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## UNIT 10 INDUSTRIAL CAPITALISM IN FRANCE AND GERMANY

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### 10.0 OBJECTIVES

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After reading this unit you should be able to:

- make out a different pattern of industrialisation in Germany and France as compared to England,
- make out that inspite of commercialization of agriculture both in France and Germany, the marked feature here was a peasantry tied to the land. This definitely limited the mobility of surplus population released from land for industry, and
- make out that the emerging industrial bourgeoisie in France and Germany was heavily dependent on the state.

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### 10.1 INTRODUCTION

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The development of industrial capitalism in France and Germany in the eighteenth and nineteenth centuries was directly influenced by the character of industrial capitalism in England. However, in its intensity and in the factors which were crucial to it, there were important variations. As in early eighteenth century England, major enclaves of commercial activity existed in the territories of the French crown and in the German states in mid-eighteenth century; and this was true of Spain, Italy and the Netherlands. These enclaves must be associated with the processes generated by the commercial "world system" of the previous three centuries and the complexity of material life, which had produced demands that were being satisfied by production on capitalist lines. For various reasons, however, industrial capitalism in such "enclaves" did not develop as the equivalent in London, Liverpool, Bristol and Manchester did, during 1740-1840, although, in the case of France, the Netherlands, Rhineland, Germany etc., they were surrounded by agriculture which was as specialized and sophisticated as English agriculture.

Several decades ago, as mentioned above, Alexander Gerschenkron attempted to detect general patterns in the manner in which such "backwardness" altered. He stressed the continuous preoccupation with the state of "backwardness" in Europe, accompanied by the emergence of certain special agents - initially the state, later major banks - which hastened capitalist development. Although imaginative, there has been so much ground that Gerschenkron's patterns did not cover in Continental industrialization that their importance has not endured substantially. They remain, however, the only major attempt to devise a special model for European industrialization; and they are, hence, (as they will be here) a reference point still for discussions of the development of industrial capitalism on the Continent.

Given the recent convincing stress, however, on the long term growth of industrial capitalism, well before it acquired its authoritative position in mid-nineteenth century, discussions cannot be confined to analyses of how European states responded to "backwardness" or inadequacy. The development of industrial capitalism must be seen in a broader perspective.

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## 10.2 FRANCE

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A number of features, which contrast with the conditions of 18th and 19th century England, have traditionally been attributed to the character of the development of industrial capitalism in France. Among these features, has been the association of the country, during the formative period of the eighteenth century, with the habits of the "Ancien Regime", i.e. with the prevalence of customs and conventions which were not strictly conditioned by productive and commercial considerations. Linked to this was the association of France with "peasant" agriculture, which survived the Revolution and Napoleon (1789-1815): it stressed immemorial custom and subsistence, rather than extensive commercialization. Further, it lacked certain resources like coal and iron, which underpinned the extension of the influence of industrial capitalism in England.

In such circumstances, the economic historian Tom Kemp has argued, the slow growth of industrial capitalism must also be linked to the character of the French bourgeoisie, which he associates with preferences for rentiership [note to editor: special note in vocabulary], and professional and bureaucratic position. Kemp contends that the ascendancy of this class in Revolutionary and post Revolutionary France was crucial to the slow development of the authority of industrial capital in France. Revolutionary land settlements, which prevented the accumulation of land in the hands of great magnates, allowed such a situation to persist. The land settlements also gave peasants a firm stake in small-scale proprietorship: a phenomenon which acted as a brake on the formation of a pool of industrial labour and maintaining extensive demand for the production of small workshops operating on backward technology in small towns.

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## 10.3 THE EIGHTEENTH CENTURY BACKGROUND

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Like England, the territories of the French crown, in the eighteenth century, registered substantial increases in population (between 1700 and 1770, population increased over the country from 20 millions to 25 millions), considerable interest in commercial agriculture and the thriving development of major centres of industrial production. However, the pace of growth and the incorporation and scale of innovation, here, was not as substantial, and this requires explanation.

### 10.3.1 Agriculture

The broad outlines of agricultural development and change would be as follows. At the time, most land was in the hands of seigneurs or landlords who were sometimes powerful noble magnates but who might equally be lesser squires with impeccable noble pedigree. Their estates were divided into two segments, one for direct cultivation by the nobleman using hired labour, and the other, the area in the hands of their "peasants". These had no rights of ownership, but had been associated with the estate for several centuries. Many of them had rights of tenure which practically made them proprietors in their own right, especially in the Alpine and Pyrenees regions; in other cases a fixed monetary payment (*cens*) had to make to

the seigneur at fixed times as a form of quit-rent. Others, known as *mainmortables* could pass on their land only to their direct heirs, but otherwise, their situation was like that of other, more powerful peasants. Cultivation of land in the greater part of the northern reaches of the country (from the south of the Cotentin peninsula, through Maine, Touraine, Orléanais, Nivernais, Berry and into south Burgundy) was dominated by the open-field, although rotation of crops varied. South of these regions, most land was enclosed (both among peasants and seigneurs). Some of the country was remote, yet sufficiently fertile to provide adequate living; others were desolate unreclaimed bog and marsh, as in the case of the coast of Gascony and Guyenne, or dominated by soil which was not very fertile, as in much of the Central Massif; and still other land was immensely rich and commercialized, as in the Garonne valley.

Major improvements in cultivation were introduced in many regions and especially in the north east, i.e. French Flanders (where innovations in agriculture in Holland and Belgium had initially made their way to England and were now quickly disseminated). Knowledge of "improving methods" which were prevalent in England and elsewhere came to be known through publications such as Duhamel du Monceau's 6-volume introduction to improving agriculture (published 1751-60), through cheap literature and by word-of-mouth. The information was a focus of discussion in the learned societies (academies) of provincial France; and major royal officials, such as the Intendant of the Limousin, Turgot, and other "physiocrats", who were concerned with improvement of agriculture, attempted to give the details wide publicity.

Partly as a result of the application of "improving" techniques, a substantial increase (over 40%) in agricultural production was registered during 1725-1789. Le Roy Ladurie links the development specifically to the increased cultivation, on reclaimed land, of food crops which did not require that land be kept under fallow, and whose popularity increased with the knowledge of improving agriculture. Such cultivation also released land for cash crops - primarily fine cereals and vine, which were established products of cultivation in most of France. This feature in turn increased commercialization in a rural economy where specialization was already well-established and where regular exchange of goods between regions was normal. Meanwhile, a number of major improvements in transport (in Languedoc, Burgundy, Provence, Brittany and Auvergne), brought costs of commerce down and intensified commercialization further. These improvements centred around major works such as the canal network of the south (the Canal du Midi).

The upshot of this range of changes, during the eighteenth century, was a fall in prices of agricultural goods across the territories of the French crown, of 60-80% during 1730/39 - 1780/89 for most goods, and in some cases of 100%. This was a development which benefited the innovative landowner. The fall in prices and costs also benefited various types of enterprising peasant cultivator, who had substantial fixity of tenure on seigneurial holdings. It could also benefit various *mainmortables*. For even here, where land tenure was relatively secure, these least privileged of cultivators could, on the surface of it, benefit from low prices, at a time of low costs, provided they interested themselves in intensive cultivation and occasional involvement in agricultural or artisanal labour (where wages increased in the same period by 25-30%).

A major problem, here, as Le Roy Ladurie points out with considerable documentation, was that fixity of tenure could only guarantee a modicum of security to most French cultivators at a time of population increase. True, only land in the seigneur's direct cultivation was subject to direct proprietorial action and the majority of cultivators could not be dispossessed since the seigneur's control was indirect. However since much cultivation on peasant land was still based on the three-field rotation in an open field, improvements were difficult to initiate on smaller holdings and strips. Here, and on the standard and smaller peasant holdings of the West, where the open field was less known, land was increasingly insufficient to provide the requirements of a growing family. Peasants were driven to share cropping (*métayage*) or to renting lands under the seigneur's direct control. With population growth, rent rose about 142% for the period mentioned above. Tax and tithe increases (60% and 25-30% respectively) increased the burden on peasant incomes still further.

As a consequence, although commercialization in agriculture was substantial, and major surpluses of grain were available for growing urban populations, large fluctuations and



disparities in income levels were a feature of the French countryside, as was dire poverty in certain quarters. This explains the two (apparently contradictory) features noticed by Arthur Young, the contemporary English traveller, and the historian and philosopher, Alexis de Toqueville, in his work of the 1850s. De Toqueville argued that on the eve of the French Revolution (1789), the economic position of the French peasantry was improving, while Young pointed to extreme poverty and backward agriculture by Young, for the same time in entire regions of the country.

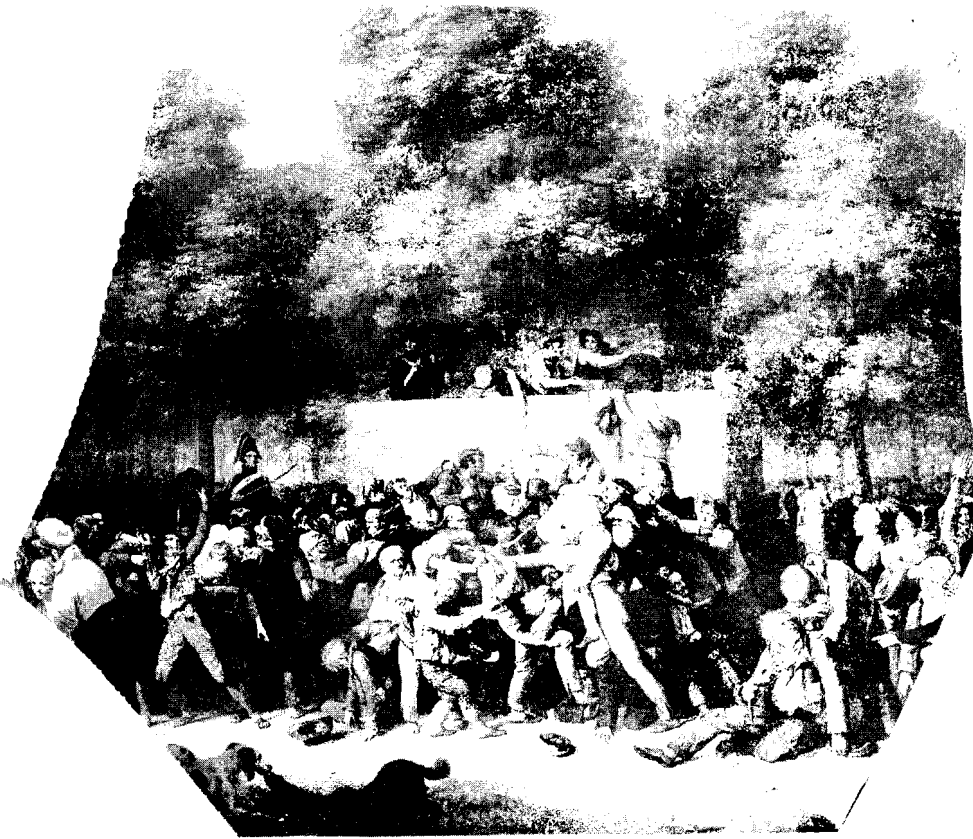


Fig. 1 : Queing Up for Food : The Urban Poor in Early 19<sup>th</sup> Century France

### 10.3.2 Trade, Industry and Manufacture

The marketing of agricultural products and their processing clearly generated centres of employment outside the business of ordinary cultivation: in the milling of grain on a large scale, the production of wine, the transport, storage and distribution of such products etc. Although the intensity of market orientation varied across France, from high levels in the north and east (the areas of the Nord and the Franche Comté) to the low levels of Brittany, and interior Gascony, far from the Garonne Valley, major communities and townships grew around the trade in agricultural goods.

Major fortunes were to be made in this trade; to these were added the profits of trade in such products with Italy, Germany, Spain, or across the Mediterranean, from Marseilles, and along the coast of the English Channel. French ports thrived on such exchange, and shipping industries developed to further the trade. Clearly important here were towns such as Bordeaux (which was crucial to the trade with Canada and the French West Indies) and Marseilles (which took on the full range of trade with the Levant in particular and the Mediterranean in general). The French crown, moreover, following mercantilist policies, would only allow transport from its colonies in French shipping, which reinforced the strength of this industry still further.

Other commercial and industrial centres, meanwhile, thrived, until the French Revolution and beyond, around the production of iron, at Le Creusot (established with crown patronage in 1782), and around the great coal pits at Anzin on the Belgian border. Extensive coal mining was also to be noticed in the upper Loire, near Lyons (where the more substantial pits of this time were established). The production of cotton piece goods, often with the use of English machinery, flourished during the eighteenth century in Lille, Amiens and St. Denis in the

north and northwest, at Lyons (on the Rhône/Saône, in central-western France) and Mulhouse (in Alsace). The production of fine wool (especially worsted) gathered pace following the local breeding of merino sheep, in the area around Rheims. In the case of textiles, the bulk of production formed around "putting out" arrangements that were customary in England earlier in the century.

A rapidly-growing internal market for manufactured goods, though, was not a feature of this development; for this was prevented by major problems of trade within the country, and the problems of industrial organization and capital availability (leave alone problems of low peasant incomes). Such a situation, in turn, led to the persistence of small-scale manufacture and regional markets for industrial products in the form of industrial capitalism that developed in France during the 18th century.

The cardinal features of the problems here are well known. The country was far from uniform in its administration, and could not strictly be treated as a well integrated market by traders and producers. Some territories were subject to different taxes (e.g. for the payment of the salt tax, they were divided into the areas of the grande and the petite gabelle) and also differed in the very system of tax payment. Territorial rights were different (some areas having rights to "estates" [note to the editor: special note], while others only had parlements [note to the editor: special note]); and even legal arrangements were varied (Roman Law in the south of the country, unlike the north and centre). Again, industry was curbed by guild restrictions, which prevented the easy implementation of innovation in established manufacturing areas. Guilds had privileges in most central areas of towns, and they had ready access to markets, while non-guild members faced discrimination in the location of their enterprises and in attitudes of the royal administration. Finally, country banks were not available in the country, as in the English case, and capital for industrial growth had to be found from established traders or producers (which limited the scope of the enterprise).

An important additional problem which discouraged the fostering of trade and manufacture in such circumstances was the poor status enjoyed by its practitioners. Unlike England, the practice of trade and manufacture attracted social disapproval among the French elite, among whom status by privilege, either through venal offices (i.e. official positions which could be bought), or through titles of nobility. Communities such as the Quakers, who prided themselves on their tightly-knitted quality and who were featured prominently among capitalists, were not to be found in such authoritative number in French territories.

The significance of such cultural incentives and disincentives to entrepreneurship, however, can be overstated. For the rich centres of Bordeaux, Marseilles and Paris were good testimony to the response that trade and manufacture inspired at this time.

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## 10.4 THE REVOLUTIONARY AND NAPOLEONIC PERIOD

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A considerable portion of the political and social reconstruction of France during the 1789-1815 period had major economic repercussions, and affected the position of industrial capitalism within the country. The broad contours of the changes have already been discussed in the section on the French Revolution, however, and only certain salient implications require to be drawn out here. Hence, although the matter had important results for the creation of a national market, this section foregoes a discussion of the implications of administrative reorganization (the abolition of the variety of legal and other distinctions over the country) associated with French Revolutionary legislation and Napoleonic measures. The section also bypasses the introduction of the Code Napoleon, which gave the country a uniform legal system. Aspects of these issues must, however, be subsumed under the two major themes of the period which require some attention and must find discussion, since they were decisive to the consolidation and extension of industrial capitalism. These include the attack on privilege and the consequent changes in land tenure, and the abolition of guild structures. And, equally important, the impact of war and expansion on trade and production.

### 10.4.1 The Attack on Privilege

The concerted legislative and social attack on privilege, during the Revolution, was initially characterized by the renunciation of privileges by the nobility (4th August 1792) and the

violence in the countryside during 1789. Thereafter, the decision of 10th August 1792, that all seigniorial rights to monetary dues had to be backed by the evidence of charters, intensified this attack; and the internal conflict in the country during 1792-94 carried the attack yet further. These developments once and for all established the proprietorial status of wealthy peasants, and led to a major redistribution of property in the countryside.

The consequences of the emigration of the nobility, and the confiscation and sale of their lands, added a further dimension to the redistribution of property, although the redistribution here was not equal in any manner, since the sale of land primarily benefited bourgeois who wished to invest in land and the wealthier peasantry. The decision to abandon the traditional direct taxes of the Ancien Regime (the taille, the capitation and the vingtieme), which were paid by the peasantry and the bourgeoisie primarily, improved income levels in the short term among the peasantry. In the case of industrial enterprise, the ban on the guilds of the old order loosened the restraints on innovation and enterprise in industry.

#### 10.4.2 The Impact of War and Territorial Expansion

The benefits of much of this for the growth of industrial capital, however, were modified by inflation which resulted in the period 1789-1797 from the crisis of the state's finances, as a consequence of the bankruptcy of the Ancien Regime and the lack of revenues which was a consequence of the reorganization of taxation. Enormous losses of life in the revolutionary wars also led to shortage of labour, which was crucial to a labour intensive economy. Manufacturers' attempts to resolve their problems through the import of machinery from England was made difficult by the hostilities between France and Britain. Much of this was balanced after 1797 and the territorial expansion of the French state under Napoleon - an expansion which not only ensured the flow of tribute to the country, linking its currency with that of the conquered territories, but which also provided a preference for French manufactures and producers in the Cisalpine Republic, the Helvetic Republic, the Batavian Republic and their later successors in the Italian Kingdom, the Kingdom of Holland, and the Napoleonic states of Germany. The imposition of the Continental System on Europe after 1806 further assisted French manufacture, especially as Napoleon ensured that this was accompanied by measures to acquire machinery by overt and covert means from England. British goods were excluded from continental markets, at the time of the ascendancy of Napoleonic administrators, and hence French manufactures had a field-day. The debit side of the system was the loss of American markets as a consequence of British blockade of European ports, and the collapse of major centres of the Atlantic trade, such as Bordeaux. Furthermore, innovation in various sectors of industry in England could not be introduced in French industry as might have otherwise been possible. Hence, the country was poorly prepared for the re-entry of British goods into Europe after 1814.

#### 10.4.3 Protectionism and its Consequences under the Restoration and Orleanist Monarchies (1815-1848)

The sudden influx of cheap goods from England after the end of the Napoleonic Wars immediately led to decline in demand for many items of French manufacture on the Continent, and confronted producers with the possibility of bankruptcy. It was almost natural, therefore, that the government of the country's Restoration rulers (Louis XVIII and Charles X), turned to a continuation of Napoleonic and pre-Revolutionary policies to "protect" national industry. A regime of high duties on goods of foreign manufacture was imposed by the tariff of December 1814. Substantial duties (which represented an increase of between 10% and 50% on previous duties) were imposed on linen, hemp, and iron. Import of cotton goods was forbidden and special taxes were levied on the import of grain. In the colonies, all trade with foreigners was forbidden, transport of goods was restricted to French shipping and refining of raw materials (such as molasses) was banned to give French industry a monopoly in the area. Various advantages were also given to the French merchant marine. The policy was set in motion by the first Finance Minister of the restored Bourbon monarchy, Baron Louis, and it was extensively justified by important theoreticians - Charles Ganilh, F.L.A. Ferrier and Louis Say.

The consequence of such measures, clearly, was that the national market was "protected" for French producers; but it made the lot of those who benefited from foreign trade difficult, since they were unable to cope with the low prices of British goods. Import of machinery



from Britain became a necessity in the circumstances, and the dearness of such import led to major criticisms of the protective tariff from some quarters by 1828 on this score. The fear of British competition however, ensured that no steps were made for any broad-ranging introduction of free trade.

It required the growth of industry, during the Orleanist monarchy, to make it that these demands for relaxation of protection grew stronger. Such growth within the country's protected market, began to look for technological improvement and cheaper imports to increase profits; and it also understood the possibility of using geographical advantages and imported machinery to develop the foreign market for French goods in territories neighbouring France. The leading arguments for the relaxation of protection came from Frederic Bastiat (1801-1850), who organized the *Association pour la Liberté des Echanges* (1845) [Association for Free Trade], with branches at Bordeaux, Paris, Marseilles, Le Havre and Rheims; and the arguments were stated in the *Journal des Economistes* (founded in 1841). Demands for free trade coincided with the arguments of Comte, Proudhon, and Louis Blanc that there should be a degree of state regulation of runaway market forces, but one position did not always exclude the other, the period witnessed a distinct increase in the prevalence of free trade opinion.

Industrial growth of the 1830s and 1840s underpinned this trend. This growth was connected partly with the increasing mechanization of the textile industry both in Normandy and in Alsace. In the latter, growth was more intensive, the new spinning industry counted 500,000 spindles in 1828 and 1,150,000 in 1847, and the power loom came to be used widely during this period. Elsewhere, the coal industry, in its traditional centres on the Belgian border and the upper Loire, expanded substantially. In the case of the iron industry, Le Creusot was substantially reworked with English machinery by the English company of Manby, Wilson and Co., between 1826 and 1836, and finally developed considerably by the Schneiders thereafter. At Fourchambault, the experience of M. Dufaud, who had wide knowledge of English methods, was extensively applied after 1822 by a partnership, and at Decazeville (in the far south), there was also substantial improvement in production.

Overall growth followed a greater flow of capital into industry after the establishment, from 1837, of *sociétés en commandites*, based on a form of limited liability, by the *Caisse général du commerce et de l'industrie*, owned by the banker Lafitte. In the railway boom which followed after 1842, and the supply by the government of land for private railway construction, once companies guaranteed arrangements for building and rolling stock, under the Dufaure law, these societies played a leading role, drawing increased shares and supplying capital to railway companies. Traditional sources of capital also followed suit and contributed to industrial growth, and the "conservative" bankers of Paris, the Rothschilds, controlled some eight lines by 1848.

In all this much production still focused in small units, however, which explains the popularity of protection until 1848; and that production was dependent on less productive water power. Many of the old charcoal blast furnaces thrived in the 1815-1848 period, and their number grew till 1839, since the fuel was in ample supply in contrast with the situation in England. True, the manufactures on the English style registered impressive rates of growth in terms of output and scale of employment, and they were an area where major investment was to be found. But it is telling that the first railway lines could not in any way be built with French home production, and either iron production had to proceed with construction, or large amounts of rail had to be imported from England. The greater number of industrial units in the country continued to be water-powered until 1848, even though there was a substantial increase in the application of steam power in the coal industry especially. John Clapham points out that in 1839, the English cotton industry used 1641 steam engines and 674 water units, while, a little later, the French used 243 steam and 462 water installations. Again, in 1839, the English textile mills used more steam power than all France used in 1848.

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## 10.5 INDUSTRIAL CAPITALISM 1848-1870

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It was a consequence of the availability of gold throughout Europe during the period following the revolutions of 1848, and a continuation of the railway boom until c.1860, that extensive capital investment in the standard areas of growth at this time - textiles, coal and

iron and railways - became possible in France. And this in turn stimulated the changeover from water-power to steam power in large sections of French industry, and a general move away from charcoal centred iron production to coal-based production. The period witnessed the extensive exploitation of the coal deposits of the Nord and the Pas de Calais, which now became the country's prime source of the fuel, although much of it was not suitable for smelting since it could not produce coke. In 1852, of a total national coal output of 5,000,000 metric tons, the North basin produced 1,000,000 metric tons compared with 1,640,000 in the upper Loire (Le Creusot and Blanzy produced 400,000 and smaller deposits the rest). While, in 1869, of a national production of 13,000,000 metric tons, the North produced 4,300,000 compared with 3,100,000 in the upper Loire. Elsewhere, output of pig iron increased dramatically (1,400,000 tons in 1869 compared with 600,000 tons in 1853); steel production increased substantially to 1,000,000 tons in 1869, incorporating Bessemer techniques and ranking second to international production to that of Britain. In the latter case, the main production was at St. Etienne (the Terre Noire company and the enterprise of Petin Gaudet), at Le Creusot (in the Schneider enterprise), in Lorraine (in the various enterprises of the de Wendels) and in Niederbronn in Alsace (in the Dietrich enterprise). Established companies at Commentry and Fourchambault (on the Belgian border) and Anzin and Denain in the north, continued to concentrate on iron production.

In the case of the cotton industry, while the conditions of enterprise remained static in the area of Normandy and the Lille district (where hand weaving predominated into the 1860s and beyond), production in Alsace reached the same level of mechanization and sophistication as Lancashire by 1870. Alsace produced improvised power machinery which could compete with England's; and what held good for cotton also held good for wool, where expansion was based in this period on imports of Australian clip.

Beyond international circumstances, though, much of the increase in production here was the consequence of the interventionism of the Bonapartist state under the Second Empire. Here, government encouragement of growth, prompted by Napoleon III's Saint Simonian principles, was evident in the official assistance to the creation of the Credit Foncier (a national mortgage bank) and the Cr dit Mobilier (a joint-stock bank dominated primarily by the Pereire brothers). Both were set up shortly after Napoleon became President, and the latter speculated extensively on the bourse and invested its profits handsomely in industry. Following their example, a number of credit institutions were born during 1850-1857, of which the Cr dit Lyonnais was the most famous. As Gerschenkron points out, the activities of these state-sponsored or state-encouraged banks brought more "conservative" banking houses, such as the Rothschilds, which had hitherto dealt in government bonds and land mortgages, to take an interest in industrial banking. This great period of economic growth, therefore, came through the active interest of the state, even if it witnessed minor acts of free trade, in the Cobden Treaty, which relaxed various duties on imports from England, to placate lobbies mentioned in the previous section. The interest cannot be compared with that of the British government of the end of the 18th century: for it was more forcible and well-directed. While hardly "managerial" such interest was substantial and significant in the extreme.

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## 10.6 FURTHER DEVELOPMENT OF INDUSTRIAL CAPITALISM 1871-1914

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Following the defeat of France in the Franco-Prussian War (1870-71), a general impression prevailed for several decades that the country experienced a decline. However, the impression always bore reference to comparisons with Germany and the United States (where productivity rates grew more quickly and population increased more rapidly). Or it bore reference to rates of growth of the past, when combined rates of growth for industry and agriculture were higher for 1815-1870 than for 1870-1914.

At the time and thereafter, commentators understated the importance of changes in the French economy and the strengthening of industrial and finance capitalism in the country. The proportion of the labour force employed in agriculture and forestry fell from 53% in 1870 to 37.4% in 1913. The productivity of labour continued to rise and the national product increased (after sluggishness until 1895, by 1.8% per annum during 1896-1913). Per capita, the value of exports and imports increased two-fold. Savings in the country increased, while the volume and investment of capital in enterprise outside the country grew considerably.



Much of this change integrated economic activity in Africa and South East Asia where France had colonies in West Africa and Indo-China.

General indicators of industrial growth are provided by the following figures

**Average annual rate of growth of output of specific industries in France (%)**

| Period    | Iron and Steel | Coal | Cotton |
|-----------|----------------|------|--------|
| 1860-92   | 2.58           | 3.24 | 1.52   |
| 1892-1913 | 4.01           | 2.04 | 1.92   |

(Source S.B. Saul and A. Milward, The Development of the Economies of Continental Europe (1977))

In addition, it is worth mentioning that the country showed substantial headway in research and development in the fields of chemicals' production and the electrical industries, which were prominent areas of growth at this time in Germany and the USA. For soda and sulphuric acid production, introduction of important innovation (e.g. the Solvay process for soda manufacture) was standard, and the St. Denis company made significant strides in dyestuffs' research and manufacture. In electricals, American and German companies such as Thomas-Houston and Siemens undertook production in France, while the French firm of Breguet undertook telegraph and telephone equipment manufacture. Herault's use of electrolysis for the manufacture of aluminium was one of the many innovations of the time. A proportion of electricals' production was used for motor car production, where the French firms of Panhard and Peugeot competed with the German firms of Otto and Benz, and even withstood competition from Ford until the 1900s.

In general, the loss of Alsace and Lorraine in 1871 (to Germany) was less significant for French industrial capitalism than may initially appear the case. True, the textile innovation of Alsace was now within the German tariff and territorial area. This led to a pass off of spin-off effects in the region to Germany mainly. But firm links between erstwhile French manufacturers in Lorraine, and other French companies, survived the integration of the area into Germany. Hence, co-operation between the great steel and iron producers of Lorraine, the de Wendels, and the Le Creusot company of Schneider, led to use of the Thomas-Gilchrist process of steel manufacture on both sides of the border, despite de Wendels' possession of the rights of the process from 1878 to 1895.

**Check Your Progress 1**

- 1) What is the major factor identified by the historian Tom Kemp as a cause of slow industrial growth in France?

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- 2) What were the early restrictions faced by trade & manufacture in France?

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3) What was the impact of the 'attack on privilege'?

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4) What were the reasons for the demand of relaxation of 'protectionism' during the Orleanist Monarchy?

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5) How did Napoleon III encourage the growth of industry?

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6) What was the impact of the loss of Alsace and Lorraine to Germany in 1871?

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## 10.7 GERMANY

The German states until 1871, and thereafter the German Empire, were another major focus of the growing authority of industrial capital in Europe in the eighteenth and nineteenth centuries. Here, there were major regions of industrial activity, which depended on master craftsmen, the guild and the putting out system, during the eighteenth century. The region also provided instances of innovative agriculture (especially in the Rhine valley). However, many circumstances hindered economic growth of a more substantial nature. Availability of labour was poor for much of the eighteenth century in certain areas - the consequence of heavy mortality during the wars of the time (the War of the Austrian Succession and the Seven Years' War). The territory of the German states, moreover, did not provide manufacturers with a well-integrated market, since each state had its tolls and duties, and transit required the payment of these. In the eighteenth century, the mechanism of the Holy Roman Empire did nothing to alleviate this situation; and the same must be said for the German Bund after 1815. This was a formidable problem, given the existence of over 300 states of various types - although the extent of the problem was limited by the largeness of some of these territorial units. Other problems were also of significance: the quality, for instance, of the coal and iron deposits in the region (which were dissimilar to those found in Britain, and which could not benefit as effectively from the development of the coking and puddling processes). In the East of the region, labour mobility was severely restricted by the prevalence of serfdom. Capital supply was, unlike Britain and like France, limited to the

wealth of powerful traders and manufacturers, and could not call on a wider network of availability of capital. Finally, paternalism in the German states, which, in order to prevent destitution, restricted the residence-rights of those from outside a region and backed guild arrangements, also limited labour mobility and inter-regional enterprise.

Such problems became of decreasing significance with the Serf Emancipation in the 1800s, the creation of the Zollverein (the Prussia-centred customs' union) in the 1830s, the dismantling of paternalist conventions in 1848-49, and the creation of joint-stock banks on French model in the 1850s. Together, these developments lay the foundation of the industrial boom of the middle decades of the nineteenth century, and, following the formation of the German Empire, industrial capital systematically developed on this basis.

### 10.7.1 Agriculture in the 18<sup>th</sup> Century

In the greater number of the central and eastern German states, the War of the Austrian Succession and the Seven Years' War severely depressed the production and productivity of agriculture. Crops were lost, livestock destroyed and manpower severely affected: hence, any improvement in cultivation that was to be noted in the pre-Austrian war period and during the inter-war period, was wiped out during periods of conflict. It was after 1756 that major increases in agricultural production without serious ruptures became noticeable. The figures were almost wholly indicative of the reclamation of land and the settlement of migrants in areas that had suffered devastation. Such settlement was especially characteristic of the policies, in Prussia, of Frederick II, who encouraged the settlement of royal possessions, giving the cultivators extensive rights. Meanwhile, settlement by free peasants in marshland on the Baltic coast continued at this time; and similar settlement was to be found in the forest colonies at the end of the North German Plain.

The institution of serfdom, which conditioned control of much land-holding in the eastern regions of the German states - the greater part of which belonged to Prussia - ensured that the land that was recovered after the Seven Years War was regularly cultivated. The institution established ownership of land in the hands of major lords of the manor (Junkers, or Rittersgutsbesitzer), and required that peasants settled on the land obtain the permission of the Junker to move away. Runaways who ignored these stipulations were efficiently pursued and seized; but "running away" itself was not so common, since generous rights were conferred by Junkers on the more competent and well-endowed among the peasantry. Junkers made a distinction between those who had ploughing cattle (Spannfähig), those who tilled systematically (Kossuth) and those who made do in various ways (as in the case of cotters, or Hausler).

Improvement in production in the latter half of the eighteenth century, though, was not wholly a consequence of reclamation. It took place in the homesteads of the river valleys (the Mosel, the Main, the Neckar and the Rhine), and on major properties of the West and South West. Here, proprietorship was comparable to France: i.e. it was confined to the nobility, but peasants had fixity of tenure, and, in many areas, the right to inherit. In the south-west, peasants were comparable to French censiers.

### 10.7.2 Trade and Manufacture in the 18<sup>th</sup> Century

Small scale industry, based on putting out and guild organization was a feature of eighteenth century industry in a number of regions of the German states. The major areas of concentration were Berlin, the Rhineland and Silesia (within Prussian territory) and Saxony. The state played a major role in encouraging the development of concerns in the Prussian case; and, from about 1720 to about 1790 it recruited a small group of competent businessmen as managers for industries which were of special interest to the government. The king attended to industries such as cutlery, sugar refining, metals and munitions. Of the concerns, Splitgerber and Daum of Berlin were the most important and dealt with war industries, and, like other concerns of this type, depended substantially on state patronage and demand.

In Silesia, the state appointed directors to boards of companies; and it retained substantial control over mining especially, which was exercised by von Heinitz (head of the Prussian industrial and mining agency) and Graf von Reden (who exercised charge of industry for Silesia). Reden travelled extensively in Britain, and, thereafter, introduced the puddling



process in Silesia a little after it had come into use in Britain, as well as coke furnaces at other production units and a steam engine at Friedrichsgrube (for a lead plant). Reden also brought the brother of the British iron manufacturer, John Wilkinson, to Prussia, to manage the Silesian ironworks, the Malapane Hutte (established in 1753).

## 10.8 SOURCES OF CHANGE

The character of capitalism in the region was decisively influenced by official measures that were taken in the area during the period 1789-1815. These measures took the form of copies of French legislation, in areas which were under the direct administration of France's revolutionary or satellite governments - such as the Rhineland, and, later the Kingdom of Westphalia. Or they were the result of attempts to alter the nature of social relations in order to withstand the Revolutionary and Napoleonic onslaught. Almost all areas also benefited from the exclusion of British goods from the Continent during the time of the Continental System and the British Blockade of Continental ports (1806-1813).

### 10.8.1 Legislation of the Revolutionary and Napoleonic Period

In the first case, the industrial settlements of the Rhineland underwent the dismantling of the guilds, and the abolition of their privileges - which improved the status of competitors in a number of industries and gave greater scope to innovation. The Continental system increased demand for the products of this region, and, despite French exactions, the towns of Julich, Krefeld, Aachen, the Wupper Valley and the Duchy of Berg, witnessed a boom in the 1800s. Trebilcock points out, in this regard, that between 1800 and 1807, the number of Aachen's woollen factories increased by a factor of five, and exported extensively to Russia and Spain.

Emulation of Revolutionary practice in order to rescue a state of the Ancien Regime, occurred in Prussia, where serf emancipation was clearly designed to alter relations between lord and peasant, and peasant and state. Despite their immediate impact, the institutional configuration in Rhineland would ultimately be forced to coexist with guilds elsewhere in Prussia after the territory was restored to the kingdom in 1815. The impact of serf emancipation, though, in Prussia was limited but decisive and ubiquitous.

Here, the Emancipation Edicts of 1807-1808 (inspired by the minister von Stein) established



Fig. 2 : A German Smallholding, 1897

the serf as free, but gave him no rights to land. Further measures, taken under the supervision of minister Hardenburg, in 1811, provided that serfs who had rights of inheritance on Junker property would lose only one third of their holdings, while those who did not have such rights would cede one half of their holdings; possessors of very little land were to pay rent. A settlement process of several years, though, was established for fixing serf rights of property, permitting the old dispensation to continue until such fixation should occur. In 1816, finally, it was decided that regulations regarding property where peasants possessed cattle; and no compulsion to regulate property arrangements was envisaged until 1850.

The legislative measures, however, coincided with the creation of Rentenbanken which provided landowners with redemption payments and peasants with arrangements to pay over a tolerably long period. Depression in agriculture, moreover, accompanied the fall off in demand all round after 1816, and, hence, a certain amount of land did change hands. The Emancipation decrees extended the impact of earlier measures to make an extended land market possible, since their terms allowed rich tenants and others (hitherto "serfs" and precluded from land purchase), to buy land. This in turn allowed greater commercialization of agriculture than had been possible in the past. That commercialization in turn assisted the improvement of agriculture in the eastern lands once the depression was over.

### 10.8.2 The Zollverein

Crucial also to economic growth after 1815 was the gradual development of large regional markets in the 1820s, before the formation of the Prussia centred Zollverein (Customs Union), in 1834. This development removed the many hurdles facing distribution of manufactured goods in the area of the German states - a phenomenon which dampened the growth of industrial capitalism in the area since the only alternatives for producers was the protected French market or the excessively competitive English market. The regional units created in the circumstances were:

- a) the Prussian market, under the tariff of 1818, which established low duties on raw materials, heavy duties on "colonial goods" such as coffee or tea (of 20%), a low duty on manufactured goods (10%), and high duties on goods in transit
- b) the South German League (formed 1828) of Bavaria and Wurtemberg
- c) the Central League (Saxony, Hanover, the Thuringian states, Coburg and the Hanse)
- d) From 1834, Prussia, basing her initiative on a powerful geographic position (her territories stood astride the highways into Poland and Russia and divided the fair towns of Frankfurt and Leipzig, while she controlled both banks of the lower Rhine), persuaded other states to form a larger market through customs agreements with her. All states, with the exception of the Hanse towns, Hanover, Holstein, Mecklenburg and Oldenburg joined this "Zollverein", which extended the terms of the Prussian tariff of 1818 (with minor amendments) to all member states.

### 10.8.3 The Railways

Within such a system of trade agreements, the development of railways in the German states acted as a major stimulus to production and innovation in the enclaves of iron and coal production in Silesia and in the Rhineland. Railway lines allowed the extension of a home market which was reasonably well-knit around the internal river system based around the Rhine, the Elbe and the Oder, all of which had canal networks working off them.

Railway construction began in the 1830s, following extensive discussion of the subject in Prussia and Saxony, with protagonists of railway construction ranged around Friedrich List and Friedrich harkort of Wetter and antagonists centred around the advisor to the Prussian King, Christian von Rother. Private lines dominated the development in Prussia (with lines built in 1838, 1840, 1841, 1843 and 1848), while state construction of the railways was the rule in Bavaria and Baden. By 1850, 3660 miles of track were in operation, and the expansion continued exponentially thereafter.

In the iron and coal industries, in such circumstances, growth with foreign assistance now moved ahead. The main centre of increased coal production was Upper Silesia, although the

state-managed fields in the Ruhr and the Saar were also important. Iron ore output increased during the period 1838-1850 from 266,000 tons to 545,000 tons.

#### 10.8.4 The Growth of Joint-Stock Banks

Much of this expansion was possible because of the development of joint stock banks in the German states on the model of the *Crédit Mobilier* in Paris and the *Société Générale* in Belgium. Hitherto, industry had had to rely on plough back, merchant capital, or the "conservative" banking houses of the area, who preferred to lend to the government or to landowners (houses such as Schaffhausen or Rothschilds). However, with the formation of the Bank of Commerce and Industry, a new model for capital investment was established. This was a banking house set up by Moritz von Haben, a banker from Karlsruhe, with backing from the Cologne bankers, Oppenheim, Mevissen and Deichmann. It faced immense opposition from the Rothschilds, who stood against it in the Frankfurt Senate; it also faced discouragement from Prussian civil servants, who were content to see investment dominated by the Schaffhausen Bankverein in Cologne. Basic capital, though, came from the Pereires, with whom a syndicate was formed, and thereafter, the bank undertook extensive investment in the North German Lloyd Shipping Company, in Austrian railways and in state loans. The formation of a number of enterprises followed:

- a) the Diskonto-Gesellschaft under the leadership of David Hausemann (and later Bismarck's banker Bleichroder, who played a substantial role in raising state loans to the Prussian government through the "Prussian Consortium").
- b) the Berlins Handels Gesellschaft, which brought Rhineland and Berlin bankers together under the leadership of Bleichroder and Mendelssohn (Berlin) and Mevissen and Oppenheim (Cologne). This handled extensive investments in railways.
- c) the Dresdner Bank, the Deutsche Bank and the Darmstadter Bank
- d) the Magdeburg Handels Gesellschaft, which focused on local markets
- e) on a different scale the F.W. Raiffeisen rural co-operative banks (beginning in 1862) and the Schulze Delitzsche Co-operative Bank (involving craftsmen and shopkeepers), which operated primarily in Wurtemberg and more broadly in South Germany.

#### Check Your Progress 2

- 1) What were the initial limitations faced by Germany towards the growth of industrial capitalism?

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- 2) How did the measures taken by the German state between 1789-1815 facilitate the growth of capitalism?

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## 10.9 GROWTH AFTER 1871

After the creation of the German Empire in 1871, the steady growth in industrial production which followed the boom of 1852 continued unabated. The payment of the indemnity from France after 1870 ensured high levels of public expenditure to reinforce the stimulus provided by the increasingly integrated market of the Zollverein. High rates of growth in net domestic product have been noted for the 1870-1874 period, the *Gründerjahre* (foundation years) of the Empire. The slump which followed the financial crisis of 1873, which affected Europe generally, as well as the USA the *Gründerkrise* (foundation crisis), did not ultimately retard economic expansion, although it lasted long (until 1879). Thereafter, demand for railway equipment in the USA, which occurred at the time of the patenting of the Thomas-Gilchrist steelmaking process, which allowed Germany to make extensive use of her phosphoric iron ore resources, led a major period of growth, indicated by the following figures.

Annual average rate of growth of output in German industry 1870-1913

| Industrial sector            | % growth of output |
|------------------------------|--------------------|
| Metal producing              | 5.7                |
| Iron manufacture             | 5.9                |
| Steel manufacture            | 6.3                |
| Metal working                | 5.3                |
| Chemicals                    | 6.2                |
| Textiles                     | 2.7                |
| Clothing and leather working | 2.5                |
| Gas, water, electricity      | 9.7                |

(Source: S.B. Saul and A. Milward, *The Development of the Economies of Continental Europe* (1977) p.26)

It is recognized that, in much of this, the great joint-stock banking concerns acted as an encouraging force, in industrial expansion, and also induced manufacturers to avoid competition and establish cartels and syndicates among themselves, i.e. organizations which established agreements on pricing and production policy in a particular area of manufacture. In reaction to these pressures and other circumstances, the German Steelworks Association, formed in 1904, regulated prices and production of four major steel companies, and a number of other cartels and associations existed at this time. Banking practice during this period was to intervene directly in policy formulation through representatives who were present on the boards of major companies. The ultimate consequence of this regulation was undoubtedly positive in minimizing competition and directing production with firmness - making German industry decisively competitive in the international arena. It had a drawback, however, which was to be felt deeply: it excited desperation in labour which often faced a stout wall in negotiations. This, as scholars have pointed out, led to added violence in industrial conflict and aggravated class tensions in the country by the turn of the century. Under Wilhelm II, the Imperial government attempted to curb the powers of finance capital and industrial capital through direct intervention in economic activity and management: but the sole measure before 1914 was a failure: the government's abortive attempt to buy the Hibernia concern, which was decisively defeated by industry. The result was that, at the time of the outbreak of the First World War, the problems of class conflict generated by concentration did not show any signs of solution.

## 10.10 LET US SUM UP

In this Unit we saw that :

- the France and German industrial capitalism was constrained by a peasantry tied to land on the one hand (fragmented holdings held by customary rights in France and serfdom in Germany) and the dominance of big landed institution, on the other,
- as a consequence of the above, the state played a crucial role in (a) creating uniform legislative measures, (b) financing of industry and (c) in creating a common market,

- in France however an important role was played by the period of French revolution when the attack on privilege loosened the tight grip of nobility and the guilds.

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## 10.11 KEY WORDS

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- Backwardness** : A general term to define in condition of a society and economy which has not yet become modern
- physiocrats** : writers and thinkers of France who looked at land as a major source of wealth of an economy. They also believed that the major agent of improving the productivity of land was the landlord. Industry and trade was secondary to land in providing wealth to an economy

**Monetary Payments:** Payments made in money

- tenure** : the time duration for which a cultivator could work and enjoy the land which was not his own
- Backwardness** : A general term to define the conditions of a society and economy which has not yet become modern.
- Rentiership** : income earned on investments and without engaging in any occupation to continue receiving the income.
- Physiocrats** : writers and thinkers of France who looked at land as a major source of wealth of an economy. They also believed that the major agent of improving the productivity of land was the landlord. Industry and trade was secondary to land in providing wealth to an economy.

**Monetary Payments** : Payments made in money.

- Tenure** : the time duration for which a cultivator could work and enjoy the land which was not his own.
- Paternalism** : welfare by traditional social superiors, eg. Aristocrats, as distinct from charity, philanthropy, and social welfare organized by modern industrial firms or modern state.

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## 10.12 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

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### Check Your Progress 1

- 1) See Section 10.2. You could elaborate as to slow growth of capitalism to the character of the French bourgeoisie.
- 2) See Sub-sec. 10.3.2. You could mention lack of uniform administration, varying legal arrangements, lack of status of trade and industry in France
- 3) See Sub-sec. 10.4.1. You could elaborate how this led to redistribution of property.
- 4) See Sub-sec. 10.4.3. You could elaborate on the needs of the growing French industry.
- 5) See Section 10.5. You could elaborate on the setting up of banking and credit facilities.
- 6) See Section 10.6. You could elaborate on how inspite of Alsace and Lorraine going to Germany industry maintained its ties across the border.

### Check Your Progress 2

- 1) See Section 10.7. You could point to lack of integrated market, quality of coal and iron deposits, serfdom as hampering labour mobility, limited capital supply, etc.
- 2) See Sub-sec. 10.7.1 to 11.