local industry proved resilient and remained largely unaffected by the national downturn in the industry in the second half of the century. Between 1962 and 1989 national garment employment shrunk by over 14% and garment employment in El Paso grew by 202% (Simcox, 1993). El Paso benefited from an increased emphasis on cost competition, caused by cheap imports and from production-sharing provisions stipulated by the US government that stimulated the establishment of cutting rooms and laundries in the border region (van Dooren & Verkoren, 2003). The local industry continued to thrive on the manufacturing of jeans.

Over the course of the decades, however, overall dependency on outside customers increased. Irrespective of their size, almost all local manufacturers served as assembly or cut-and-sew contractors, depending on one or only a few large customers for their orders. Most were medium-sized factories, using standard machinery and production methods, based on sewing lines. In line with the typical pattern of southern contractors outlined above, local factories did not have a say nor, in most cases, capabilities in product development and marketing. In many cases they also did not buy denim or accessories. Essentially a similar pattern applies to the branch plants of the branded manufacturers. They were dedicated to cutting, sewing or finishing, and depended on their headquarters outside El Paso for the shipment of inputs, product development and marketing decisions. Finishers were highly important in the local industry. Although their cooperation with their customers seemed closer and they were highly innovative, their dependency on their clients was as high as was the case for local sewing contractors. Several laundries dedicated all or the majority of their capacity to the laundering and finishing of Levi’s jeans. Only very few factories escaped this overall dependency pattern by serving a niche market such as sportswear or original design Western-style clothing (van Dooren & van der Waerden, 1997).

Only twenty years ago, El Paso was seen as ‘the cheapest, most efficient place in the world to make blue jeans’ (Berman & Mack, 1980). Nowadays little of this fame remains as the city is believed to be one of the US cities most hard hit by NAFTA (The Economist, 2001). NAFTA’s pull of labour intensive work to the Mexican side of the border has most negatively affected the garment industry in El Paso, effectively leaving it in ruins. The bitter fact is that its narrow product specialisation may have contributed to its fate: the local industry had not diversified out of jeans nor had it claimed independence through own branding or marketing strategies. Over the decades it remained a collection of branch plants and local contractors specialised in the manufacturing of jeans. The continued narrow product focus and cost competition explain why El Paso was also impacted by the sharp decline in demand for basic five-pocket jeans, the speciality of the city. While design efforts were being put into denim products in order to counteract plummeting jeans sales, several of El Paso’s major clients, especially the branded manufacturers, were slow to jump on the fashion bandwagon. Levi Strauss is the most notable example of this fact. The sales of this company, which used to rule the jeans segment of the garment market, plummeted between 1996 and 1999. This loss in sales translated almost directly into a sharp reduction in the number of Levi’s domestic plants and employees. In El Paso, seven of Levi’s eight plants were closed and the number of employees was reduced from
approximately 5,000 in 1996 to 800 in 2000 (van Dooren & Verkoren, 2003). The resulting ripple effect hit laundries, local contractors and cutting rooms, as well as those working in these businesses. The collapse of garment production and employment has had a devastating effect on very particular segment of the local labour market: almost 99% of all manual garment workers in El Paso were Hispanic. In addition, most of these garment workers were women, most had less than high school education and spoke English poorly or not at all (Spener, 2002).

Clearly, the garment workers were a very vulnerable part of the economically active population of El Paso with limited prospects for employment in other sectors of the local economy because of their bad command of the English language and their low education levels. Thousands of workers have lost their jobs, and most have not been able to find alternative employment.

3.3 The effects of liberalisation on the Mexican garment industry

Although there may not always be a direct connection between plant closures in El Paso and in other parts of the southern US on the one hand, and successful garment exports from Mexico on the other, in many cases Mexican contractors are replacing their US and possibly also their Asian competitors. This is remarkable, especially given the relatively short history of export-oriented growth and capabilities in the Mexican garment industry.

The first map in Figure 3.1 reflects the situation for the Mexican garment industry at a time when the country’s economic development strategies were based on import substitution industrialisation (ISI). Garment production was oriented towards the domestic market and was concentrated in and around the main market in Mexico City, in states such as Guanajuato, Mexico and Puebla. Small factories, ‘mom-and-pop’ shops and home workers predominated (Peña St. Martin & Gamboa, 1991; Vangstrup, 2002; Benería & Roldán, 1987; Smith, 1988) and half of the factories operated in the informal sector, serving local or regional markets. Overall, the garment industry was not a particularly important industry or employment creator.

Several decades later the pattern has changed completely (see Figure 3.1): the pattern of the small-scale, semi-informal, domestic market segment has been overlaid with a more dynamic, large-scale export segment centred on the maquiladoras (export factories commonly run by a foreign company and limited to assembly activities). This shift is largely due to the contrary impact of Mexican liberalisation policy (see section 3.2.1) on both these segments. Firstly, since Mexico joined GATT in 1986, a very large influx of cheap Asian garments has flooded the domestic market, wiping out a large part of the domestic garment industry (Chinchilla & Hamilton, 1994; Dussel Peters et al., 1997; Dussel Peters, 1997a; Barrón & Hernandez, 1996). Second and more importantly in this context, export-oriented production grew and more than compensated for the losses in the domestic market segment. Export opportunities were opened up by the combination of the US 807 Program and the Mexican maquiladora provisions in the 1960s, and such opportunities continue to exist and have in fact expanded over the course of time. In the beginning export production was mostly undertaken by newly established garment maquiladoras in the border region, which emerged in isolation from – in terms of geographical location as well as business linkages – the domestic market manufacturers. Despite efforts to stimulate cooperation between domestic market SMEs to jointly engage in export in the form of empresas integradoras, only a small part of the domestic-oriented industry switched to export (Barrón & Hernandez, 1996; Ramirez, 1997). Starting in the mid 1980s, new garment maquiladoras began to be established also in central and southern Mexican states. Between 1986 and 1991, employment in garment maquiladoras grew from 25,300 to 45,000
workers (OTA, 1992). But the real growth spurt came after the passage of NAFTA: in 2000 there were 286,600 apparel workers employed in 1,120 apparel maquiladoras, up from 66,000 in 400 in 1993 (INEGI, 2001). Garment employment in domestic factories, not operating under the maquiladora program overtook maquiladora employment, leading to a impressive overall growth in garment employment in Mexico (see Figure 3.2).

Some of the more dramatic changes to have affected the Mexican garment industry have occurred since 1994. In that year, NAFTA liberalisation and the sharp devaluation of the Mexican peso further benefited the Mexican export sector by liberalising Mexico’s access to the US market and lowering the cost of Mexican export goods. Export-oriented growth of the Mexican manufacturing sector accelerated (see Figure 3.2 and Table 3.3) as both domestic firms and FDI, from within and outside the NAFTA area, expanded.

NAFTA boosted Mexico’s industrial sector, but strictly along the lines of the main features of the export sector and quite separately from domestic market production. FDI remains highly important, and instead of exporting finished goods, Mexico exports remain linked into intra-industry trade flows (Dussel Peters, 1995; WTO, 2000; see also section 1.2). For the garment industry, this is shown in the growth of maquiladora production in Table 3.3. Also, the country’s orientation towards the US is great and has remained highly concentrated in only a few sectors, of which garments, electronics and the automotive sectors are the most important ones. The garment industry’s narrow orientation towards the US market has diminished somewhat but remains extremely high – so much so that within a very short period of time Mexico displaced Hong Kong and caught up with China as important supplier to the US (US Major Shippers Report, 2002; see also Table 3.1). This is a remarkable achievement, especially because Mexico only competes in the US market in a narrow range of product segments. Like a few Central American and CBI countries, Mexico chiefly produces garments in the mass-produced, standardised

![Figure 3.2: Garment employment in the US and Mexico, 1988-2000 (x 1,000)](image-url)
segment of the market, its main export products being cotton trousers, knit tee-shirts and sweaters (Ram Khanna, 1996; Ram Khanna et al., 1997; Dussel Peters, 1997b; US Major Shippers Report, 2002).

The second map in Figure 3.1 illustrates the overall growth of employment in wearing apparel and its locational pattern for the mid 1990s, when export production was on the rise. Domestic market production had declined but what remains was still concentrated in the central states and still revolved largely around *piratería* (cheap brand rip-offs), *tianguis* (street markets) and informal retailing channels. Export production has dispersed from the major border cities in the northern states, where it was concentrated during the 1980s, to more central and even southern locations. The state-level data used in Figure 3.1 obscures the industry’s localisation or geographical concentration tendency. Nowadays, several sizeable garment clusters are scattered throughout Mexico and most of these clusters have specialised in one of a few specific types of garments. Examples of large Mexican garment clusters include:

- Aguascalientes, that has a long tradition in sewing apparel. In former days, household linens and embroidered apparel for the domestic market were its main products, but nowadays clothing like uniforms, jeans and tee-shirts is also produced for the domestic as well as the export market.
- The garment cluster in and around Mérida in the state of Yucatán is one of the fastest growing clusters of Mexico. It has attracted much foreign investment of factories that produce a wide variety of garments for export to the US.
- The development of the garment clusters in Puebla/Tehuacan, just south-east of Mexico City, was initially closely linked to the textile industry in Puebla. Most garments were destined for the domestic market. In recent years, nearby Tehuacan has displayed a particularly dynamic development, based on the production of jeans for export to the US.
- The garment cluster in La Laguna, that is object of this study, has a similar orientation: it has produced pants for several decades, but its recent boom is based on the production of jeans for the US. Of all these garment clusters, La Laguna has grown particularly fast; its proximity to the US-Mexico border, among other factors, appears have stimulated its extraordinary growth (see Chapter 4 and onwards).

### Table 3.3: Basic indicators of the Mexican garment industry, 1994-2000

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</thead>
<tbody>
<tr>
<td>VA 1993*</td>
<td>7,569,954</td>
<td>7,103,426</td>
<td>8,294,690</td>
<td>8,964,343</td>
<td>9,371,015</td>
<td>9,921,480</td>
<td>10,431,389</td>
<td>138</td>
</tr>
<tr>
<td>maquila</td>
<td>829,927</td>
<td>1,156,361</td>
<td>1,666,881</td>
<td>2,112,052</td>
<td>2,478,465</td>
<td>2,970,709</td>
<td>3,385,745</td>
<td>408</td>
</tr>
<tr>
<td>Output</td>
<td>20,574,385</td>
<td>20,486,101</td>
<td>24,619,379</td>
<td>27,597,017</td>
<td>30,574,267</td>
<td>33,388,792</td>
<td>35,889,028</td>
<td>174</td>
</tr>
<tr>
<td>maquila</td>
<td>3,765,157</td>
<td>5,807,071</td>
<td>8,198,436</td>
<td>10,519,556</td>
<td>13,331,487</td>
<td>15,945,777</td>
<td>18,140,497</td>
<td>482</td>
</tr>
<tr>
<td>Export*</td>
<td>3,692,271</td>
<td>10,283,057</td>
<td>17,352,967</td>
<td>26,810,244</td>
<td>36,672,922</td>
<td>42,851,644</td>
<td>48,957,852</td>
<td>1,326</td>
</tr>
</tbody>
</table>

<p>| | | | | | | | | |</p>
<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>% total exp.</td>
<td>5.3</td>
<td>6.2</td>
<td>6.6</td>
<td>8.0</td>
<td>8.4</td>
<td>8.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% total exp. to US</td>
<td>98.5</td>
<td>98.1</td>
<td>97.5</td>
<td>97.0</td>
<td>97.4</td>
<td>96.9</td>
<td>96.5</td>
<td></td>
</tr>
</tbody>
</table>

Source: INEGI, 2000, 2001
* Values are in Mx. Pesos x 1,000 and in constant 1993 prices.
All the booming garment regions are located in the wage zone C, the lowest wage zone in Mexico, which demonstrates the continuing relevance of NIDL consideration in the relocation process in garments. Interestingly, the frequent, detailed and direct involvement of the Mexican state in the national wage rate system is an exception in an otherwise largely liberalised policy environment with little or no state interference.

3.3.1 The Mexican liberalisation model

During the second half of the twentieth century, economic policy in Mexico underwent some far-reaching shifts, changing it from one of the most protected into one of the most open economies (Dussel Peters, 2000; Bair & Gereffi, 2002). For three decades, from 1940 to 1970, the Mexican economy achieved high economic growth rates based on import substitution industrialisation (ISI) policies and closing off its large domestic market to imports. Within this ISI policy environment, the initiation in 1964 of the Programa de Industrialización Fronteriza (PIF) may appear somewhat odd, as it aimed to stimulate export industrialisation. Through PIF the Mexican government aimed to fight unemployment and stimulate the industrialisation of the northern border region through FDI in the form of the maquiladoras. Under this program, maquiladoras paid no duties on imported components under the condition that products were exported after assembly and not sold on the Mexican market. As mentioned, PIF tied in directly with the US 807/807A Programs. Within the ISI policy environment the assembly maquila plants in the northern Mexican border region were an isolated exception.

While isolated maquiladoras thrived on export assembly, the Mexican economy as a whole began to stagnate during the 1970s as the limitations of ISI-based growth were reached (Valdes-Ugalde, 1995; Chinchilla & Hamilton, 1994; Dussel Peters, 1997a, 2000). Under ISI, for decades the private sector had relied heavily on support, subsidies and imported intermediate and capital goods, and this had resulted in large trade deficits. The stagnation of the economy provoked a radical shift in policy perspective and a new period of export-oriented industrialisation (EOI) set in. Notwithstanding the maquila experiment with exports, the EOI and liberalisation policies that have taken shape since the second half of the 1980s constitute a near 180 degree policy change. Whereas the export-oriented maquiladoras had long operated in isolation from the rest of the economy, they now became the role model for the new liberalised Mexican economy. Pressured by international institutions such as IMF and the World Bank and driven by personal and scholarly conviction, President Miguel de la Madrid (1982-1988) initiated the drastic restructuring of the economy, the final contours of which were drawn by Salinas de Gortari (1988-1994). This model was continued by Zedillo (1994-2000), and still continues today. The success of the East Asian NICs was commonly quoted as evidence for the rationale behind EOI. While, as discussed in Box 1.1, EOI in most East Asian countries involved highly interventionist states (Dussel Peters, 2000; Smakman, forthcoming), its implementation in Latin America prescribed a retreat of the state. The Mexican case is no exception: in Mexico, EOI implied far-reaching liberalisation, calling for a radical remodelling of the relationship between the state and the market. In essence, the role of the Mexican state was to take care of stable and beneficial macro-economic conditions. State interventions through industrial or social policies were abandoned. The traditionally strong position of labour in Mexico has become eroded under liberalisation (Valdes-Ugalde, 1995; Chinchilla & Hamilton, 1994; Dussel Peters, 2000).
In the liberalisation model the world market is taken as a point of reference for firms, industries and other economic units. The main trading partner and market for Mexico was (and still is) the US, which accounted for two-thirds of Mexico’s imports and exports. By extension, the foreseen growth in export activities was to be destined to the US. Therefore, President Salinas de Gortari pushed the negotiations for Mexico’s participation in NAFTA as a means to consolidate the liberalisation reforms and cement a strong link between the Mexican and the US economy.

The Mexican liberalisation model assumes a causal relationship between macro-economic stability, export growth and economic development (Dussel Peters, 2000). Issues such as employment, real wages, income distribution, savings and investment are placed outside the brackets of this model. With regard to the industrial sector there has been little aid or support for companies or industries that have to compete on the open market. Industrial policy is either non-existent or neutral and horizontal, because perfect competition and market forces are believed to automatically lead to industrial development. Interestingly, in this liberalised environment a few exemption programs for temporary imports and subsequent export remained (see Box 3.1). However, most other firm- and sector-level industrial policies were abolished. The traditional development banks Banco de Comercio Exterior (Bancomext) and Nacional Financiera (NAFIN), that used to finance firm and sector projects according to strategic government plans, started to offer financing under market conditions, viz. commercial interest rates (Dussel Peters, 2000; Bancomext, 1999). By the turn of the century, most remaining federal programs were providing information or matchmaking services to potential foreign investors and aiming at attracting FDI and other business opportunities.

### Box 3.2: Export promotion programs

1. The Program of Export Maquilas (Programa de Maquila de Exportación) was initiated in 1965. It allowed exporters to temporarily import goods (material inputs, components, machinery) necessary for the alteration or repair of products, as well as for services required for the export process. Such goods could enter free of duty and no value-added taxes were levied. By the end of the 1990s, nearly 50% of all Mexican exports were exported under this program.

   In order to allow Mexican companies to compete under the same conditions as the maquiladoras – that were mostly foreign-owned –, two additional programs were developed when export oriented industrialisation became the new model for economic growth in Mexico in the late 1980s:

2. The Program for Temporary Imports to Produce Export Products (Programa de Importación Temporal para Producir Artículos de Exportación, PITEX) was established in 1985. It allowed the temporary import of different goods, free of tariffs and value-added taxes for the elaboration of exports.

3. The Program for Firms Highly Involved in Exports (Empresas Altamente Exportadoras, ALTEX) was established in 1986. It applied to firms that either exported directly $2 million or 40% of their total sales or indirectly 50% of their total sales of Mexican products. The program provided fiscal and administrative benefits such as the rapid repayment of value-added taxes (Dussel Peters, 2000).

In 2001, all three programs were ended and all Mexican companies now have to compete under the same liberalised conditions.
With regard to the garment industry, the liberalised policy environment in Mexico has generated a large influx of FDI. The largest investor by far is the US, but companies from Hong Kong and especially South Korea also use investments in Mexico as a springboard to the US market (INEGI, 2001; Green, 1998; Mandelbaum, 1992; Rees et al., 1997). Even EU companies that want to secure their position in the US market are locating some production in Mexico (Glasmeier et al., 1993). Others, such as C&A, are moving in to target the Mexican market. Within the Mexican liberalisation model, the bi-national networks centred on these foreign investors and other US buyers have become the main engine for enhancing the international competitiveness of the Mexican garment industry. By extension, the scope for targeted state policies and intervention is greatly reduced as garment buyers and their networks are allowed great freedom of operation in Mexico but are no longer contained within the country. The concrete developmental outcome of Mexico’s industrialisation process depends on local, endogenous conditions and capabilities (see Chapter 6), but also – and maybe especially so – on the competitiveness and organisation of bi-national production networks and the position of Mexican firms and workers therein. In fact, as pointed out by Woodruff (1998) for the case of shoe manufacturing, the enhanced power of buyers in the liberalised environment may weaken the position of local Mexican manufacturers. General hypotheses with regard to bi-national networks of buyers and shifts in the bi-national value chain will be discussed in the following sections (see also Gereffi et al., 2002a).

3.4 Towards a US-Mexican division of labour

The development of the garment industry in the US and Mexico over the last decades of the twentieth century shows more than decline in the US and growth in Mexico. Potential complementarities can also be identified, on the basis of which the integration of the two national industries may be shaped. The growth of US-Mexico garment trade flows and the geographical patterns of garment production in both countries are illustrative of a tightening US-Mexico wearing apparel connection. The image that emerges from books and articles in industrial magazines on US-Mexico garment relations is one of a united Western hemisphere front (Twin Plant News, 1999; Gereffi et al., 2002a). The pivotal role of Mexico within this Western hemisphere division of labour is hardly contested. As will be shown in this section, through progressive reconfiguration of the US garment value chain, a US-Mexican bi-national division of labour has effectively come into existence (see also van Dooren & Verkoren, 1998). In it, Mexico’s role is extending, especially since NAFTA liberalisation set in. In other words, initially Mexico took care of the assembly activities that were also undertaken in the southern US including El Paso, but increasingly it is moving beyond pure assembly to CMT or even more production activities. To a large extent the consecutive reconfiguration phases were based on regulative steering on behalf of US policy makers. However, US buyers in their role as lead firms coordinate and control the value chain, making their strategies of decisive importance for the materialisation of actual patterns. In the last section of this chapter, the structure of their production networks that underpin the bi-national division of labour, and shifts therein, will be examined.

3.4.1 US-Mexican garment networks

NAFTA was designed to create a Western hemisphere garment production front and indeed many US buyers have seized the opportunity to annex their Mexican contractors to their competitive strategies. In doing so they build on the history of US-Mexican intra-industry or
production-sharing trade outlined in sections 3.2 and 3.3, and exploit the complementarities of the two national industries along the value chain.

Table 3.4 provides an overview of the various responsibilities or roles played by different types of actors in garment production networks. In the table, the most important types of firms are linked to the productive activities commonly undertaken by them, in order to position them within the value chain. As the nomenclature used in garment studies varies considerably, other names are included as are concrete examples of the various types of firms relevant to the US-Mexico case. The scale of operation of firms decreases and fragmentation, competition and subordination increase as one moves down Table 3.4. As US buyers manage massive volumes of garments of all sorts, their production networks are very large and often also diverse in structure. They may or may not include all actors in the table. Table 3.4 distinguishes between buyers whose roots and competitive strength lie in retailing and buyers with a manufacturing background, since these roots are thought to still be reflected in the productive role they assume in US-Mexican networks (Gereffi, 1997; see Chapter 7). At the same time, hybridisation (see section 1.1.2) and strategic convergence are recognised. The Arrow indicates the convergence between these two in terms of their roles: manufacturers are becoming more involved in retailing, while many retailers are increasingly engaging themselves with product strategy and definition. Similar processes apply to the other types of garment firms. In general, extending the command over the value chain is commonly seen as a viable way to improve a

Table 3.4: Roles of garment actors in US-Mexican garment production networks

<table>
<thead>
<tr>
<th>Firm type</th>
<th>Example</th>
<th>Other names</th>
<th>Scope of activities/roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer-retailer</td>
<td></td>
<td>Retailer</td>
<td>Sales Marketing</td>
</tr>
<tr>
<td>• Department store</td>
<td>JC Penney</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Discounters</td>
<td>Target, WalMart</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Marketer</td>
<td>Gap, The Limited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Catalogue</td>
<td>Delia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buyer-branded manufacturer</td>
<td>Levi Strauss</td>
<td></td>
<td>Product strategy</td>
</tr>
<tr>
<td></td>
<td>VF Corporation</td>
<td></td>
<td>Product definition</td>
</tr>
<tr>
<td></td>
<td>Sara Lee</td>
<td></td>
<td>Product design</td>
</tr>
<tr>
<td></td>
<td>Phillips-van Heusen</td>
<td></td>
<td>Manufacturing (coordination)</td>
</tr>
<tr>
<td>Trading agent</td>
<td>Li &amp; Fung</td>
<td>Supply chain integrator</td>
<td>Coordination of all</td>
</tr>
<tr>
<td></td>
<td>Mast Industries</td>
<td>Buying office</td>
<td>supply chain activities</td>
</tr>
<tr>
<td></td>
<td>Aztex</td>
<td>Broker</td>
<td>Administrative red tape</td>
</tr>
<tr>
<td></td>
<td>Kellwood</td>
<td>Vendors</td>
<td>Logistics</td>
</tr>
<tr>
<td>Full-package supplier</td>
<td>Flynn</td>
<td>Jobber</td>
<td>Product manufacturing (coordination)</td>
</tr>
<tr>
<td></td>
<td>Sun Apparel</td>
<td>OEM supplier</td>
<td>Process R&amp;D</td>
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<tr>
<td></td>
<td>Frederick Atkins</td>
<td>Core supplier</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aalfs</td>
<td>Favoured supplier</td>
<td></td>
</tr>
<tr>
<td>Subcontractor</td>
<td>Second-tier supplier</td>
<td>Discrete elements of production process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assembler</td>
<td></td>
<td></td>
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</tbody>
</table>

Source: adapted from Sturgeon (2001, p. 16)
manufacturer’s competitive position. As a consequence, productive responsibilities or command over individual nodes of the value chain is not a static given nor can it be taken for granted. For example, highly capable suppliers may want to take logistics and administration into their own hands, trading agents may be tempted to invest in manufacturing capabilities, and assemblers may push to become CMT or even full-package suppliers. Moreover, firms may be incorporated into various production networks at the same time and they can occupy different positions or perform different functions in each network.

The various types of actors as well as their role – or, in other words, their position within the value chain – may affect not only the structure of the production network, but also the nature of the network relations and even the upgrading potential for local manufacturers. In this respect, most recent literature on US-Mexican garment networks has used the Asian success stories of sustained export positions to compare and contrast the insertion of Mexican and Asian suppliers in export networks. A point emphasised in this literature is the fact that for decades Mexican garment exports have been channelled through manufacturer-centred networks, whereas Asian participation in garment export has always been mostly associated with sourcing strategies of Western retailers and marketers. The significance of the distinction between the two is based on the general differences between their networks and the role typically played by LMIC suppliers incorporated in them (Gereffi, 1999; Bair & Gereffi, 2002). In this view, branded manufacturers are associated with production-sharing arrangements in which the Mexican maquiladoras play a central, assembly role. Retailers source full packages, mostly from Asia and are only just beginning to become involved in Mexico. A shift from manufacturer-centred to retailer-centred networks may be vital for the upgrading of the Mexican garment industry to upgrade from a pure assembly role to full-package/OEM production (see also Table 3.4 and Chapter 1).

Manufacturer-centred networks

The internationalisation strategies of branded manufacturers may be two-pronged: FDI facilities as well as international sourcing arrangements may play important and complementary roles. In the Mexican context, garment FDI facilities traditionally followed the typical maquiladora model: the wholly-owned maquiladora’s sole responsibility is assembly, it is firmly embedded and subordinated to corporate strategies, and linkages to the local Mexican economy are limited. In these arrangements, manufacturers commonly supply their maquila facility with the material inputs – including, in many cases, cut fabric – needed for the assembly of their garments. Global garment manufacturers such as the VF Corporation, Fruit of the Loom and Sara Lee as well as large textile mills including Cone Mills, Guilford and Burlington have built FDI or joint-venture facilities in Mexico.

Alternatively – but in most cases complementary to FDI – Western manufacturers engage in globalisation through sourcing networks based on production-sharing arrangements with contractors in nearby LMICs (Scheffer, 1992; Bair & Gereffi, 2002). In Mexico, local contractors commonly work also under the maquila or similar programs and their activities for US manufacturers are limited to assembly. In manufacturer-centred networks, local factories most commonly engage in industrial subcontracting (see section 1.1.2). Large branded manufacturers use industrial subcontracting as a strategy to complement FDI, but smaller manufacturers have also developed industrial subcontracting linkages to contractors in Mexico. Manufacturers require only limited, assembly expertise from their suppliers.
Box 3.3: The strategies of branded manufacturers: the all-American blue jeans

Jeans being ‘quintessentially American’, it may hardly be a surprise that until recently the bulk of basic 5-pocket jeans were still being produced in the US. Especially traditional branded manufacturers such as Levi Strauss, the former Blue Bell Manufacturing and the VF Corporation had their production base in US states such as Oklahoma, Alabama, Virginia and Texas. Most of these jeans had ‘Made in America’ labels and this was worth something. It was literally worth something: in certain markets – most notably Japan – ‘Made in America’ jeans retailed at a higher price than the same jeans manufactured elsewhere. In addition, since the mid 1980s and sparked by Wal-Mart’s ‘Buy American’ program, in the US market ‘Made in America’ also began to be valued by the public, though it was not rewarded with higher prices.

This trend gave traditional jeans-cities such as El Paso hope for survival (van Dooren & van der Waarden, 1997; Spener, 2002). If nationalist sentiments had an impact on consumption patterns, competition in jeans would not only depend on production cost. A market niche for American jeans could remain and this could be filled by manufacturers in El Paso. However, during the second half of the 1990s an entirely different scenario developed: new players, especially retailers and marketers, were entering the jeans scene and fashion elements were being introduced. As a result, standardised 5-pocket jeans, and the branded manufacturers behind them, lost market share and the latter were forced to reorient their business strategies. Generally, they began to place greater emphasis on retailing rather than on manufacturing. Also, an increase in offshore production is evident in the strategies of jeans firms. The latter happened at the expense of the traditional production locations in the US. For example, in April 2002, Levi Strauss announced the closure of six of its remaining eight US-based production facilities. The company’s CEO Philip Marineau explained the business strategy behind this decision: ‘This is a painful but necessary decision. There is no question we must move away from owned-and-operated plants in the US to remain competitive in our industry [...] Outsourcing production supports a more variable cost structure, helps us maintain strong margins and enables us to invest more resources in product, marketing and retail initiatives.’ (Company Press Release, April 8, 2002).

Similar considerations may explain the recent announcement by VF Corporation that after a comparatively long and stable presence in El Paso the company is closing several plants in the border city and laying off approximately 1,200 workers (El Paso Times, 2002). Rather than shifting production to offshore contractors as Levi Strauss does, VF Corporation has relocated its production to offshore owned-and-operated factories as well as to contractors, many of which are located in Mexico. These are just two examples of a more general shift of the garment production base of US manufacturers out of the US to offshore production locations. Though a wide range of relocation options exists (see section 1.2), since the passage of NAFTA, relocation – certainly in the jeans segment – is commonly contained within the NAFTA area and entails a build-up of sewing capacity in Mexico. As an illustration of the patterns discussed above, Figure 3 contrasts the North American production base of a large US jeans manufacturer in the early 1990s with the situation after the turn of the century.

The maps clearly provide a dramatic illustration of plant closures in the US and new establishments in Mexico. A more detailed look also reveals the importance of production-sharing arrangements...
Figure 3.3: The production locations of a branded jeans manufacturer, 1990 and 2003
Conversely, knowledge transmitted from manufacturers to suppliers is largely limited to manufacturing processes.

Though NAFTA liberalisation has removed all pre-existing disincentives working against integration of the production process in Mexico, production-sharing arrangements remain important. Mexico still is a large CMT base reliant on US and other imported apparel (Speer, 2001b; see also Table 3.2). The continuing importance of production sharing is also illustrated by the rapid growth of garment production on the Yucatán peninsula and in other southern states such as Oaxaca and Campeche. There, garment maquiladores are responsible for a significant share of total garment production. They operate largely in isolation from their local business environments and their success appears primarily based on their low labour costs, and in the case of Yucatán their proximity to the US. The centre of gravity of garment production as well as of maquiladores is shifting to the southern states of Mexico, where labour reserves are larger but above all, cheaper.

As a complement to Box 1.1 on the sales and marketing strategies of blue jeans manufacturers, Box 3.2 deals with the production and relocation strategies of the main blue-jeans manufacturers in the US and Mexico.

Retailer-centred networks
Traditionally, retailers and marketers have sourced full packages – through commercial subcontracting arrangements- from Asian suppliers (Gereffi, 1999), mainly because the cost but also the service suited their needs. With no or only very limited manufacturing capabilities, they relied on suppliers to take care of the entire manufacturing process. Recently, NAFTA paved the way for a more all-round involvement of Mexican manufacturers in the production process of garments for export to the US. As Mexican suppliers are trying to ‘bring the package together’ and are developing the necessary logistical know-how, they are increasingly able to supply retailers. For US retailers, sourcing from Mexico is attractive: it is more expensive than many Asian sources, but lead times can be much shorter – and this is an important consideration in today’s garment market (see Chapter 1).

For Mexican garment contractors it may be of vital importance to be able to supply retailers: not only has the retailing revolution made them very powerful lead firms, they also put particular emphasis on streamlining and shortening the supply chain through the application of electronic data interchange (EDI) technology as well as relocating production in an effort to reduce transportation time. The shift from manufacturer-centred to retailer-centred networks is thought to provide a strong and essential upgrading stimulus for the Mexican garment industry. Mexican manufacturers need to develop strong capabilities in non-assembly nodes of the garment value chain; they also need to develop the logistical know-how to fully exploit their geographical proximity to the US by guaranteeing flexibility and short lead times.

...
The power of US retailers over Mexican manufacturers reaches beyond their dominant position on the US market: US buyers are also getting involved in the development of marketing channels to market their products in Mexico. The Mexican domestic market remains highly fragmented and the purchasing power of large parts of the populations is limited. The retail channels catering to middle and higher incomes were for a long time underdeveloped, but are now being strengthened by US chains and strategic alliances with US retailers and US-Mexican joint ventures (Harris, 1995; Mendoza et al., 2002). Many flourishing large-scale retail chains in Mexico have a US component. The strong position of Wal-Mart in Mexico is a clear example of this trend: it has over 600 stores in Mexico. Many Dillards and JC Penney stores are also being opened. Consequently, Mexican manufacturers wanting to sell quality garments on the Mexican markets may also increasingly have to deal with US retailers and their standards.

Figure 3.4 provides a schematic illustration of US-Mexican garment production networks, centred on branded manufacturers and retailers.

Upgrading
In GVC terms, industrial upgrading in local or national economies requires a shift from the simple assembly of imported inputs to full-package production. In fact, based primarily on developments in the Asian electronics and automotive industries, Gereffi (1999) suggests that upgrading in the garment industry may even lead to original brand production (OBM) by LMIC firms.

Currently, Mexico is in a unique position in the early stages of the upgrading pathway that was all of a sudden opened by NAFTA. Also, this process is sparked and driven by the involvement of new types of lead firms in the Mexican garment scene. Thus, full-package production in Mexico is seen as an almost inevitable outcome of the combination of trade liberalisation under NAFTA and the rise of US retailer-centred production networks.

![Figure 3.4: US-Mexican garment production networks](image-url)
According to Gereffi (2000):

‘In this buyer-driven commodity chain, local firms develop the commercial ties with foreign buyers needed to move from the maquiladora system of low-wage assembly based in imported inputs to the ‘package supplier’, specification contracting role typical of the East Asian apparel exporters.’

Figure 3.5: Reconfiguration phases in the US-Mexico garment value chain

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(figure continued on next page)
In assigning a determinant role to vertical linkages with foreign buyers and the strategies of these buyers, the GVC perspective appears to downplay the role of local contractors and the local business environment in the upgrading process. This appears to be a somewhat simplified picture of a one-way, top-down process, an issue that will be further examined in Chapter 8.

(Figure 3.5 continued)
Many questions with regard to the incentives, driving forces and dynamics behind this transition as well as the underlying upgrading process remain unanswered. One of the most interesting questions is related to the origins and aim of the transition: is the upgrading process part of the strategic vision of Mexican entrepreneurs, or is it steered or even forced by US buyers? Especially issues with regard to the interplay between local industry dynamics and industrial trends at higher levels of scale need to be investigated.

### 3.4.2 Reconfiguring the bi-national value chain

NAFTA phased out pre-existing trade restrictions and first eliminated penalties on finishing and later also on cutting in Mexico. For the garment industry NAFTA gradually opened up opportunities for more all-round and even full-package apparel production in Mexico for the US market. This has created opportunities for a step-by-step reconfiguration of the bi-national value chain, broadly along the lines as proposed by van Dooren and Verkoren (1998; see Figures 3.5). Alternatively, Gereffi and Martínez (2000) have argued that the shifting bi-national division of labour in garment production is largely based on the different competences of the two nations in the garment value chain. Figures 3.5a-d combines a simplified version of the production column as introduced in Chapter 1 and projects it on the US and Mexico in order to sketch the gradual geographical reconfiguring process of the value chain. Figure 3.5a depicts the situation in the early twentieth century, when garment manufacturing was still concentrated in the Northeast of the US. In Figure 3.5b shows the national division of labour in the mid twentieth century, when in jeans production the assembly and finishing/laundry had been shifted to the southern states. The shift to Mexico at the time of the passage of NAFTA is illustrated in 3.5c. With the complete liberalisation of US-Mexican garment trade, the entire manufacturing process may be shifted from the US to Mexico, as depicted in Figure 3.5d.

There is much recent literature on Mexico’s potential to produce full packages for the US market. This development is widely applauded because the potential benefits of full-package production may include a higher degree of integration between production activities within the local economies of the Mexican production clusters, an increase in the local value added and potentially a more potent lever for further economic development (Gereffi & Bair, 1998, 2001; Gereffi & Martínez, 2000).

### 3.5 Conclusion

There is an increasingly strong link between the US and the Mexican garment industries. This link and its impact on the Mexican garment industry cannot be understood in isolation from policy changes – most notably those in the direction of free trade between the two countries as well as the so-called liberalisation of the Mexican economy – that have taken effect since the late 1980s. This chapter considered the development of both industries and the way they have become functionally linked. This conclusion concentrates primarily on the Mexican side of the bi-national linkages between the two industries.

Until a decade ago, linkages between the US and Mexican garment industries were built on production sharing principles, as regulated by the 807 Program. Within this framework, the historically grown national division of labour in the standardised mass-produced segment of the US garment industry internationalised by shifting assembly activities to Mexico and the CBI. Production sharing gave the standardised segment of the US industry breathing space by allowing it to capitalise on the low wages in the CBI and Mexico to improve the efficiency of its
international system of integrated production. For Mexico and the Caribbean countries, where garment assembly was carried out, the arrangement had the effect of truncating the industrialisation process. The assembly factories in these countries were firmly embedded in the corporate competitive strategies of US garment firms, but did not have linkages to the local industry nor did they otherwise stimulate the local industrialisation process. This is also noted by Chinchilla and Hamilton (1994, p. 293):

‘... global changes in the garment industry, economic crisis and restructuring have combined to increase the international integration of Mexico’s garment industry, to weaken its domestic integration, and to deepen the division between those sectors linked to international markets and inputs and those dependent on domestic textiles and consumers.’

While this pattern remains unchanged for the US-CBI connection – until now they have only obtained a weak version of NAFTA-like trade liberalisation (see also Mortimore, 1999, 2002; Mathews, 2002) – the tables have turned for the US and Mexican garment industries with the passage of NAFTA.

As NAFTA eliminated all pre-existing trade limitations, a dramatic boom in Mexican garment production for export was matched by a collapse of the US manufacturing base, especially in the southern US. The impact of NAFTA was all the more dramatic because it was paralleled by far-reaching liberalisation of the Mexican economy, aimed at optimizing growth through export-oriented industrialisation. Initially, the opening up of the Mexican economy and the subsequent sudden confrontation with highly competitive Asian imports during the late 1980s largely reduced domestic market production to counterfeits and cheap, low-quality garments. It almost completely eliminated domestic market production as a viable alternative to export production. On the other hand, trade liberalisation did have the hoped for effect of attracting FDI and bringing new buyers and their networks to Mexico, which caused a huge export-based boom in the industry.

What does this mean for Mexico in terms of development and strategies? Undoubtedly, NAFTA represents a significant improvement over the former pure-assembly-based pattern by paving the road for local integration of the manufacturing process. This is necessary for the development of full-package capabilities. However, the severing of the link with the traditional domestic market and its producers have made Mexican exporters highly dependent on US buyers for practical and strategic know-how. Instead of the external projection of a successful bottom-up industrialisation process Mexico’s current development is an extension and broadening of the externally driven production-sharing model. Evidence for this is that the garment export sector in Mexico displays many of the characteristics of the southern US standardised, mass-production model.

Gaps in the Mexican garment value chain – especially in high value-added, capital-intensive retailing and textiles, the filling of which was discouraged in the production-sharing era – are now being filled by US TNCs. Such complementarity in the US and Mexican value chains may be a solid basis for the formation of a competitive front against Asian import penetration. However, the terms for this development are set by US TNCs and the effects on the Mexican garment industry are unclear. It may cause, as is suggested by some strands of literature on economic integration and trade blocks (Cable & Henderson, 1994), a lock-in, in a subordinate position, of Mexican producers, industries and the Mexican economy in general. In the context
of the liberalised Mexican economy the course of the industry is now being shaped by US buyers and their bi-national networks. As there is minimal or no strategic steering or other direct involvement of the Mexican government through industrial policy, such potentially unwanted developmental outcomes are not being corrected.

On the other hand, linkages to new types of US buyers introduce important upgrading stimuli and learning opportunities, knowledge and information. These opportunities need to be seized in order to avoid a fate such as that encountered by El Pasoan manufacturers. El Paso and the dramatic crumbling of its status as Jeans Capital of the World illustrate the potential detrimental effects of depending on the vicissitudes of the global strategies of US buyers. It also shows the problems of predicting the outcomes of industrial processes. Not long ago, the southern US and northern Mexico were predicted to benefit from a tightening garment connection based on Mexican full-package production under NAFTA. Southern Mexico was thought to be left out (Gereffi, 2000, 1997). In actual fact, a large part of the southern manufacturing base in the US has disappeared, while Yucatán and Campeche are amongst the most dynamic states in terms of employment creation in garment production. The fact that the latter is largely based on pure assembly within production-sharing arrangements illustrates that upgrading and full-package production in Mexico is not inevitable, certainly not in the short term. Also, in the NAFTA area, part of the industry is taking the low road to competitiveness based on lowering labour cost.

Recent analyses of the US-Mexican garment connection and bi-national production networks have departed mostly from a GVC perspective, emphasising the vertical linkages between US buyers and Mexican garment contractors and the upgrading impetus that emanates from such linkages. Ultimately the results of the tightening garment connection between the US and Mexico will also depend on the business climate and attitude and on the local economy of the regions in Mexico where garment production is concentrated. Chapter 6 will deal with these aspects for the Laguna region.

Notes
1 Canada is also part of NAFTA. The Canadian garment industry will not be analysed in detail here. Canada exports apparel and especially textiles (for household and industrial products) to the US, but is not in direct competition with Mexico as its exports are not concentrated in the product niche ‘basic wearing apparel’, as is the case for Mexico.
2 Early disintegration is reflected in a predominance of small- and medium-sized enterprises (SMEs) in apparel manufacturing in the US. The relatively small size of US apparel firms has hampered their modernisation (Glasseier et al., 1993). This has come clearly to the fore in recent years as innovations in the apparel industry are increasingly high tech and capital-intensive and beyond the reach of US apparel SMEs.
3 Not only low cost, non-unionised female labour in the South, but also pro-business state government attitudes – and thus favourable tax conditions, an improved transportation system, cheap land and the southward shift of the textile industry – exerted a southward pull on garment production during the mid twentieth century (Taplin, 1997; see also Wheeler, 1998).
4 Glasmeier et al. (1992) and Taplin (1997) note this dichotomy for the garment industry in the US. Massey (1984) points to a similar pattern in the UK, where family-owned and managed, conservative firms, often with strong local roots exist next to new and often larger garment businesses under modern management that operate unhindered by national borders, driving the globalisation of the industry. She appears to find this pattern characteristic of the garment industry in Europe and the US.
In all these measures, the ‘fibre-forward’ and ‘yarn-forward’ considerations apply. The main aim behind these measures is to prevent transhipment of Asian garments to the US through Mexico.

The Asian flood wave of cheap imports hit the Mexican market through direct imports from the Asian region but also through unexpected channels. For example, some of the clothing imports from the US were first imported from Asia, especially China, to be subsequently shipped to Mexico. In addition, traders in the informal market channels of tianguis and street vendors began to distribute Asian clothing bought principally in Los Angeles (Chinchilla & Hamilton, 1994).

The Mexican wage system stipulates the legal minimum wages per occupation for three geographically defined wage zones – A, B and C. The highest wages rates are set for zone A and the lowest for C. For example, in 2001 the minimum wage for a sewing operator was set at 52.05 pesos in zone A, compared to 46.30 pesos in zone C (INEGI, 2001).

Since the end of the 1960s the number of politicians with a background in economics has increased. For example, in the Salinas de Gortari government, the president himself and nine out of nineteen secretaries were economists; five of the latter had earned their degree in US institutions where export-orientated industrialisation was the conceptual mainstream (Dussel Peters, 2000).

Mexico’s competences are seen to be concentrated in the production of man-made fibres and in apparel manufacturing. The country’s retail sector is relatively weak and splintered, and the production of high-quality textiles in Mexico leaves much to be desired (Gereffi, 2000). By contrast, the US is believed to have competences all along the chain, but specifically in textiles and retailing. Thus the competence of the US and Mexico garment industries are complementary.