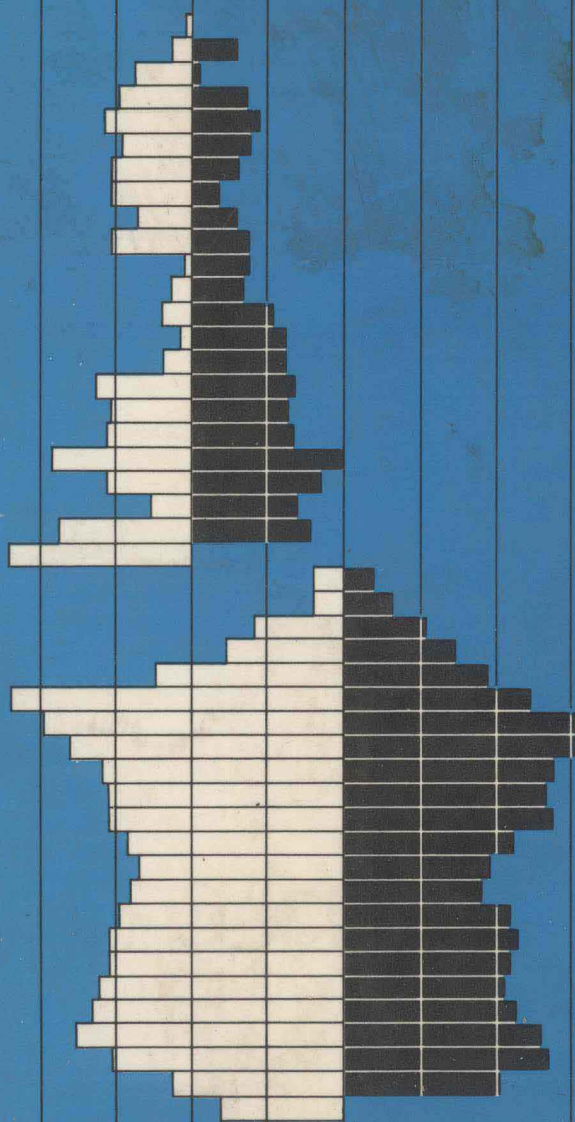




A Clarion Book

Economic Growth in France and Britain 1851-1950



Charles P. Kindleberg

**ECONOMIC GROWTH
IN FRANCE
AND BRITAIN
1851-1950**

CHARLES P. KINDLEBERGER

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PUBLISHED BY SIMON AND SCHUSTER

TO K. S. M.

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I have tried to resist the temptation to strew my prose with French phrases. Apology is offered for the pedantic mass of footnotes; in a work by an amateur historian, however, it is important to make clear to the professional whence various notions sprang. Sources are referred to in footnotes by abbreviated designations; full titles are set out in the bibliography.

One final explanation: I had to stop taking account of recent contributions to the literature at some point, and this I did in 1960 or 1961. The book is seriously deficient, therefore, in that it does not reflect the contribution of three important works which appeared in 1962: H. J. Habakkuk's subtly reasoned *American and British Technology in the Nineteenth Century*, *The Search for Labour-Saving Inventions*, Phyllis Deane and W. A. Cole, *British Economic Growth, 1688-1959*, and B. R. Mitchell (with the collaboration of Phyllis Deane), *Abstract of British Historical Statistics*, all of them published at Cambridge by Cambridge University Press in 1962. One table has been taken from the third at the last minute. But the entire argument is poorer throughout for not having been sharpened against and informed by these works.

It is customary at this juncture for a married male writer to thank his wife, and I am pleased to comply. However, this book is dedicated, in affectionate gratitude, to my mother-in-law.

C. P. K.

Massachusetts Institute of Technology
September 1963

“Il est très utile de se poser des questions, *mais très* dangereux d’y répondre.”—Charles Seignobos

“Ici, le dix-neuvième siècle, ce n’est pas bien dangereux. Mais quand vous toucherez aux guerres de religion, soyez très prudent.”—A lycée professor

[Quotations from Marc Bloch, *Apologie pour l’histoire ou métier d’historien*, 4th ed. (Paris, Colin, 1961), pp. xvi, 10.]

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INTRODUCTION

This study attempts to thread its way between deductive and inductive treatments of economic growth by submitting some partial models of growth and decline to empirical testing. The result is neither analysis nor history. It may nonetheless have value for students of economics as a reminder of the dangerous ease of theorizing without facts or of interpreting facts with too limited theories.

This is not a search for such single-valued explanations of economic growth and decline as "England achieved economic growth only because of its coal, or its middle class, or the mercantile accumulation of capital." Nor would I be brash enough to tackle the necessary task of assigning weights to different ingredients of growth and distinguishing among sufficient, necessary, and contributing causes. Instead I present the models, implicit or overt, which have been used to explain the course of growth in Britain and France in the last one hundred years and attempt to indicate whether the models are relevant and the factors involved significant.

In this volume significance has been rated qualitatively. Time and again as I have worked through the literature, I have been reminded of the familiar story of the blind men and the elephant, the former, each at a separate quarter, variously describing the beast as a rope (trunk), wall (side), tree (leg), and cloth (ear). With vision restored, it may be possible to see the elephant as the sum of these parts, and more; but it would be very difficult to assign quantitative weights to the separate elements. Statistical methods are not used here, beyond the presentation of simple tables. The major technique is the straightforward examination of sources on economic history, and the purpose is to see how effectively the economic models conform to and inform historical fact.

The sources are secondary. I am not an economic historian, nor do I have the temerity to aspire to be one. The badge of an economic historian is won by working with primary sources, not in making syntheses of already synthetic materials. But criticism of economic history, even negative criticism, may not be altogether useless. And it is a thoroughly accepted principle of literature and art, which may extend to history by analogy, that critics need not know how to write, act, paint, or sing.

Little explanation is required for a cross-cultural comparison of France and Britain. Comparison frequently runs between France and Germany, as in the classic study of J. H. Clapham or in William Parker's more recent investigations in iron and steel and entrepreneurship. The Anglo-French comparison as a rule comes from the French side; the British tend to measure their performance against that of the United States or Germany. The French, however, have long adopted Britain as the standard of performance.¹ An American has the freedom to choose as he will. If the comparison has more value for one country than another, it cannot be helped.

The emphasis in my study is on France. Though not intentional, this proved inescapable. Most of the chapters start by addressing a proposition about French economic growth, and, after analyzing it for a number of pages, have too little room left thoroughly to pursue the British parallel, if any, by way of control. Four chapters or so deal evenly with France and Britain, and one on technology gives top billing to the British experience. But the result is not balanced.

The time period selected is easily defended. One hundred years is a good round number. For the beginning year one can support the choice of 1851, the date of the Great Exhibition in Britain, which is variously referred to as the zenith of industrial leadership² or the beginning of Britain's consciousness of the need for scientific education. Rostow, in *The Stages of Economic Growth*, gives 1851 as the culmination of the British "drive to maturity." But 1846 with the repeal of the Corn Laws, 1847 with its Factory Act, 1849 with the repeal of the Navigation Acts, the discovery of gold in California (1849) or in Australia (1851), the beginning of the golden age of British agriculture in 1853 — any would serve as well. And in France one has a choice between the Revolution of 1848, the election of Louis Napoleon as president in the same year, or the coup d'état of December 1851. But there is no need to be precise, for my interest begins in mid-century. At the other end, primary attention stops for some purposes at 1914, for most at 1939, the end of the interwar period; and I am particularly unconcerned with current rates

¹ See, e.g., de Tapiès, *La France et l'Angleterre* (1845); Demoulin, *Anglo-Saxon Superiority* (1899); and Passe, *Économies comparées* (1957). The French inferiority complex vis-à-vis Britain on economic matters carries through right up to 1950. See, e.g., the letter by one F. Herbet in 1858, quoted by Cameron (*France and the Development of Europe*, 1961, p. 327): "It remains for us to prove that businessmen are not more rare among us than soldiers, writers and thinkers, and that it is not only in England that one finds distinguished engineers, clever organizers, intelligent capitalists."

² See Marshall, *Industry and Trade* (1920), p. 87n: "In 1851 [there was the] Great Exhibition at which the whole world learned suddenly how great were the numbers of those things which could be bought in London better or cheaper than elsewhere; and of those which could not be bought at all elsewhere."

of growth. In a few cases, however, it is useful to extend the study to the period immediately following World War II. I want to take cognizance, for example, of the rapid French growth in the 1950s, instead of ending on the despairing note of the late 1930s.

The theme of this work is essentially negative and paradoxical. Big theories of economic growth fail to account for the complex facts of life, and little theories frequently contradict one another. Paradox abounds, especially of course in any subject which touches upon the French. If France suffered from lack of coal, did Britain suffer from too much? Does the head start help — nothing succeeds like success? Or is early success fatal — three generations from shirtsleeves to shirtsleeves ("clogs to clogs" in translation from American idiom to English), and the bigger they come, the harder they fall? The resolution of many of these apparent conflicts turns on disparities in implicit assumptions, including particularly the time span chosen. Did British capital export, extending overseas markets in cotton textiles, galvanized iron, and rails, help or hurt? In the short run, it clearly helped; over a longer period, it may have hurt if it prevented an adaptation of industry to production of commodities with greater long-run growth prospects. One historian says "helped"; another (or sometimes the same one) says "hurt." And the critic's task is not to grade the papers and award the medals, but to understand the basis for the differences.

Still, it is hoped that the value of this exercise is not all negative. The amateur economic historian may have turned up a few leads that the literature has neglected: the existence in complex market structures of external diseconomies which block technical change; regional capital formation in Lorraine and Haute Savoie in a France whose primary capital market was engaged in the diversion of funds abroad; the role of agriculture in the Great Depression in France; the speed with which the British entrepreneur abandoned business for Parliament. The main "positive" theme, however, is the differences between British and French economic aging, rather than growth. I had anticipated that a secular decline in capacity for growth could be detected in the two countries, arising from the increasing inability of a country, once it achieved economic success, to adapt to new situations. This proves true for Britain, but not for France, despite the widespread discussion of economic senility in both countries.³ In Britain it is fascinating to see how many changes in the direction of reduced capacity for growth con-

* All through the period the literature is full of titles emphasizing decline: e.g., Lédru-Rollin, *De la décadence de l'Angleterre* (1850); Mourre, *Décadence économique de la France* (1900); Brooks, *Our Present Discontents* (1933); Pommera, *Grandeur ou déclin de la France* (1940); Hutchison, *Decline and Fall of British Capitalism* (1950); Richmond, *The English Disease* (1959).

verge in the last quarter of the nineteenth century: the loss of technological leadership; the failure of agriculture to adjust to new demand and supply functions; an abrupt decline in the birth rate; the shift of foreign trade from Europe to the dominions and the empire; the rise of foreign lending to the empire at the expense of borrowers in Europe and at home. One might have reached much the same conclusion about France at various times — at the turn of the century when there was a wave of discussion of French economic decadence, later in the 1930s, or even immediately after the Second World War. But here there was no convergence of symptoms of economic decline — rather, we find a contrapuntal play between vigorous technical capacity and drive, on the one hand, and conservative and restraining practices, on the other. By 1960 it appeared that expansion had again taken over, that what the French call the Malthusian practices of monopoly, restriction, and immobility had again been defeated. Whether the defeat will be lasting, however, is an unanswerable question.

There is no need to describe the organization of this book. The next chapter contains a brief analytical account of the growth of the two economies since 1850. The limits and drawbacks of the statistical evidence, which is not relied upon, are discussed in the appendix. Beginning with Chapter 2, there is paraded a series of separate causes of the speed or slowness of French and British growth. The last chapter briefly draws the threads together in conclusion. This catalogue of subjects makes clear the partial-equilibrium nature of the method. I have analyzed single-valued explanations and have found them inadequate. Although this critical, negative task may be of some value, I recognize that it cannot take the place of the job which needs to be done: the provision of an adequate explanation of the course of economic growth of France and Britain since 1850, indicating the quality and quantity of the various causal factors in the two settings and how they differ. My last chapter attempts no such summation. But in the course of attacking the partial-equilibrium explanations, I may have uncovered some of the materials needed for a general theory of growth.

AN OUTLINE OF FRENCH AND BRITISH ECONOMIC GROWTH SINCE 1851

The story of economic growth in France and Britain emerges in the analytical chapters that follow. But a brief sketch may be helpful as background. The outline given is not statistical: the appendix at the back of the book gives the best-known series for British and French national income, overall and per capita, along with discussion of the gaps and the weaknesses of existing series. Let us begin here with French growth.

THE PERIODS OF FRENCH ECONOMIC GROWTH

The early 1840s in France were a period of rapid expansion, especially in textiles.¹ But the crisis which led to the Revolution of 1848 decisively interrupted the upward movement. This revolution has been intensively studied by French economic historians, particularly Labrousse.² Their conclusion, as I interpret it, is that it was in large part brought on by the accident of harvest — first by the worst in fifty years in 1846 and then by the best in 1847, sending prices sky high to impoverish the urban dweller and then plunging them to the depths to ruin the farmer (who had not benefited from the high prices because of a lack of marketable supplies).³ The scissors movement on agricultural incomes marked a deep divide in the demographic history of France.⁴ But the depth of the economic crisis in 1849 provides the low point of the two decades.

¹ Marczewski, "Aspects of the Growth of France" (1961), p. 360, gives five industries whose rate of growth exceeds the general growth of industrial product and whose share in this product exceeds 2 percent, from 1825/34 to 1835/44. Four of these are textiles with a total weight of 19 percent. Iron and steel have a weight of 2.2 percent. My appendix gives certain objections why long-term averages of this sort may not be helpful for short-run analysis.

² See Labrousse, *Aspects de la crise* (1956).

³ But Cameron (*France and the Development of Europe*, 1961), insists that the "crisis of 1848 was first and foremost a financial and banking crisis" (p. 125).

⁴ Pouthas, *La Population française* (1956), p. 29.

The basis of the boom in the early fifties was, first, railroads and, second, public works. Both were overdue. State railway projects had been halted in 1847 and the canal program in the following year. Although both had been resumed, there was little force behind them because of the state of government credit. The coup d'état of Napoleon III on December 2, 1851, produced the first reversal in the situation. The establishment of the *Crédit Mobilier* by the Pereire brothers in 1852 did more to provide new means of finance. The demand for iron rails far exceeded the supply, and in 1853 and 1855 tariffs were lowered. The extension of the French railway network, with private bonds guaranteed by the government, and the building of the Paris boulevards and the ports of Marseilles, Rouen, and Le Havre, drew labor from the farms to the cities. The transformation of local into national markets by the railroads killed off a number of weaker industries, but it opened up opportunities for the expansion of many others. France grew rapidly.

How long this period of rapid growth may be said to have continued is a troublesome question. We are not interested in cycles but in trends. There was one cyclical crisis in 1858, another in 1865, another in 1868. The early 1870s are thoroughly confused by the Franco-Prussian War of 1870, the Treaty of Frankfurt in 1871, and the payment of the indemnity which followed. But there was clearly a boom from 1879 to 1882, followed by a crisis and a long period of stagnation. Did the growth period beginning in 1851 last only to 1857, to 1859, to 1868 (when the *Crédit Mobilier* fell), to 1873? ⁶ Or, with the brief interruption for 1858 and 1859, is it better to regard 1852-1857 as a period of very fast growth and 1860-1882 as growth interrupted by war? ⁶ Again, one might view 1860-1875 as a time of considerable stability, preceded and followed by spurts of growth from 1851-1859 and 1879-1882, followed in turn by stagnation.⁷

In the absence of dependable statistics, the choice of dates depends largely on the implicit weights used by the observer. There can be no doubt that there was a boom from 1851 to 1857 and stagnation from 1882 to 1895. Railroads, coal, iron and steel (largely iron), textiles,

⁶ Cameron regards 1857 as the apogee of the Second Empire (p. 157), and the year of the "revolution" in banking technique (p. 171). The deflation (p. 157) of 1857-58 inaugurated a forty-year deflationary trend (p. 190). But later (p. 485) he indicates that the long depression began in 1882. Perroux, "*Croissance de l'économie française*" (1955), p. 48, chooses 1859. For a picture of 1867, the year of the Paris exhibition, as the peak of the Second Empire, see Zola, *L'Argent* (1891), the opening of chap. viii. Clough, "*Retardative Factors*" (1946), p. 99, chooses 1873 as the end year.

⁷ Cameron, "*Profit, croissance et stagnation*" (1957), p. 410.

⁸ Lévy, *Histoire économique de la France* (1951-52), p. 185.

agriculture, building, and public works, all expanded in the early period and all stagnated in the later. But in the interval they behaved disparately. Agriculture did well up to 1875, although it is difficult to demonstrate this in the absence of adequate data.⁸ Iron and steel declined relatively in rate of growth from 1856, food fabrication, tobacco, and railway passengers in 1867, wool in 1868; cotton, after the interruption created by the American Civil War, in the mid-1870s. The picture in construction is obscure owing to the lack of national indexes, but rapid rates of building occurred in Paris in the 1860s and early 1880s, following the increased urban populations of the 1850s and 1870s.⁹ But Marseilles and Dijon did not enjoy a boom during the 1850s or 1860s, though they did in the period up to 1882.¹⁰ Whether the earlier expansion was limited to Paris is unclear; if the Halbswachs figure given by Girard, which reached 550, is on the base of the average of 1880, 1885, and 1889 as 100, the peak was very high indeed.

For our purposes it is sufficient to note that economic growth was substantial under the Second Empire, especially in the 1850s; that the first half of the 1870s showed little growth; that a brief boom took place from about 1879 to 1882. During the latter period, agriculture was already suffering from the phylloxera that hit the vineyards in 1875 and from the growth of wheat imports that became serious in 1879.

That there was stagnation from 1882 to about 1896 is generally agreed upon. The few indications of national income for 1882 and 1892 show little movement in money terms.¹¹ Prices declined — agricultural prices steadily up to 1890, industrial prices mainly in the slump following that year. Agricultural production fell in the bad harvest of 1893 to the lowest level since the disastrous 1879. The only, and inadequate,

⁸ The best annual index is heavily overweighted with grain and altogether omits meat and fresh vegetables which were rising in this period. See Sirol, *Le Rôle de l'agriculture* (1942), app. 2. But cattle numbers are difficult to measure in France, even in the twentieth century, given the large number of illiterate small farmers, some using cattle for draft purposes.

⁹ See Halbswachs, *La Population à Paris* (1928), p. 209, for an index of construction and additions to structures in Paris from 1862 to 1889. Girard, *Travaux publics* (1951), p. 165, quotes Halbswachs' figures for 1852-1858, which show much higher index numbers for the period to 1857, but I have been unable to find the original source to see whether these use the same base. The largest increases in urbanization in the second half of the nineteenth century occurred in the five-year periods ending in 1856 and 1881.

¹⁰ See Rambert, *Marseille* (1934), p. 415; and Laurent, "Les Archives d'octroi" (1956), esp. diagram 2, p. 201.

¹¹ See Perroux, "Croissance de l'économie française," p. 53, who gives money income in 1882 and 1892 as 26 billion francs. Perroux's dates for turning points are naturally for the years he investigates, which are typically based on Census of Production material. They are therefore statistical rather than historical turning points.

industrial production index shows a decline from 45 in 1883 to 37 in 1886, a rise to 49 in 1892, and that level held to 1895.¹² Real income may have expanded to some extent, as in Britain, especially for the limited numbers of salaried personnel. But expansion was minimal; the economy was stagnant.

After 1896 a vigorous upturn took place, which lasted until the world war. Industrial production rose briskly; at the turn of the century, the rate of its expansion exceeded Britain's.¹³ Even agriculture improved.¹⁴ There is a difference of opinion about which industries led the growth — but growth there was, and vigorous it was.

The familiar post-World War I story can be briefly summarized: expansion with inflation, but vigorous expansion nonetheless, to 1929; thereafter deflation, stagnation, and inflation without expansion to World War II; a slow climb to recovery after 1945, becoming rapid after 1953 despite monetary disorder. After 1957 there was some cyclical setback, but with basically vigorous growth underneath. The development of the 1920s depended particularly on the reconstruction of the destroyed northeast, as well as governmental activity in the provision of canals and the improvement of railway equipment. Coal mines were electrified and steel plants modernized. Agriculture and private building were left behind.

The disastrous 1930s were the result of overvaluation, an attempt at deflation, and the Popular Front experiment with the forty-hour week. Prices declined until 1935 and rose up to 1939, but production recovered only under the Reynaud administration, which took over in November 1938 after Munich. The early postwar recovery was the result of massive investment, based to a large extent on foreign aid. But the expansion ultimately revealed itself to have a basis in strong technological change.¹⁵

SINGLE-VALUED EXPLANATIONS OF THE ALLEGED SLOWNESS OF FRENCH GROWTH

The last century has thus produced four and possibly five periods of rapid growth and two periods of stagnation and decline, apart from three wars and their immediate aftermaths. The expansions are 1851–

¹² Kuczynski, *Weltproduktion und Welthandel* (1935), pp. 20–21. This index is based exclusively on coal and iron and steel, and uses 1913 as a base. The Dessirier index ("Production industrielle et agricole," 1928, p. 104) gives slightly more coverage, since it includes textiles, but has figures for only three separate years prior to 1898.

¹³ Paretti and Bloch, "Industrial Production in Western Europe" (1956), p. 195.

¹⁴ See Institut de Conjuncture, *Production agricole* (1944), cited by Walter, "Développement économique de la France" (1957), pp. 53ff.

¹⁵ I have discussed this in "Postwar Resurgence" (1963).

1868, 1896-1913, 1919-1929, and 1946 more or less to date. The probable expansion period is 1879-1882, probable because it was so brief. (There can be no doubt that French economic activity increased during these years, but the period is so short that it should perhaps not be counted as a growth period.) The stagnant periods are 1882-1895 and 1930-1939. With wars added, this leaves only the years from 1868 to 1870 and from 1872 to 1875, which can either be added to the war period or be regarded with the rather small war of 1870 as another short stagnant phase.

I have evaded and continue to evade the question of whether this expansion should be measured overall or per capita. The French record is much better on the second basis than on the first, given its relatively slow rate of population growth. But the overall rates in the expansion periods were substantial. This record of alternate spurts and pauses will be examined in detail below. Note now, however, that it casts doubt on any single-valued explanation of an overall slowness in French economic growth. To say that the French economy has not grown because it lacks cheap coking coal, because of the family firm, because of its slow population increase, and so on, would appear to suppose a rate which is continuously slow. It might be possible to construct a theory in which a lack of appropriate coal in appropriate abundance produces a slow average rate of growth, composed of alternate rapid and dead stretches, but the *prima-facie* case is against it. On the other hand, some of the explanation for French difficulties, such as class war or the drag of agricultural inefficiency, satisfactorily fit the rhythm of the French experience. We cannot use the fact of sporadic periods of rapid growth to exclude, without examination, single-valued explanations for slow overall performance, but at least the burden of proof is on their supporters to explain how these occasions of rapid expansion fit.

The commentators may also confuse the level of French output with its rate of change. There can be no doubt that income per capita in France was well below that of Britain in 1851, as it was in 1950 when the question was submitted to careful measurement.¹⁶ Britain had been growing faster than France from 1760 to 1850, possibly earlier, and its lead was extensive. The two economies could thus grow at the same

¹⁶ Gilbert and Kravis (*An International Comparison of National Products*, 1954) give British gross national product per capita as 17 percent higher than the French when based on United States weights, 25 percent higher based on European weights, or 21 percent higher using the geometric average of the two bases of weighting (p. 22). These calculations are from aggregations of real outputs priced in dollars, rather than national incomes in local currency, converted at the dollar exchange rate. On the latter basis, because of the overvaluation of the French franc in 1950, British superiority comes out at only 7 percent (p. 23).

rate, with the difference in level widening absolutely. It seems more likely that, on balance, France grew slightly faster on a per capita basis from 1851 to 1950 and that the difference between levels of output per capita narrowed to some extent in percentage terms, though they widened in absolute terms.

THE PROFILE OF BRITISH EXPANSION

The British economic performance over these years can be much more clearly perceived than the French, though it is not altogether without its puzzles. The 1850s were a period of rapid growth in Great Britain. Agriculture enjoyed a golden age, despite the repeal of the Corn Laws in 1846 that was precipitated by the famine in Ireland and the short crops of the "hungry forties." Building grew, despite the collapse in railway construction following the "railway mania" of 1844–1846 and the peak of construction in 1848. A notable contributing factor in the boom was exports, stimulated by the Crimean War, by the gold strikes in California and Australia, and, especially, by the wave of railway lending from London to the Continent, much of it spent on British equipment and technical assistance. Pressure from exports on iron and steel led to major technological advances, such as Bessemer's invention of 1856,¹⁷ though they took many years to come to fruition. Exports of cotton textiles expanded rapidly without the same technological effects.

The crisis of 1857 provided an interruption, but the 1860s saw the expansion resumed. New industries boomed. Progress in cotton was interrupted by the American civil war, but wool, coal, shipbuilding, and building took up the slack. Exports of railway equipment continued to rise. The crash of the Overend, Gurney Company in 1866 gave brief pause to financial markets, but this proved merely the prelude to the boom of 1867–1873. New joint stock companies were formed under the limited-liability legislation of 1856. The cotton industry emerging from the cotton famine was reorganized and transformed. The shipbuilding boom of the 1860s was followed by one in the early 1870s. Exports of coal grew apace from the established center at Newcastle and the newly expanded Welsh industry, which exploded under the pressure of industrial and transport demand in Europe and in fact all over the world.

We may regard the period as one of unified growth from 1850 to 1873 or 1875 — for many of the investment projects floated before the crash in 1873 were constructed in the years that followed. This was a

¹⁷ Habakkuk, "Free Trade and Commercial Expansion" (1940), p. 802.