National histories of textiles tend to neglect the regional character of industrial production, which is always located in specific towns, industrial districts and regions. Studies of industrial relations with domestic as well as international locations incorporate these districts into a broader network. The size and character of these networks are not static but respond to economic cycles and social and political change. Another factor influencing the industrial landscape(s) is the extension of state territory and its borders.

In the time under consideration, the Habsburg Monarchy underwent significant territorial changes. Basically it consisted of the constitutive Austrian territories, the Archduchies of Lower and Upper Austria (in the following referred to as ‘Austrian Lands’), Inner Austria in the south (Styria, Carinthia, Carniola, Istria), Tyrol and the scattered territories of the Vorlande (Further Austria) in the west, and Bohemia, Moravia and Silesia (in the following referred to as ‘Bohemian Lands’) in the north. Except for a narrow region in western and northern Hungary, the majority of the Hungarian Kingdom was under Ottoman rule from 1526 until 1699. Repelling the Ottoman army, the imperial troops expanded the Habsburg possessions towards the European south-east, conquering Hungary and Transylvania in 1699 as well as Banat and western Serbia in 1718.

At the same time, Habsburg Austria made territorial acquisitions in western Europe in the wake of the War of Spanish Succession. While the Bourbons succeeded in conquering the Spanish Crown, the Habsburgs received the Spanish possessions in Europe outside the Iberian Peninsula, that is Naples and Sicily (until 1734), Lombardy and the southern Netherlands. Austrian ambitions to establish East Asian trade relations from Ostende and eventually build a small colonial empire overseas were thwarted by the Western Sea Powers’ veto. Moreover, England and France made their acceptance of a female successor to the Habsburg throne conditional
Map 3.1  The Habsburg Empire 1815–1918
on Austria’s renunciation of any trade activity from the Atlantic coast. Thus Maria Theresia (1740–1780) and Joseph II (1780–1790) could not make full profit from the southern Netherlands nor were they successful in integrating Lombardy – both regions were incorporated into Napoleonic France in 1797.

Being prevented from expanding westwards or to the Indian Ocean, the Habsburg rulers started to concentrate on territorial acquisitions in east and southeast Europe. After having lost Silesia to Prussia in 1742, they made territorial gains through the partition of Poland (Galicia), the conquest of Moldavia (Bukovina) and the Venetian heritage in Dalmatia, which they accepted in exchange for the southern Netherlands and the Vorlande. After 1815 the Habsburg borders saw only minor changes with the loss of Lombardy (1859) and Venetia (1866) and the occupation of Bosnia and Herzegovina (1878).

However, irrespective of the exact state borders at a given time, the Monarchy always encompassed a broad variety of regions differing in landscape, agricultural and civic constitution, nationality, religion, as well as economic assets and specialization. A first dividing line demarcated the provinces with a moderate feudal regime (*Rentengrundherrschaft*), which permitted peasants’ private agriculture, municipal autonomy and private industrial initiative, from those where the landed aristocracy exercised stronger power over its subjects (*Gutsherrschaft*). This line divided the Austrian Archduchies and the Alpine provinces from the eastern part of the empire with the Bohemian Lands representing a zone of transition. However, after the defeat of the Protestant provincial nobility in 1621 (Battle of the White Mountain), which set out to oppose re-Catholicization and absolutistic advances, Bohemian manorial estates came into the hands of nobles who were loyal to the Emperor. Their properties were bigger, the amount of land cultivated by the feudal lord was higher and they developed a special type of manorial industrial enterprise, based on coerced labour (*Wirtschaftsherrschaft*).

A second line separated the industrial provinces, which were situated in Lower and Upper Austria, Styria and the Bohemian Lands, from the agrarian provinces in the Alps, in Hungary and in the Carpathian and southern lands. Finally, a third line divided the territorial heartlands, characterized by a longer lasting affiliation to the Habsburg Empire, from marginal territories with only transitory status, such as the southern Netherlands, Lombardy and Venetia, and those old provinces which were lost to rival Empires, such as the Vorlande and Silesia.

Textile regions were primarily situated within the moderate feudal zones and the Bohemian transition zone and less so in the *Gutswirtschaft*-zone. Textiles were of major importance in the industrial parts of the country, especially in Lower and Upper Austria, in Bohemia, Moravia and Silesia, in Vorarlberg and the Vorlande. However, two of these more advanced textile centres, Silesia and the Vorlande, were lost in the eighteenth century. The most advanced textile regions were located in the transitory margins of the Monarchy, that is in the southern Netherlands and Lombardy-Venetia. While they belonged to Habsburg Austria, these regions played a crucial role in the transfer of know-how and skilled labour. Due to their innovative character, these lost and transitory provinces will be included in this
survey, while vast regions that were irrelevant for the production of textiles are excluded.

The textile regions in the Habsburg Empire were included in various networks of differing scale. Within and between neighbouring textile regions, we observe a significant specialization, which encouraged trade and enabled merchants and producers to exploit the different skills, qualities and costs. Furthermore, many merchants and putting-out agents (Verleger) came from outside these regions, incorporating them into networks of trade that facilitated a transregional division of labour. Until the Thirty Years’ War, Austrian and Bohemian textile regions had strong ties with the textile centres of western and southern Europe. However, their position was subordinate to Venetian, Dutch and German merchants who controlled export trade. At the same time as the heart of Europe moved from the centre of the continent to the north-western Atlantic coast, east central Europe was de-linked. As a consequence, regional markets and networks became more important than transregional ones, and trade relations oriented towards east and south-east Europe. However, it was the internal market, unified by the abolition of customs and duties during the eighteenth century, which absorbed the major share of the growing market production.

The variety of regional specialization in textiles affected a broad range of techniques and raw materials. Techniques included spinning and weaving, knitting, manufacturing of hosiery, lace-making, embroidery and so on. The main textile fibres were linen and wool from domestic production. Cotton only gained in significance when the Habsburg Monarchy reached a trade agreement with the Ottoman Empire following the Peace Treaty of Požarevac in 1718. Although the use of cotton rose quickly, it did not surpass linen as the basic textile fibre until the end of the Monarchy. Silk-weaving was an important industrial trade in Vienna, where the court was located. Propelled by the incorporation of Lombardy, a district of silk production, this branch came to dominate urban proto-industry in eighteenth- and early nineteenth-century Vienna.

While the manufacture system was flourishing in the Austrian and Bohemian Lands and – supported by Swiss putting-out capitalists – to a lesser extent in Vorarlberg, textile activities in the rest of Habsburg Austria are not worth mentioning. These vast territories had neither relevant central manufactories nor any significant proto-industrial districts. The Kingdom of Hungary was almost devoid of textile market production. Some of the non-textile regions were purely agricultural, eventually supplying the industrialized districts with food; others were sites of different branches, such as mining, iron or glass industries. Both served as an important market for the textiles produced in the Bohemian and Austrian Lands.

After the collapse of the Monarchy, the existing networks and the established division of labour were severely disturbed by the new national borders and the attempts of the successor states to sever the ties with Vienna, the former political

core. The surviving regional patterns of textile production were integrated into the economic landscape of the new nation-states and their international alliances. However, the textile geography developing in the interwar period hardly had any time to settle. From 1938 to 1945 it was again being re-shaped in line with the political interests and the military-industrial priorities of the Third Reich, which annexed Austria and subjected Bohemia and Moravia. After the Second World War Austria and Czechoslovakia joined two opposing projects of European economic integration, which for a long period disconnected the most developed and interlinked areas of the Habsburg Monarchy until they were to meet again as competitors on the world market in 1990.

The following chronological overview is guided by a periodization that combines territorial modifications, legal conditions and economic cycles with changes in technology, raw materials and the organization of production. One particular focus is on the specialization of and the division of labour between the different regions involved in the process. As will become apparent, each period was characterized by a specific spatial arrangement of interregional cooperation. Another focus is on the different types of labour and employment. Conceiving historical change in terms of inequality, unevenness and the contemporaneous overlapping of methods usually attributed to different eras, my explorations will reveal the simultaneity of different types of labour at a given moment rather than a chronological sequence of modes of production.

**Rural subsistence and urban crafts (1650–1720)**

In the period prior to 1720, two organizational forms of textile production prevailed. Wherever textile fibres, mostly flax but also wool, were locally available, homemade textiles, chiefly for direct consumption, were one of the pillars of the rural economy. Domestic producers also provided the yarn that the textile artisans used for their more sophisticated processing of linen and woollen cloth. Located in towns, the artisans organized in guilds. A significant number still had an agricultural base – especially in small rural towns. Apart from these two dominant forms, the Viennese court supported a considerable number of silk weavers producing luxury goods. Cotton, by contrast, played only a marginal role, when it was woven with linen warp (fustian). The fustian industry had reached a first peak in late medieval times, with a centre in Lombardy and southern Germany, from where it spread into Austria. However, it was largely abandoned when the Ottoman wars impeded cotton supply and transport. Trade with the Ottoman Empire was in the hands of Greek or Serbian merchants, Vienna serving as their emporium for central Europe.

Concentrated in the Austrian Archduchies and the Bohemian Lands, which joined the Habsburg Empire in 1526, rural crafts overwhelmingly produced for local and regional markets. Only very few locations, including the Mühlviertel as well as Jihlava and Liberec, specialized in export production of linen and draperies.
There were a broad variety of producers. The majority of work was done within rural households, usually on a seasonal basis, by those members who were qualified to do the work and were not needed elsewhere; spinning was mainly, but not exclusively, a female occupation; weaving was chiefly male; children and old people fully participated in the work process. Artisan households showed a more distinct gender division of labour. While men – masters, journeymen and apprentice boys – carried out the artisan tasks, the female members of the family took care of the house and the garden and prepared the food. However, they were also responsible for the administration and marketing of the trade. As the households accommodated work – professional as well as reproductive – and life under one roof, they included not only family members but also migrant artisans and seasonal workers. Although men usually headed these units, women could also be in charge of them under certain conditions.

Textile crafts were highly specialized. Depending on skills, workshop equipment and costs of material, income margins and social status differed. Besides different types of weaving, there were specific workshops for bleaching (linen), dyeing and fulling (woollen cloth). As water and water power were indispensable for their production, these workshops were usually located outside the urban centres along the rivers, often forming separate industrial districts. After the Thirty Years’ War, the nobility in the Austrian and Bohemian Lands invested in industrial sectors in order to make up for the loss of revenues and subjects. Apart from construction works, brewing and distilling, these aristocratic efforts targeted any trade that depended upon water access and water power. The resulting manorial workshops benefited greatly from the power the feudal lords exerted over their subjects – they could force them not only to work for them but also to buy their products – and therefore were a severe threat to private artisans as well as to municipal workshops. While in the Austrian Lands this type of manorial economy (Wirtschaftsherrschaft) lost significance by the middle of the eighteenth century, the nobility in the Bohemian Lands developed a more sophisticated system, which spread into glass works, mining, iron-works and textile manufacture during the eighteenth century.2

Proto-industrialization (1720–1780)

The period of proto-industrialization was characterized by an expanding putting-out system, organized by merchants, putting-out capitalists and manufacturers, which all relied on domestic work carried out by decentralized local producers. Their relationship with the merchant or putting-out capitalist varied: while some producers, who sold semi-finished products, were relatively independent

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(Kaufsystem), others had a similar status to subcontractors being supplied with raw material and eventually also with devices (Verlagssystem). In many cases, domestic labour und putting-out agents were part of a larger unit of organization, which combined centralized activities (such as administration and marketing, preparation of raw materials and finishing, carried out in factory headquarters) with decentralized activities (such as spinning, winding and weaving, carried out in the homesteads of mostly rural producers). Centralization not only facilitated controls of labour and quality, it also served to bring together those stages of production that needed water and energy supply. Sometimes the centralized manufacture also included hand-weaving and, albeit less so, spinning. In the Austrian Lands manufactories were huge enterprises employing hundreds of workers in the central manufactories and thousands of putting-out workers. In the Bohemian Lands, however, manufactories were much smaller, usually not exceeding more than some hundred workers. Furthermore, they tended towards a more centralized structure. In Vorarlberg, the third major textile region, the putting-out system did not depend upon manufactories but on Swiss merchants who profited from the lower wages in Vorarlberg.

Hoping for an increase in tax revenues, the state government promoted the establishment and growth of manufactories, which were also exempted from the guild regulations determining the number of masters, the apprenticeship and the control of quality. Conversely, guild rights were legally restricted. Facing fierce competition, they opposed the governmental privileges granted to manufactories. However, guilds were not generally hostile to new organizational patterns of work. On the contrary, they even set up their own networks of putting-out and joined the putting-out systems organized by manufactories.

The first manufactories were founded in the second half of the seventeenth century (1662 Linzer Wollzeugfabrik; 1674 Manufakturhaus am Tabor) when

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mercantilist reforms came on the agenda. The new mode of production was given a boost in 1718. Repelling the Ottoman power, the Habsburg Monarchy conquered Hungary, Transylvania and Banat. Furthermore, the Treaty of Požarevac, which legitimized the eastward expansion, was followed by a trade agreement with the Ottoman Empire. With hopes for East Asian trade under the Habsburg’s flag having been shattered, the access to eastern and south-eastern Europe provided Austrian mercantilist ambitions with new territories.

The Ottoman Empire, which suffered economic decline, not only opened new markets to Austrian industrial products but also promised cheap and regular supply of cotton. Trade was organized by the (second) Oriental Trade Company founded in 1719 – a first one, set up in 1667, stopped operating when the Ottoman troops seized Vienna in 1683. Endowed with a state privilege, the Oriental Company took over the Linz woollen cloth manufacture in 1722; it founded a cotton manufacture in Gross-Siegharts, Lower Austria, in 1720, and established the famous cotton manufacture in Schwechat near Vienna (Schwechater Baumwoll-Manufaktur) in 1724. This enterprise was furnished with a cotton monopoly, which was only lifted in 1762 when other manufacturies were granted similar privileges. In 1787 a general law codifying the foundation of factories replaced these privileges for select producers. Both the Linz cloth manufacture and the Schwechat cotton manufacture were centres of mass production. In 1790, when they reached their peak of employment, the Linz company employed 2,289 people on the site of the manufacture (4.6 per cent of the total workforce) and 47,947 putting-out workers (95 per cent). The Schwechat manufacture had 3,306 employees in Schwechat (10.5 per cent of the total workforce) and 28,046 putting-out workers.

Enjoying specific imperial support because of their loyalty in the Thirty Years’ War, Bohemian nobles were most active in founding manufacturies in the eighteenth century. As the Bohemian nobles wielded greater power over their subjects, who were forced to work in their manufacturies, centralized workshops played a greater role in these enterprises. While these were smaller than in the Austrian lands, they were much more numerous. Nevertheless, they also combined centralized elements with external domestic production.

When the Habsburgs lost almost the whole of Silesia, their most developed industrial province, to Prussia in 1740, they were forced to concentrate their industrial policy on the remaining parts of the country. In 1755 Johann Ludwig

von Chamaré, a Silesian aristocrat who had moved to Bohemia, founded the
Potštejn linen manufacture.\textsuperscript{13} A prominent example for the wool sector is
the Kladruby manufacture, founded in 1749 and transferred to Brno in 1764
(Brünner Wolltuchfabrik) because of the strong government support bestowed on
the industrial development of this region.\textsuperscript{14}

Cotton manufactories were concentrated in northern Bohemia, where the end of
the Schwechat cotton monopoly gave rise to new establishments. The first one was
the noble manufacture at the Kosmanosy manor. The biggest was founded in 1770
by a bourgeois entrepreneur, Johann Josef Leitenberger, in Verneřice/Wernstadt,
occupying 100 persons in the central workshop and 2,000 dislocated spinners and
weavers in their cottages.\textsuperscript{15} In the next decades Leitenberger and his sons bought
several other cotton factories, establishing Leitenberger among the leading cotton
producers.

Textiles were by far the largest sector of industrial activity in the eighteenth
century and they expanded quickly. Their expansion depended upon two crucial
factors: the supply of raw materials and the availability of cheap labour. In order to
increase output, the production of raw textile fibres had to be raised and imports
promoted. Between 1650 and 1750 it was the flax industry that grew the most,
while in the second half of the eighteenth century it was woollen cloth, essential for
army supply. The manufacturing of cotton only started in 1720. After a first period
of steady growth, the introduction of cotton mills in 1800 initiated the exponential
increase of this branch at the expense of flax. The Viennese silk industry on the other
hand profited from the incorporation of Lombardy, a silk-producing province, into
the Austrian Monarchy.

The manufacture of each of these fabrics was usually concentrated in a particular
area and characterized by a specific arrangement of labour organization. While the
weaving of linen remained a local craft, woollen cloth and cotton (with or without
linen) were produced in the manufacture system. Within this system cotton and
fustian manufacturing, relying on domestic labour, differed from woollen cloth
manufacturing, where artisans played an important role. The Viennese silk industry,
by contrast, used a continuum of labour forms, including traditional craft practices,
putting-out systems and various forms of subcontracting and proletarianized wage
work, which proves that a proto-industrial mix of labour was not restricted to the
countryside.\textsuperscript{16}

\textsuperscript{13} Klíma, Economy, pp. 105f; Bohumír Smutný, Potštejnská manufaktura na česko-kladském
pomezí (Hradec Králové, 2002).

\textsuperscript{14} Hermann Freudenberger and Gerhard Mensch, Von der Provinzstadt zur Industrieregion.
Ein Beitrag zur Politökonometrie der Sozialinnovation, dargestellt am Innovationsschub der
industriellen Revolution im Raume Brünn (Göttingen, 1975), pp. 13f; Freudenberger, Lost
Momentum, pp. 154–162; Jan Janák, Hospodársky rozmach Moravy 1740–1918 (Brno, 1999),
pp. 13f.

\textsuperscript{15} Johann Slokar, Geschichte der österreichischen Industrie und ihrer Förderung unter Kaiser

\textsuperscript{16} Helene Deutsch, Die Entwicklung der Seidenindustrie in Österreich 1660–1840 (Vienna,
1909); Josef Ehmer, Familienstruktur und Arbeitsorganisation im frühindustriellen Wien
The recruitment of labour varied according to the type of enterprise. Artisan workshops relied on patrimony, marriage and professional careers within the guild system, each linked with specific patterns of migration. Centralized manufactories recruited not only domestic but also foreign artisans. The latter usually originated from those regions which belonged to Austria in the eighteenth century: linen and woollen cloth weavers came from the Austrian Netherlands; Emperor Franz Stephan imported Lorraine specialists for the imperial gobelin works; Svabia provided fustian weavers; and Viennese silk artisans were of Italian origin. A great number of foreign technicians, apprentices and other artisans followed their masters or entrepreneurs from the industrial provinces on the Habsburg fringes, when these were successfully established in the Austrian heartlands. Thus the Austrian Netherlands, the Vorlande and Lombardy, which did not take part in the unification of the Habsburg market, were of critical importance for the transfer of capital, technology and know-how, and gave important impetus to the industrial development of mainland Austria.¹⁷

Unskilled labour for domestic industries and manufactories was recruited in the rural neighbourhoods of the proto-industrial districts. A set of laws weakening the landlord’s grip over his subjects mobilized rural society. First and foremost serfdom, which was still in force in the Bohemian Lands, was finally abolished in 1781. Furthermore, liberalization of marriage, travelling and choice of profession severed the strong ties between subjects and the land. However, as the manufacturing system also needed domestic labour, the entrepreneurs encouraged new settlement and family foundation in proto-industrial areas. This development created a growing class of people who owned a house and eventually a small plot of land, which served to feed the family working in the textile industry.¹⁸ Because of traditional gender responsibilities in the rural economy, women were generally better prepared than men to respond to the proto-industrial mobilization of additional domestic labour. As long as spinning was carried out by hand, women dominated the textile industrial labour force.

Responses to the British challenge (1780–1873)

Until 1780 the development of the textile sector was characterized by gradual improvements of techniques and organization, linked with a growing output, an


increasing number of workers and a regional expansion of textile districts. This slow progress would probably have resumed after the worldwide recession of the early 1770s, which did not spare the Habsburg Monarchy, had it not been for the mechanization of the spinning process in Great Britain. This invention had a massive impact on the worldwide production of textiles. If traditional manufactories did not want to cede the market to machine-yarn produced in and around Manchester, which continental merchants and weaving manufacturers were eager to buy, they had to react. The manufacturers in the Habsburg Monarchy came up with four strategies, which sometimes complemented and in other cases contradicted each other.

Firstly, a highly protectionist duty system was introduced in 1784 prohibiting the import of nearly all finished cotton cloths and putting high taxes on cotton yarn. At the same time the government pursued the integration and liberalization of the internal market. Secondly, the proto-industrial manufactories markedly increased their production. As each additional weaver needed eight to ten spinners to supply him or her with yarn, the growing production of the manufacture system was linked with a surge in spinners, which tripled their numbers in Lower Austria between 1779 and 1790. Because of the decentralized structure of the system, the demand for labour led to a geographical expansion of proto-industrial districts, which massively increased the expenses for transport, management and control.

Thirdly, the Austrians attempted to develop their own competitive spinning machines. From 1780 onwards the innovative initiatives multiplied. Many of these received government support and were granted privileges for the use of certain devices. However, for various reasons, the multifarious attempts did not engender a decisive breakthrough towards an effective spinning machine. British textiles were attractive and merchants as well as producers imported them in spite of the restrictions.

Only the fourth response put a stop to this attraction: single producers as well as government agents travelled to Britain and tried to spy out the technologies, which were highly protected. At the same time Austrian industrialists encouraged British engineers to join their companies in order to develop spinning machines nach britischer Art (‘in the British way’). Bohemian and Lower Austrian manufacturers competed to be the first to introduce the mill system in cotton spinning with the help of British technicians. A first cotton mill was opened by the Leitenberger company, Verneřice, in 1797, another one on the Auersperg estate of Seč (Bohemia) in 1801. In the same year a group of prominent noble shareholders set up the


k.k. priv. Garnmanufakturgesellschaft in Pottendorf (southern Lower Austria). Much bigger in size, the latter came to be known as the first cotton mill in the Habsburg Monarchy.

Protected from British competition by the Continental Blockade, many mill projects were realized in the following years. The biggest companies were concentrated in southern Lower Austria; two smaller centres of mechanical cotton spinning developed in northern Bohemia and in Vorarlberg. The introduction of the cotton mill was restricted to single towns and villages. Moreover, it only affected spinning. Table 3.1 shows the sudden decline in the number of spinners between 1790 and 1811. The substitution of this essential process by machines heralded the end of the decentralized manufacturing system. The biggest manufactories, the Schwechater Baumwollmanufaktur and the Linzer Wollzeugfabrik, closed down in 1820 and 1850 respectively. Conversely, the power-loom took much longer to be incorporated into the factory system. Although Edmund Cartwright invented it in 1785, it was not until 1834 that the first power looms were successfully set up in an Austrian factory. Only after 1873 did power-loom weaving become the dominant mode of production.

Table 3.1 Industrial workers in Lower Austria, 1762–1811

<table>
<thead>
<tr>
<th></th>
<th>1762</th>
<th>1769</th>
<th>1775</th>
<th>1779</th>
<th>1783</th>
<th>1785</th>
<th>1788</th>
<th>1790</th>
<th>1811</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men and widows</td>
<td>4,349</td>
<td>8,338</td>
<td>14,013</td>
<td>19,235</td>
<td>17,036</td>
<td>25,483</td>
<td>35,531</td>
<td>35,825</td>
<td>43,054</td>
</tr>
<tr>
<td>Women</td>
<td>15,378</td>
<td>27,986</td>
<td>22,117</td>
<td>41,995</td>
<td>77,058</td>
<td>91,531</td>
<td>125,850</td>
<td>146,648</td>
<td>32,381</td>
</tr>
<tr>
<td>Total</td>
<td>19,727</td>
<td>36,324</td>
<td>36,130</td>
<td>61,230</td>
<td>94,094</td>
<td>117,014</td>
<td>161,381</td>
<td>182,473</td>
<td>75,435</td>
</tr>
</tbody>
</table>

*mostly spinners

Source: Komlosy, An den Rand gedrängt, p. 35.

After the end of the Napoleonic Wars, cotton manufacturing used a variety of techniques that also determined the organization of the work process. By the second half of the nineteenth century, spinning was centralized in mills, driven by water power, while weaving was still put out to handloom weavers scattered over rural textile regions. The centralized manufacture was replaced by a new type of enterprise whose headquarter workshops were usually located in a capital or a central industrial town. Their owner, called a Fabrikant, acted as a kind of manager, supplying decentralized home-weavers with machine-spun yarn. Finishing was carried out in centralized units. The most important of the finishing processes

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21 Slokar, Geschicte der österreichischen Industrie, pp. 293–312.
22 Weitensfelder, Industrie-Provinz, p. 108.
was printing, which mechanized during the first half of the nineteenth century. Lace-making, which was equally based on cotton, was organized in a similar way, combining mechanized spinning with decentralized lace-making. Domestic lace-makers were concentrated in Vorarlberg, where the rural population worked for Swiss entrepreneurs.23

Technological innovations were first adopted in the cotton sector. They paved the way for similar experiments in the processing of flax, wool and silk, which were, however, introduced with a delay of some decades. Although these sectors reproduced the dualism between mechanized spinning and domestic weaving, mill spinning was restricted to cotton for a quarter of a century. All other materials were still spun by hand. This technological advantage accounts for the quick expansion of cotton at the expense of other textile sectors. Nevertheless, those branches remained important until the end of the nineteenth century.

Technological improvements, however, were not restricted to spinning. The mechanization of block printing and the introduction of rotary printing were important innovations for the cotton sector in the first half of the nineteenth century. Another crucial invention was the Jacquard machine. First fitted to handlooms and later adapted to power-looms, this mechanical device permitted the weaving of sophisticated patterns. It was widespread in the Viennese silk industry, which specialized in complicated designs. Another mechanism, which was incorporated into ribbon looms prior to the introduction of the power-loom, was the ribbon mill. While traditional craftsmen could only ever weave one ribbon at a time, this invention facilitated the simultaneous production of several ribbons. The Austrian Monarchy granted regional privileges for the introduction of the ribbon mill, which explains the narrow regional concentration of this branch, strongly and persistently opposed by the ribbon craft. The centre of the Austrian ribbon industry was located around Waidhofen/Thaya and Gross-Siegharts in the north-western part of the Waldviertel (Lower Austria).24

Apart from enhancing selectivity and unevenness, the mechanization of textiles modified the geographic patterns, entailed new forms of labour and changed the organization of the manufacturing process. The number of textile centres in rural regions increased markedly. Eventually single factory villages or towns became so dense that contemporary observers were struck by the ‘continuous series of factories, just like in certain English regions’.25 One of the rural areas particularly affected by this transformation was southern Lower Austria, which came to be known as the Industrieviertel (industrial district) after numerous spinning mills had been set up along its rivers. Others were the Vorarlberg Rhine valley, the area surrounding Liberec in northern Bohemia and Brno in southern Moravia, which was to become the ‘Manchester of the Habsburg Monarchy’. These towns and districts attracted migrant labour from both neighbouring and more distant regions.

The proto-industrial putting-out districts, which did not qualify for mill plants, suffered a rapid decline in domestic spinning, which had provided the rural population with an additional income. In some cases, the workers who were made redundant turned towards agricultural production, reducing their textile activities to wool and linen.\textsuperscript{26} Other proto-industrial districts, namely in northern Lower (Waldviertel) and Upper Austria (Mühlviertel), in rural Vorarlberg as well as in many peripheral rural textile areas in Bohemia and Moravia, experienced a boom in hand-weaving which replaced spinning. Hand-weaving from now on was generally considered a male profession in public opinion and in trade statistics. Women who concentrated on preparing and finishing tasks were no longer considered ‘workers’. According to the modern family ideology, they were transformed into helping hands of husbands and fathers, their textile activities placed by definition among housewifely duties.

Rural weavers mainly were cottagers with small plots of land for self-sufficient production of food. Although self-employed, their income entirely depended upon urban textile entrepreneurs, who supplied them with orders and raw materials. As long as weaving depended on their hands, they enjoyed a certain prosperity shaping their identity as rural peasants or cottage weavers. However, when mechanization set in, they had to increase their output in order to compensate for the loss in wages beaten down by the mechanical rationalization of production.\textsuperscript{27}

The industrial branches, which settled in towns with court and capital functions, were usually textile crafts. Nevertheless, these crafts also came under the pressure of technological and organizational change caused by the introduction of the factory system, which they both resisted and adapted to. Vienna was the most important centre of demand for tailor-made textiles. It housed a luxurious silk industry, which not only employed all types and combinations of craftsmen but also used centralized manufactories as well as putting-out activities to homeworkers and decentralized subcontractors. Moreover, Vienna was the home of many entrepreneurs investing in other textile sectors that relied on traditional craft workshops. Apart from carrying out minor artisan tasks, such as preparation and some finishing, the workshops were mainly responsible for the administration of the business and put out weaving into rural weavers’ households, especially in north-western Lower Austria (Waldviertel). Finally, Vienna accommodated numerous artisans specializing in specific luxury products. Giving rise to a growing craft sector, this new niche of textile production resulted in an urban variant of the putting-out system, which lasted until the end of the Monarchy.\textsuperscript{28}


\textsuperscript{28} Susan Zimmermann, ‘Frauenerwerbsarbeit und Haushalt im Wien der Jahrhundertwende’, \textit{Archiv 1990. Jahrbuch des Vereins für Geschichte der Arbeiterbewegung
Austria and Czechoslovakia

While Vienna did not attract any industry that was dependent on water power, the situation was entirely different in the provincial capitals. Brno (Moravia) and Linz (Upper Austria) became centres of the woollen cloth industry, Prague a centre of cotton printing. Combining administrative and industrial functions, these capitals not only attracted migration but also employed handloom weavers in adjacent textile regions. Some towns in rural textile districts became sites of industrial production themselves, setting up a putting-out system of weaving on a local or regional scale.

Textile production still used multifarious forms of labour. Earlier forms and combinations, including domestic production crafts, centralized mechanized workshops and activities put out into rural producers’ households, were supplemented by a new type engendered by the factory system: the proletarian textile worker in spinning or printing mills. At the time, industrial wage work in factories involved extreme exploitation. The new factory villages disregarded traditional social norms, and new conventions such as social bargaining, charity or workers’ organization had not yet developed. Mills were comparable to military barracks: they had a stranglehold over their employees from morning to evening. Workers were shut up in the factories, which they only were allowed to leave on Sundays. Providing food and lodging, spinning mills recruited children and young adults and made them work as many hours as possible until they were replaced by newcomers. Only very few industrial workers, who were skilled and exercised control over other workers, received stable and secure working conditions.

Labour protest took various forms. On the one hand, skilled manufactory workers developed forms of social and cultural bonding already practised by guilds and journeymen. On the other hand, protest was expressed by means which popular movements had always used to blame famine, rising prices, layoffs, income or legal degradation by directly addressing the person or the object considered to be responsible. This protest arose spontaneously; it broke out when new machines put pressure on wages and employment. A wave of labour unrest occurred throughout the major textile regions of the Monarchy when the introduction of the power-loom and new machines for textile printing coincided with the severe economic crisis of the 1840s, which caused wage cuts and mass dismissals. Workers’ actions in Prague and northern Bohemia, as well as Vienna and southern Lower Austria, culminated in 1844, when they were inspired by the Silesian Weavers’ Uprising, and in 1848, when they were fuelled by the Bourgeois Revolution, of which they formed an integral part. The workers’ protest went hand in hand with bread-riots

6 (Vienna, 1990), pp. 92–122.
30 Klíma, Economy, pp. 197–204; Karel Novotný, Severočestí tiskari kartounu v první polovině 19. století, 1 (Prague, 1993); Wolfgang Häusler, ‘Die Petition der Spinnereiarbeiter des
and machine breaking, mainly carried out by weavers and printers. At the same time new forms of collective bargaining came up, not only on the level of the single enterprise, but for all workers of a specific textile branch. Mule spinners of the Lower Austrian industrial district submitted a petition to the new Parliament of 1848, asking for legal regulations and social rights for workers. With the repression of the Revolution, workers were equally silenced until 1867, when a Constitution granted the ‘right of assembly’. Two years later, the ‘freedom of association’ legalized unions, strikes and collective bargaining.\(^{31}\)

From 1815 to 1873 the mechanization of spinning and printing gradually expanded. Furthermore, it spread from cotton to other fibres, involving more and more people and locations in the process of industrialization, which increased the number of proletarian workers. Although the mechanization of weaving started in the 1840s, until the crisis in 1873, weaving largely remained a manual activity, which entailed the simultaneous expansion of semi-proletarian hand-weaving. The improvement of transport facilities, especially the railway system which was built from 1840 onwards, allowed the creation of networks which facilitated an unequal division of labour between various locations with their different organizations of labour. Operating on both a regional and a supra-regional scale, these networks not only included the industrialized regions but also incorporated those provinces that supplied migrant labour and raw materials or served as marketing areas.

### Changing regional and sectoral patterns (1873–1918)

The year 1873 was a turning point for the world economy which after an expansive cycle with high rates of growth fell into a period of crisis characterized by economic decline on the one hand, and a desperate search for means to initiate renewed growth on the other. The economic crash occurred in the very year that Vienna hosted the World Exhibition. As a result of the collapse, many companies faced bankruptcy. In order to stay competitive, producers had to reduce costs. Hence they rationalized, lowered wages and looked for new geographical arrangements. Investment was most profitable in the sectors serving as new locomotives of growth, such as steel, machines, electricity, food processing and the chemical industry. Compared with the textile industry, these branches attracted higher rates of investment and increased the number of their employees in the last decades of the nineteenth century. While the highly profitable branches were concentrated in the industrial centres, less profitable sectors were often located in peripheral regions. In the textile industry, however, central as well as peripheral regions were affected, and the interregional division of labour within the textile sector underwent significant changes.

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A major consequence of the crisis was that all those industrial producers who still operated manually introduced mechanical power. This process exercised enormous pressure on handicrafts, which were reduced in number and significance, and on handloom weavers, who often found alternative sources of income in the knitting and lace-making industry. Producing broad pieces on mechanical knitting frames in factories, this branch put out the knitting of smaller items to hand-machine workers. Furthermore, knitwear required many very labour-intensive finishing processes like seaming, linking and so on, which were usually carried out by female homeworkers. Similarly, lace-making machines, which demanded special skills, were most suitable for operation in domestic workshops.

Rationalization also seized the garment industry. Handmade clothes became a luxury product, when the tailor’s business in the last third of the nineteenth century turned from a handicraft into an industrial activity. However, the ready-made production of clothes was neither mechanized nor centralized. Since the sewing machine was suitable for decentralized use and clothes-making included other labour-intensive operations, which had to be carried out manually, the branch was decentralized, putting out the single steps to individual workshops and households. Located in the centres of consumption, namely in Vienna, the clothing industry became the dominant urban textile branch of the late nineteenth century.

Irrespective of the branch and material, mechanization seized the majority of the stages in the individual production chains. Factories spread all over the countryside, with single regions specializing in specific stages of the working process. Central industrial agglomerations faced a shift from textiles towards other sectors, while often maintaining those textile factories founded in earlier periods. Furthermore, new weaving or knitting factories were set up in rural textile areas that used to be putting-out regions. The silk branch, which had been concentrated in Vienna until 1873, transferred the whole production chain to the Bohemian Lands. In many cases the headquarters of the companies stayed at their (previous) urban locations in consumer centres, chiefly in Vienna. However, they were often transformed into mere managing and marketing units, while the manufacturing processes were pushed into the periphery.

Traditional crafts fell victim to the overwhelming competition of the factory system. However, many of them were able to find specific niches in which to survive. Equally, machine-weaving did not put an end to homework. On the contrary: moving into new fields of operation, handicrafts and homework expanded along with the factory system. On the one hand homeworkers took over those steps of the production process which were not yet mechanized, such as the weaving of complicated and irregular patterns on a Jacquard loom or specific finishing and application tasks which demanded manual skills. On the other hand they carried

32 Komlosy, An den Rand gedrängt, pp. 75f.
out ordinary winding and weaving, serving as a cheap labour force, which could be taken on in times of high demand and dropped in periods of stagnation. These homeworkers were in direct competition with the machines, thus suffering from enormous pressure on their wages.

The spread of the factory system gave rise to an organized labour movement, which started to take shape in the 1870s. It was characterized by heavy disputes on ideological questions as well as on the tactics of political action. The split between ‘Radicals’ and ‘Moderates’ was overcome by the foundation of a single Labour Party (Sozialdemokratische Arbeiterpartei, SDAP), which voted for a Marxist programme and at the same time for participation in the parliamentary system. Regional disparities and the striving for national liberation, however, led to a split of the SDAP along ethnic lines. The Czech Party split from the German SDAP, the same applied to the trade unions’ congress. The diversity in social and national terms was reflected by an organizational heterogeneity of the labour movement. Although textile workers were numerous among party and union members and carried out a number of important disputes and strikes, they did not belong to the labour movement elite. On the one hand, this under-representation is due to the declining dynamics of textiles as a leading industrial branch, on the other hand, it corresponds with the feminization of textile production as a consequence of mechanization and the stagnation of wages in comparison with the new leading sectors.

At the same time the rural preponderance and the high percentage of craftsmen and homeworkers prevented textile labour from developing a typical proletarian character. Craftsmen and homeworkers, who often were self-employed, rejected the proletarian identity propagated by the organized labour movement. Sometimes the rural poor had no other choice than to accept their precarious working conditions, especially if their area did not offer any alternative sources of income. As official labour records complained, organization outside urban and industrial centres was very scarce. The dire living conditions of Austrian and Bohemian home-weaving families at the end of the nineteenth century were well documented in a new genre of journalism, which published heartbreaking on-the-spot accounts in the social democratic press. Government inquiries also dealt with the weavers’ poverty. Notwithstanding these circumstances, the inhabitants of many former proto-industrial regions preferred homework to industrial wage work because they cherished their economic independence and the possibility to be their own masters. Home-weaving families showed great flexibility and initiative in earning their living. They accepted seasonal wage work as well as employment as servants

35 Komlosy, ‘Stube und Websaal’, p. 124; Hugo Herz, Die Heimararbeit und der Notstand der Heimarbeiter in der mährischen Textilindustrie (Brünn, 1904).
36 Klenner, 100 Jahre Österreichische Gewerkschaftsbewegung, pp. 23, 34–39.
37 Stefan Riesenfellner, Der Sozialreporter Max Winter im alten Österreich (Vienna, 1987).
and were also prepared to migrate to other places.\textsuperscript{39} Hence, resembling the old manufactory handwork putting-out system, rural weaving factories were de facto ‘putting-out factories’. The same applies to knitting and lace-making factories. They combined factory work with specialized external production, which offered alternative sources of income to former weavers.

**The Czechoslovak textile industry until the collapse of the Iron Curtain (1918–1989)**

The collapse of the Austro-Hungarian Monarchy in 1918 broke up the established interregional division of labour and a large internal market. From one day to the next, different parts of the textile production chain were situated in separate states, and interregional became international relations.

Czechoslovakia inherited the major share of Austro-Hungarian textile capacities. Furthermore, including spinning, weaving, knitting and finishing units processing cotton, wool, silk, flax, hemp and synthetics, these were more diversified than in other parts of the former empire. The territory of the Czechoslovak Republic incorporated 71.7 per cent of all cotton spindles of the former Habsburg Monarchy, 89.9 per cent of cotton looms, 74.3 per cent of wool spindles, 96.9 per cent of linen spindles, 52.1 per cent of hemp spindles, 66.4 per cent of jute spindles and 89.9 per cent of silk facilities.\textsuperscript{40} Profiting from these existing structures, post-war reconstruction simply had to fill the gaps in the production chain of the new national market.

The most important Czech textile regions bordered Austria in the south and Germany and Silesia, which became part of Poland after the Second World War, in the north. A large majority of the population in these regions was German-speaking. Accordingly, textile capital was mainly in the hands of German-speaking owners, many of them Jewish, except for a few branches located in eastern Bohemia, whose owners were predominantly Czech. In order to diminish the Austrian influence, the Czechoslovak government promoted the so called ‘nostrification programme’ in 1919, which aimed to replace German and Austrian owners with Czechs or at least with West Europeans. By 1924, the textile sector accounted for 33 of the 133 ‘nostrified’ companies.\textsuperscript{41}

Comprising only 13 million inhabitants, the Czechoslovak market was far too small to absorb the domestic production that used to supply 52 million people.


Hence the future of the Czechoslovak textile industry depended on the search for new markets. These were mainly found in Austria, which lacked certain products or semi-products traditionally manufactured in Bohemia or Moravia, and in other Eastern European successor states as well as in south-east Europe, whose textile capacities were lagging behind.

In 1920 Czech factories exported 10,779 tons of cotton products, 48 per cent of which went to Austria, 12 per cent to Hungary, 6 per cent to Germany, 6 per cent to Yugoslavia and 5.5 per cent to Poland. Manufactured woollen exports amounted to a total of 10,565 tons, 52 per cent of which were sold in Austria, 14 per cent in Hungary, 14 per cent in Germany, 4 per cent in Yugoslavia and 3 per cent in Poland. Textiles accounted for 85 per cent of total Czech imports in the Balkan states in 1920/21. In the following years Czech textiles encountered several barriers. When the east and south-east European states established their own textile industry, they protected their markets against Czech manufactures. While Czech textiles were not completely replaced by domestic production, the imports shifted from finished to semi-finished products, such as yarn. Czech companies reacted by founding local subsidiaries in order to circumvent these protective tariffs. Another obstacle for trade was the insufficient currency reserves for imports, which Czechoslovakia tried to counter by resorting to barter. For example, textiles were exchanged for tobacco. The Czech efforts met with similar German strategies that ousted Czechoslovakia from east and south-east European markets and eventually integrated the whole region into the ‘German Grossraum’.

Like other consumer industries, the textile sector was severely hit by the world economic crisis of 1929. Internal and external demand collapsed. In the wake of the crisis West European states as well as Czechoslovakia introduced restrictions against agricultural imports from south-east Europe. As a consequence, these countries intensified their exchange with Germany, which accepted raw materials for German manufactured goods. Specialized in manufactured exports to south-east Europe, the Czechoslovak industry fell victim to this strategy, losing markets in east and south-east Europe. Austria also reduced its imports from Czechoslovakia. Between 1924 and 1937 Czechoslovak exports to Austria and the other successor states of the Monarchy fell from 40.3 per cent (1924) to 35.1 per cent (1929) and 29.9 per cent (1937). Textiles were particularly affected by this loss in market shares and, as a consequence, lost their dominant position in the Czechoslovak economy.

In the 1930s many textile workers were made redundant, several companies went bankrupt, hand-weaving and homework faced a final collapse and unemployment rose. Since the unemployment rate was higher in the German-speaking border regions than the national average, German nationalist parties blamed the Czech government for neglecting the German minority. This situation fuelled the idea

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42 Jakubec, ‘Textilindustrie’, p. 3.
43 Ibid.
45 Teichova, Wirtschaftsgeschichte der Tschechoslowakei, p. 54.
of joining Germany, which, under Hitler’s government since 1933, agitated for the annexation of the Czech border regions. Following the Munich Agreement in September 1938, where Great Britain, France and Italy had approved the German annexation, the so-called Sudetengebiete were incorporated into the Third Reich. The major share of Czech textile regions were thus integrated into Germany, which supplanted Jewish with German owners.

During the Second World War, when the rest of the Czech territories became a German protectorate, priority was given to heavy industry and arms production. Textile industries had to serve military demand, and factories often were used for other purposes than textiles. After the Second World War, when Czechoslovak state unity was restored, private property faced two waves of nationalization. In 1945 the government expropriated German citizens and so-called collaborators, which affected the majority of textile firms in the annexed border areas. When the Communists assumed power, they initiated a second wave of nationalization, which was directed against private ownership in general, and seized all of the remaining private textile companies.

As the limited space of this chapter does not allow a detailed description of a planned economy, I will summarize those features that had a direct impact on the Czechoslovak textile industry. Firstly, in the post-war reconstruction period priority was given to heavy industries and the production of machines, while consumer industries were neglected. As a consequence the share of textile production decreased. This process effected a diversification of the economic structure, including a specialization in the production of textile machines. Secondly, as in the other sectors, the nationalization of the textile industry involved a reorganization of the branch. Thus single units were incorporated into big company structures, which gathered all of the stages of production for a particular material. This structure facilitated the introduction of the latest techniques, including automation, but it did not necessarily promote high quality. The planning mechanism did not only destroy the established geographical patterns, it lacked any continuity, as each planning period entailed a change of the industry’s organizational structure. Thirdly, location and investment followed a political logic. Previous patterns of local specializations were replaced by investments, which served regional or social purposes, such as the creation of jobs for women.

The newly established state-owned branch companies sometimes comprised decentralized factories in rural areas, thus promoting industrial work all over the country. For the first time in Bohemian history, textile labour was purely proletarian. Workers enjoyed job security and a high level of social rights. They did not have a voice in shaping industrial relations, which were determined by state, party and unions; unions acted under state control. Investment priority was given to Slovakia in order to promote the industrialization of this predominantly agrarian area of the country. Slovak industrialization efforts concentrated on heavy industries and arms production whereas textiles sometimes featured in but never dominated the

46 Ibid., p. 88.
47 Ibid., pp. 112–128.
investment. As a consequence, the textile sector remained much more important in Bohemia and Moravia, where it continued old traditions. Slovakia served as an internal market.

At the beginning Czech textiles had no problem in finding new export markets. Since the level of industrial development was very low in the majority of the COMECON member states, when these joined the Soviet project, they were very interested in importing goods from Czechoslovakia until they had developed their own textile capacities. However, these COMECON obligations did not markedly change the geographical export patterns, which still very much resembled the pre-Communist period, when the markets absorbing Czech products were also chiefly located in Eastern Europe. Czech textiles were highly diversified, manufacturing all kinds of materials, including synthetic fibres, and all types of cloth. Their centres of textile research and innovation placed them among the world’s leading textile industries.

However, despite this good international reputation, Czech textiles had neither a tradition nor a realistic chance to succeed in competitive Western markets. Unlike these, COMECON demand did not promote growing productivity, innovative designs and increasing quality. When other COMECON producers had established textile capacities in the 1960s and 1970s, Czech imports had to compete with import substitution, which found expression in a diminishing share of textiles in the industrial sector. Still, because of their variety and quality, textiles and textile products remained an important commodity, occupying 11.5 per cent of the industrial labour force in 1990. Only when communism collapsed in 1989 and COMECON was dissolved in 1991 did Czech textiles have to adapt to a new situation.

Austrian textile industry until the new international division of labour (1918–1980)

The Republic of Austria was not the result of a striving for national independence. Founded in November 1918, it included those territories of the former Monarchy that were not claimed by other successor states. Irrespective of political boundaries, the predominantly German population of the new Austria proclaimed itself to be part of Germany (Deutschösterreich) and wanted the German-speaking provinces of Bohemia and Moravia, of Hungary and Italy to join Deutschösterreich. However, the Peace Conference in 1919 only recognized the Austrian claim for western Hungary, while Italy and Czechoslovakia received southern Tyrol and German Bohemia and Moravia respectively. The international community would not allow a union with Germany. However, Austria was not only an unwanted remnant of

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the Habsburg Monarchy at the time of its foundation; it was also cut off from its former economic partners. The split up of the Monarchy and the proclamation of the successor states that precipitated the national integration of their economies broke up the existing regional division of labour. Austria was confronted with the major task of overcoming this transformation, which apart from economic also had social and political implications. Thus Vienna, a capital administering an empire of 52 million inhabitants, was left with less than 8 million people. Furthermore, the luxury sectors of the textile and garment industry, concentrated in Vienna, had lost their primary customers, the court and the nobility.

The textile industry serves as a good example to illustrate the difficult Austrian situation. While the majority of its capacities were inherited by Czechoslovakia, only negligible quantities of the textile industry were located in Hungary, Poland, Romania and Yugoslavia. Southern Lower Austria had been the centre of huge spinning and printing units, while weaving factories were located in Bohemia and Moravia. While the sheer size and versatility of the Czech textile industry allowed it to counter these regional imbalances and thus to promote the transformation into a national economy, the disruption of the interregional division of labour caused the most severe regional imbalances of textile production in Austria.

It was thus also for economic reasons that Austria laid claim to the German-speaking regions of the Bohemian borderlands. Their textile capacities were closely interwoven with the Austrian industry. Losing them, Austria had to either import or replace the lost capacities. However, in spite of its attempts to sever economic relations with Austria, Czechoslovakia remained an important trading partner, accounting for the biggest share of Austrian exports (until 1927, then second after Germany) and the second largest (after Germany) of Austrian imports. At the same time the mutual imposition of duties on imports granted space for domestic developments. Austrian producers established weaving capacities in traditional textile regions, namely in Lower and Upper Austria and in Vorarlberg, and they expanded the weaving branch in the Waldviertel. German-speaking Bohemian textile producers, who were afraid of losing access to the Austrian market, also invested in these regions, either by moving their production sites to Austria or by establishing local subsidiaries, usually located near the border.

Vorarlberg was traditionally incorporated in a textile region centred in eastern Switzerland and south-western Germany. In the eighteenth century the small province served as a proto-industrial district for Swiss putting-out capitalists. However, at the turn of the nineteenth century Austrian protectionist policies forbade domestic workshops to carry out finishing processes for Swiss companies, which, in turn, encouraged entrepreneurs to turn Vorarlberg into an industrial centre for printing. When the first spinning mills were established, Vorarlberg

50 ÖSTAT (Österreichisches Statistisches Zentralamt), Beiträge zur österreichischen Statistik, 1, Der Außenhandel Österreichs in der Zeit zwischen den beiden Weltkriegen (Vienna, 1946), p. 34.
was under Napoleonic rule, thus profiting from the Continental System and the close relationship with Switzerland. Vorarlberg was returned to Habsburg Austria in 1814 and joined the Habsburg market area in 1825/26. Therefore, Swiss capital invested in Vorarlberg in order to gain access to a market including the province of Lombardo-Venetia, which joined the Habsburg single market in the same year. Thus traditionally being part of the Lake Constance region, Vorarlberg was never interlinked with the textile districts in the eastern parts of Austria. After the foundation of the Republic of Austria in 1918, the provincial government, backed by a referendum, petitioned for integration into Switzerland. For various reasons its demand was rejected. However, this decision did not damage Vorarlberg textiles. On the contrary, benefiting from the loss of the Bohemian Lands, they improved their position in the Austrian internal market. At the same time, they maintained close ties with Switzerland and the west of Europe which, in combination with the more diversified structure of their trade and production, rendered their companies less vulnerable to recessions.

In eastern Austria the textile industry depended upon East European markets where it now faced fierce competition from Czech companies. While the Czechs proved to be better equipped for this new situation, 31 per cent of Austrian exports in 1930 still went to Hungary, Poland, Czechoslovakia and Yugoslavia, with the textile industry producing a major share of these goods. Austria was also confronted with new competitors from the European south-east, where a domestic textile industry had been established.

When it had finally recovered in 1924, the post-war Austrian economy only saw a short period of stability which came to an abrupt end with the economic crash in 1929, which had a catastrophic impact on profits and employment. The textile industry was swept by bankruptcies, while the companies that survived the severe blow had to reduce their labour forces significantly. The rates of unemployment surged in all textile areas. Yet, they were particularly high in those regions that were more or less dependent on one single branch. At the same time, the government cut social benefits and reduced the claiming periods. In this dire situation many families were saved by their small plots of land, which were common in many rural textile regions (for example in the Waldviertel and the Mühlviertel).

Between March 1938 and April 1945 Austria was finally united with the Czech borderlands when both were annexed by Germany. German industrial planning resulted in the Austrian economy turning from eastern and south-eastern Europe towards the (German) west. The ties among the successor states of the Habsburg Monarchy were subordinated to German capital interests, which took over command and ownership of large parts of the Austrian industry. Equally, the production of

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53 ÖSTAT, Beiträge zur österreichischen Statistik, 1, p. 34.
consumer goods was replaced with basic (steel, aluminium) and military industries. The latter in particular was regularly modernized and expanded quickly. Textiles became a marginal sector that was of no interest to German capitalists. Still, in the last years of the Second World War textile factories served military purposes, especially in rural regions where the risk of bombing was lower than in towns and industrial centres.

Both the Allied forces occupying Austria until 1955 and Austria’s participation in the West European recovery project, initiated by the Marshall Plan, imposed major limitations on the post-1945 reconstruction of the textile sector. First and foremost, the post-war recovery programme aimed at the reconstruction of the Austrian economy as it was shaped by the Nazi war machine. The investments therefore targeted basic and heavy industries at the expense of light industries. Furthermore, they aimed to link Austria with the European West, that is the countries taking part in the Marshall Plan. The Marshall Plan funds were designated for the reconstruction of those basic industry sectors that supplied OEEC markets, above all Western Germany, with essential semi-finished products. Consumer industries did not benefit from such support at all. The neglect of textiles entailed that former exchanges, which had been set up among the East European successor states of the Habsburg Monarchy, were discontinued. The European Recovery Programme thus initiated a second wave of Westernization.

The reconstruction of the textile sector was further exacerbated by the fact that – with the exception of the Vorarlberg Rhine valley – practically all Austrian textile regions were situated within the Soviet occupation zone, which was excluded from Marshall Plan grants for political reasons. Moreover, the Treaty of Potsdam, signed in August 1945, determined that the Soviets were allowed to expropriate the so-called ‘German property’, by way of compensation for war destruction, while all other firms remained in private property. Textiles were rarely ‘Sovietized’. Private textile producers in eastern Austria were left to their own devices. Because of the lack of capital and credits, most enterprises were small in size, output and labour force. They used outdated equipment and often employed a number of homeworkers. Some bigger owners held back investment in order to open subsidiaries in the Western occupation zones. They thus reinforced an industrial structure characterized by small-scale enterprises and high elasticity of employment and produced mainly for local and regional markets. The census of 1951 shows that 17.5 per cent of the people employed in industry in Lower Austria were textile workers, another 11.5 per cent worked in the garment industry; in textile districts this percentage was as high as 50 per cent.

After the withdrawal of the occupation forces in 1955, public support concentrated on those industries taken over from Soviet administration, mainly branches of the metal, machine, oil and chemical trades. The consumer industries only caught up in the 1960s when mass consumption rose. Starting in the urban

57 ÖSTAT, Volkszählung 1951.
centres, entrepreneurs founded new factories and invested in existing textile producing facilities. This process quickly spread into rural regions, with a first wave targeting traditional textile areas such as southern Lower Austria, the Waldviertel and the Mühlviertel, and a second wave reaching more distant rural areas without any industrial traditions.\textsuperscript{58} The availability of cheap land, buildings and labour force in the latter regions attracted not only textile companies but also investors in garments and electronics.

Yet, the ensuing process of industrialization differed markedly from earlier periods. Unlike the old textile enterprises, the new establishments were subsidiaries of multi-regional or multinational companies whose headquarters were located outside the region. They were bigger in size and workforce, which was often composed of low-skilled and very young, mostly female workers, who accepted low wages. While an increasing number of people started to work for these industrial branches, the small textile producers were in decline and had to reduce their workforce. Only Vorarlberg did not conform to this pattern. The process of industrialization in Vorarlberg mainly drew on local capital. Since domestic workers went into more attractive sectors in Switzerland or at home, the textile companies in Vorarlberg employed a high number of foreign workers, amounting to 30 per cent of the textile workforce in the early 1970s, and they established subsidiaries in the eastern parts of Austria themselves.\textsuperscript{59}

The textile and garment sectors saw high rates of growth in the 1960s and 1970s and still employed an important share of the Austrian industrial labour force (1970: 11 per cent in the textile and 7.5 per cent in the garment industry in Lower Austria). However, they continuously lost ground to other industrial branches as well as to the service sector, which was to become the branch of the future. The world economic crisis of 1973, which marked the end of the economic cycle fuelled by post-war reconstruction, triggered the great decline of the Austrian textile industry. When growth margins decreased and competition grew, capital developed new strategies to lower costs. The entrepreneurs rationalized the work processes and moved labour-intensive branches to Third World countries. As a consequence textile and garment production decreased rapidly in all of Western Europe. This decline had a major impact on the peripheral rural regions where these industries were concentrated. While the industrial centres replaced the declining branches with new sectors of growth, the rural regions that depended upon a limited number of industrial branches faced de-industrialization.\textsuperscript{60}

As early as 1974 the first textile companies moved production from the peripheral Austrian regions to the global peripheries. Both Third World and Eastern European countries, namely Hungary and Romania, began to take over the labour-


\footnotesize{\textsuperscript{59} Stephan H. Lindner, ‘Der lange Abschied vom ‘Textilland’ Vorarlberg’, \textit{Alemannia Studens} 7 (1997): 55–87, at pp. 74f.}

\footnotesize{\textsuperscript{60} Komlosy, ‘Die niederösterreichische Wirtschaft’, p. 301.}
intensive steps of textile production for Western multinational companies. One early prominent example was the spinning and knitting company Patria-Piering. Established in the Waldviertel at the end of the nineteenth century, it founded several subsidiaries in this region in the 1960s. Yet, in 1974 a first manufacturing line for pants was transferred to Romania, dismissing 200 local workers.\textsuperscript{61} Austrian locations were not closed down immediately. For the next 15 years the Austrian government subsidized attempts at restructuring, such as mergers with other companies, and the communities offered financial incentives to save old businesses or to encourage new enterprises.

In spite of these desperate efforts, most of the companies eventually left the Austrian periphery. Thus Patria-Piering shut down a knitting branch in 1982. Its spinning mill was included in the so-called \textit{Textillösung Ost}, a joint regional rescue programme which aimed to coordinate the restructuring of several big textile firms in eastern Austria. When this project failed in 1978, the Patria spinning plant changed owners several times until it was bought by an Indian-based world producer of textile machines in 1984, who received high government subsidies to modernize the equipment, before closing down the site in 1987.

The transfer of labour-intensive industries to cheaper locations in the south or the European East is usually traced back to the world economic crisis. However, these interpretations do not take into account that it was not until the 1980s and 1990s that entrepreneurs closed down their companies in the Austrian textile regions. Only some of them managed to survive by specializing in market niches. In 1981 textiles accounted for 5.5 per cent and garments for 6.5 per cent of industrial employment in Lower Austria.\textsuperscript{62}

There are obvious parallels between the crises of 1873 and 1973. Putting an abrupt end to a cycle of expansive growth, both initiated a period of restructuring, which involved the search for strategies to lower the costs of production and led to new geographical arrangements and a new interregional division of labour. The crisis of 1873 precipitated the mechanization of the weaving process and the foundation of weaving mills in rural textile regions. The crisis of 1973 again accelerated rationalization and diminished the demand for labour. At the same time multinational companies founded new production sites in global peripheries, introducing a new division of labour on a world scale. In the textile and – even more so – in the garment industry, the global peripheries replaced the rural regions. These had served as cheap locations for production since proto-industrial times and were temporarily revived in the periods after 1873 and after the economic restructuring in the 1920s as well as in the years of economic expansion in the 1960s when big multinational companies used them for branch establishments. However, from 1980 onwards the companies started to locate their production sites in global peripheries, leaving the rural textile regions in eastern Austria without prospects. While Vorarlberg was equally affected by this change, it was more successful in

\textsuperscript{61} Komlosy, \textit{An den Rand gedrängt}, p. 236.

\textsuperscript{62} ÖSTAT, \textit{Volkszählung 1981}.

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finding market niches and in replacing wholesale commodities with specialized articles for export.  

While Austria was a main industrial producer of textiles between 1873 and 1973/80, labour organizations were substantially involved in shaping working conditions, first on the factory level, subsequently on the branch level and finally by Trade Union Federations which acted nationwide. Major social achievements were legally admitted in the 1880s and the 1920s. After the Second World War unions were co-opted into a so-called ‘Social Partnership’ (Sozialpartnerschaft) with the employers’ organization, exercising far-reaching legislative and executive power in controlling wages, prices and employment. Hence Austria adopted a class consensus with high social standards; it became famous for its social peace and the absence of industrial action. The corporatist management of social affairs was carried out without active workers’ participation. In spite, however, of their common interests, textile unions and the federation of industries were not able to prevent outsourcing, global relocation and the sharp decline of domestic textile production.

Central European textiles facing globalization

The collapse of Communism and the capitalist transformation of Czechoslovakia opened new possibilities for East–West cooperation. Attempting to overcome their structural crisis, Western textile companies welcomed the free access to East European markets and labour forces from 1989 onwards. Czech and Slovak industry, whether state-run or privatized, was poised to work for Western companies. While Slovakia, which became an independent state in 1993, played a minor role in the textile and garment sector, Western entrepreneurs often used Czech textile and garment facilities for their production, either by subcontracting specific tasks or by taking over whole companies. Production costs in the Czech Republic were much lower than in Austria, and at the same time the workers were regarded highly for their skills and their discipline.

So did the outsourcing of industrial production to the Czech Republic rescue the Czech textile and clothing sector? After 1989 Czech textile companies were confronted with the capitalist world market. When COMECON was abolished in 1991, they lost their protected markets in Eastern Europe, where they faced competition from Turkish or East Asian products, while Western markets were closed off by protectionist barriers. Many enterprises did not survive the complicated process of restructuring and privatization. However, others succeeded by serving as cheap extended workbenches for Western labels.

After the fall of the Berlin Wall, many small and medium textile producers of the Waldviertel, which borders on the southern Czech Republic, seized the opportunity to move some of their production lines to a cheaper location with a view to

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63 Lindner, ‘Der lange Abschied’, pp. 82f.
Austria and Czechoslovakia

stabilizing their Austrian firms. Local producers hoped to profit from the unequal international division of labour on a regional scale, for the Czech Republic offered the advantages which until then could only be found in Hong Kong, Singapore or in free production zones in South America and in the Philippines. Furthermore, several multinational companies transferred their textile production from Austria to the Czech Republic. Thus Steilman, a worldwide producer of ready-to-wear clothes abandoned its sites in the Waldviertel, which were only established in 1979. ‘Hongkong is on our doorstep’; with these words a manager of a multinational firm, which had just moved part of its production from the Waldviertel to the Czech Republic, expressed his feelings about the new situation in 1994.64

As there are no major multinational companies with their headquarters in Austria, the country did not play a leading role in transforming Eastern Europe into a cheap production site for the West. The majority of transactions were undertaken by companies from the European Union (EU), which signed a business agreement with a number of Central European countries in 1992. Exempting semi-finished products of Central European origin from import duties in the European Union, this deal opened the textile and garment sector of these countries to outward processing. When Austria became a member of the European Union in 1995, local companies also profited from this arrangement. While the improved access to eastern labour strengthened the market position of EU textile companies, the dislocation of production sites, whether to a close or a distant ‘Hongkong’, was a severe threat to the jobs of EU textile workers.

Czech textile and clothing companies’ acquiescence in the role of dislocated production sites was a clear sign of their economic dependency. Outward processing was their only way to enter Western markets. Nevertheless, Czech textiles have steadily declined since 1989. On the one hand, this is due to the fact that Czech sites competed with other East European and Third World locations where the production costs were even lower. For many companies the Czech Republic was one of the many transitional pieds-à-terre on their continuous search for the cheapest arrangement. When living costs and wages rose, the Czech Republic started to lose its relative advantage to other countries. On the other hand, the practice of transferring production to Eastern Europe was adopted by other branches attracted by the Czech combination of lower wages and high skills, such as the automobile or the machine industry. From the 1990s onwards, leading Western producers in these sectors have invested large sums in the Czech industry and have taken over major Czech companies.65

The decline of the textile industry was mirrored in a decreasing number of workers employed in this sector. While in 1990 the textile and garment industry still accounted for 11.5 per cent of employment in manufacturing industry, this number fell to 9 per cent in 2002. Nevertheless, compared to the textile sectors in Austria, Czech textiles employ a relatively high share of workers, which proves that

64 Komlosy, ‘Die niederösterreichische Wirtschaft’, p. 337.
65 Hannes Hofbauer, Osterweiterung. Vom Drang nach Osten zur peripheren EU-Integration (Vienna, 2003), pp. 191f.
The dislocation of labour-intensive industries had a positive effect on employment figures. It is interesting to note, however, that employment in machinery faced an even bigger decline, from 22.7 per cent to 12 per cent. The biggest decline took place between 1990 (22.7 per cent) and 1995 (15.6 per cent). These numbers reflect the process of de-industrialization, which immediately followed the change of system, while foreign investment, which took place in a second phase, was very selective and went hand in hand with closures and rationalization.

The Austrian textile industry underwent a rapid decline in the 1990s, which caused severe problems in the rural textile regions. In 1991 the textile sector accounted for 5.8 per cent of industrial employment, the garment sector for 4.2 per cent. Of the 31,380 people employed in textiles, 41 per cent worked in Vorarlberg, 21 per cent in Lower Austria. The garment sector employed 22,790 workers, 20.5 per cent of which were located in Lower Austria, 18.5 per cent in Upper Austria and 15 per cent in Vienna. From 1991 to 2003, the number of jobs in these industries constantly decreased, from 31,380 to 18,900 employees in textiles (−39.8 per cent). In the clothes sector the reduction was from 22,790 to 9,600 (−57.9 per cent). Now Vorarlberg was also affected and many well-reputed textile firms had to close. As a result of this declining significance, the Textile Workers Union (Gewerkschaft Textil Bekleidung Leder) gave up as an autonomous organization in 2000 and merged with the Union of Metal Workers.

There are some success stories of companies that managed to maintain their market position or to find a specialized niche. However, the era of mass production is over, leaving behind thousands of jobless textile workers. The decline of textiles coincided with a general crisis in industrial mass production, which was the foundation of post-war growth. While the regions with a more balanced structure of employment were able to counter the effects of rationalization and the new international division of labour, the industrial crisis had its most severe impact on those districts that specialized in textiles. Textile workers, who earned very low wages and had almost no qualifications and no chances for advancement, went from bad to worse when the era of textile production ended.

Textile and garment production employed a high percentage of women, hence unemployment has a female face. Many female former rural textile workers have as yet been unable to find a new stable job. Tied to the houses they built in textile villages, they often depend on temporary contracts or return to hearth and home. Many of them try to make up for their income losses by growing their own food or by carrying out tele-homework, thus adopting their ancestors’ strategies to combine paid and unpaid labour, periods of domestic employment with periods of migration. Like the labour force, former textile buildings have lost their specific

67 Österreichisches Institut für Raumplanung (ÖIR), Entwicklungsperspektiven der Textil- und Bekleidungsbranche im nördlichen Niederösterreich (Vienna, 1993), pp. 7–9.
69 Lindner, ‘Der lange Abschied’, p. 85.
function. Ruins evoke memories of an industry that has moved to other places in the world. At the same time, textile museums and trails, which were set up in many textile regions, try to conserve the heritage of textiles and reflect on the social and economic transformation.

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70 Andrea Komlosy, Waldviertler Textilstraße. Reisen durch Geschichte und Gegenwart einer Region (Vienna, 1994).