

PART IV
NARRATIVE

IX

THE DEPRESSION OF THE SEVENTIES:

1874-9

I. GENERAL

THE famous depression in Great Britain of the 1870s, traditionally regarded as a period of unrelieved economic decline and difficulty, in fact falls into two quite distinct parts. The first, embracing the years 1874-7, is marked by maintained or slowly rising levels of production, with activity at home compensating losses, direct and secondary, due to the cessation of railway building and other new development in America and elsewhere. Britain's position in the preceding boom had been that of supplying capital goods and capital to developing areas. When such orders fell drastically and the inducement to invest abroad slackened, funds were diverted into home and public building, the opening of new mines, a variety of technical improvements involving the manufacture and use of steel, and the installation of new machinery of all kinds. This immediate shift in the character of investment helped sustain average annual employment above 95 per cent. until 1878. From the last quarter of 1877 to the middle of 1879 output in almost every branch of trade declined and unemployment rose to severely high levels. This secondary phase is paralleled closely by waning activity in the building trade, where a peak was reached late in 1876.

In the money market a variety of factors tended to keep the market from the ease of depression and a revival of confidence. Foremost among these were the gold purchases from Paris and Berlin; in the former case to acquire a reserve for the resumption of gold payments, in the latter to shift from a silver to a gold coinage system. The maintenance of high purchasing power in Britain, with bad harvests at home, and

relatively falling exports created, until 1877, a growing net balance of imports. A greater fall in the price of Britain's capital-goods exports than in her consumption-goods imports accentuated this tendency. An unfavourable American exchange especially proved an embarrassment. Internally the banking system came under suspicion in 1878 with the crash of the Glasgow Bank. Lastly, war in Eastern Europe, with England playing an irresolute neutral hand, contributed to an unstable market atmosphere. A conjunction of these pressures produced in 1878 a rise of almost a full per cent. in the average Bank rate.

The floatation of foreign issues had dominated the long-term capital market in London to 1873, but crises on the Continent and in the United States, a knowledge of the exotic financial techniques of various of Britain's debtors, and an accumulation of defaults brought about an almost complete cessation of foreign lending. 1876-8 were years of net capital import. Home investment as reflected in new issues and the formation of companies fell off, but not on a scale comparable with foreign floatations. Much of the investment, moreover—in houses, machines, iron ships—which maintained output and employment did not appear in the capital market. The boom in house-building, in fact, was stimulated in part by the uncertainty of the market and the disrepute into which foreign investment had fallen.

Despite the maintenance of moderately high output until 1878, business, for the employers, was unsatisfactory. Especially was this so in the heavy industries. Almost every influence playing on the market made for lower prices and smaller profit margins. In 1871-3 the coal industry had undertaken tremendous expansion. The increased possibilities of supply, coupled with a relaxation of the 'famine' demand of 1871-3, brought the price down continuously. And although coal output did not decrease until late in the depression, men could not be kept employed at full time. Cut-throat, profit-reducing competition was conducted for the limited orders available. In iron the manufacture of railway materials came to a virtual standstill after 1873. The building of iron ships and of new machinery bolstered

many sections of the industry, but unemployment among iron-founders rose steadily, accelerating in the latter stages, until it reached 23.9 per cent. in the first quarter of 1879. In this setting the steel revolution was conducted. By 1879 steel rails had eliminated iron, and the first steel ships were under construction. Only in the last year of the period did output from the Bessemer furnaces decrease. The textile industry had not enjoyed in 1871-3 the same kind of boom as the capital-goods trades. For a time, despite bad harvests in the East and the painful depreciation of silver, Chinese and Indian orders increased; the demand at home remained strong until 1878-9. But prices fell and operators described trade as 'dull and profitless'. Profit margins, like the yield on Consols and other fixed-interest securities, fell steadily in almost every branch of trade.

Falling prices, and competition made more acute by the development of capital industries in Germany, the United States, and elsewhere, forced on entrepreneurs the necessity of lowering costs wherever possible. Increased attention to workers' efficiency, the weeding out of less competent men, the use of labour-saving machinery, and, above all, wage cuts carried on this process. Efforts to lower wages resulted in a series of bitter and often long-drawn-out strikes. Union funds had been built up rapidly in prosperity, employment in many sections remained good until 1878, and the men were willing to fight.

The real wages of labour, measured by *per capita* consumption or calculated from money wage and retail price indices followed the movement of production rather than of prices and profits. In various districts short time limited the men's earnings, as did almost universal wage cuts. Until the latter stages of depression the general position of labour was well maintained, aided, despite bad harvests, by reduced retail prices. But with the building boom over, and internal investment low in 1878-9, unemployment mounted to the highest point in the half-century before the First World War.

II. THE MONEY MARKET¹

| | Bank rate per cent. | Bank's reserve ratio | Bank reserve | Net foreign gold movements (in millions) | Business cycle index |
|------|------------------------|----------------------------|-----------------|--|----------------------------|
| 1873 | 4½ | 95.3 | 55.8 | + 1.53 | +1.32 |
| 1874 | 3½ | 100 | 51.2 | + 5.73 | +0.94 |
| 1875 | 3½ | 100 | 54.0 | - 0.32 | +0.51 |
| 1876 | 2½ | 120.9 | 74.4 | +10.21 | -0.42 |
| 1877 | 2½ | 100 | 58.1 | - 3.54 | -0.76 |
| 1878 | 3½ | 86 | 50.7 | - 2.70 | -1.50 |
| 1879 | 2½ | 114 | 85.1 | + 0.55 | -2.35 |

1. Rates in the money market were easier in 1874 than in the previous year of crisis. The supply of commercial bills for discount abated, but the bullion policy of France, like that of Germany in 1873, put such pressure on the reserve that the Bank was compelled for some time to maintain rates above those which normally prevailed in an easing market. Open market borrowing was necessary to preserve Bank of England control.²

In 1874 the Bank of France acquired (net) £16.27 million in gold bullion.³ Of this amount fully £7.47 million came from London. The French Bank was building up its reserves in preparation for a return to specie payments, which had been suspended since the Franco-Prussian War. Bullion was attracted to Paris by a careful manipulation of the Bank rate there. The average rate of the Bank of France was ½ per cent. above that of the Bank of England for the year. Directors of monetary policy in Paris were careful not to create panic conditions in the course of accumulating gold. Their shrewd judgement in timing the liquidation of their holdings in Lombard Street earned the grateful praise of London's bankers.⁴ In June the demand from Paris slackened, after

¹ For statistical sources used in this and the following sections see below, 'The Principal Statistical Indexes', pp. 222-5.

² *Economist*, 1874, pp. 1393, 1477.

³ *Economist, Commercial History and Review of 1874*, p. 4.

⁴ *Economist*, 1874, pp. 337-8; also *Review of 1874*, p. 3: 'The Directors of that establishment (the Bank of France) have manifested the highest skill and judgment in the way in which they have quietly and effectively accomplished their object of increasing the cash reserve.'

dominating the early part of the year, and the Bank rate remained at $2\frac{1}{2}$ per cent. until the first week in August, when further French withdrawals pushed the rate to 4 per cent.¹ After a short period of ease the autumnal drain set in during October, when the reserve in the Banking Department fell below £10 million, the accepted symbol of safety.²

The autumn situation was complicated by a rise in the rate of the Bank of Prussia which was experiencing difficulty in holding stocks of gold previously acquired for coinage. Constant rumours of actual or impending German withdrawals ran through the City.³ Financial operations in Berlin threatened an uncertain market. Bankers knew that if gold coins were to be substituted for silver in Germany more gold would be required, London was the market where the pressure would be felt,⁴ and, for the moment, the supply of bullion in Berlin was ebbing away despite high rates. By 12 December German withdrawals of gold materialized in London,⁵ but the reserve was rising in the Bank. The seasonal drain was over, although a six per cent. rate remained until the year-end.

When the Bank rate rose defensively in the last quarter of the year, open market borrowing on Consols and Indian bonds was required to raise the rates in the outer market.⁶ With bills relatively scarce and idle funds available, the Bank directors feared that the enforcing of protective stringency might be difficult. In fact operations on a relatively small scale sufficed to keep rates up.

2. In 1875 easier conditions settled in the money market.

¹ *Ibid.*, pp. 957-8.

| | Bank rate per cent. | Banking department reserve | | Bank rate per cent. | Banking department reserve |
|----------|------------------------|----------------------------------|---------|------------------------|----------------------------------|
| 30 Sept. | 3 | 10·81 | 11 Nov. | 4 | 9·04 |
| 7 Oct. | 3 | 10·04 | 18 Nov. | 5 | 8·82 |
| 14 Oct. | 4 | 9·41 | 25 Nov. | 5 | 9·29 |
| 21 Oct. | 4 | 9·42 | 30 Nov. | 6 | 8·64 |
| 28 Oct. | 4 | 9·60 | 30 Dec. | 6 | 10·35 |
| 4 Nov. | 4 | 8·83 | | | |

See also *Banker's Magazine*, 1874, pp. 798-9.

² *Economist*, 1874, pp. 1249, 1398-9; and *Banker's Magazine*, 1874, pp. 934-5.

³ *Economist*, 1874, p. 1449.

⁴ *Ibid.*, p. 1477.

⁵ *Ibid.*, pp. 1393 and 1477.

The Bank of France built up its reserve another £12 million and the Prussian Bank drew gold for minting; but the strain on London's reserves was not comparable to that in 1874.¹

Against the continuous and forceful opposition of Bagehot, in the editorial columns of the *Economist*, the Bank reduced its rate early in the year.² From 17 February to 7 July it remained at 3½ per cent. from where it sank to 2 per cent. through most of August and September. The autumnal drain was mild in October, but aggravated by stringency in Berlin. The energetic withdrawal there of small notes and the change of the standard coinage from silver to gold created a demand for gold reflected in some exports from London and rumours of exports to come.³ On 20 October the Bank rate moved to 4 per cent., still under the fear of German coinage needs. A small rise in the reserve encouraged a 3 per cent. rate on 17 November, but by the end of the year French and German demands for bullion set the rate back to 4 per cent.

The Bank's protective policy again operated against a market where two great difficulties impeded the usual action of the Bank—the excess of deposits as compared with good bills, and the independence of the rates for deposit given by the bill-brokers and banks of the Bank of England's discount rate.⁴

3. For 8½ months of 1876 the Bank rate was 2 per cent. The autumnal drain, although reducing the reserve somewhat, called forth no change in the official rate.⁵ In Paris, Berlin, and Amsterdam the same case prevailed.⁶

The year opened with the rate at 5 per cent., still under the threat of further French and German withdrawals. The end of this type of bullion drain was, however, in sight. In

¹ *Review of 1875*, pp. 4–5.

² *Economist*, 1875, pp. 29, 57, 204. The Bank lowered its rate too rapidly and suddenly found in February that Paris had drawn off several millions. The Bank rate went promptly to 3½ per cent., and the reserve was again safe; but the *Economist* (p. 205) did not fail to point the moral. By the middle of the year, however, the editors were convinced that the reserve was adequate and 2 per cent. proper (pp. 957–8).

³ *Ibid.*, pp. 1216–17.

⁴ *Ibid.*, p. 1360.

⁵ *Review of 1876*, p. 40. Notes in Banking Department (in £ millions): 20 September, 21–43, 20 December, 15–62.

⁶ *Ibid.*, p. 7.

January the *Economist* could predict 'a general preponderance of cheap money during the present year'.¹ The supply of funds continued to flow into the market, but the floatation of home issues and the value of foreign trade had become less, while foreign lending was virtually at an end.² Initiative in the capital market was paralysed.

When the immediate threat of German withdrawals ceased, in the spring of the year, a net influx of gold built up the coin and bullion reserve from £21.98 million on 19 January to £26.26 million on 26 April: 'gold continues to come hither, and to stop when it has come, no other European money markets offering better inducements for its employment'.³ In October the fear that Great Britain might interfere in the Russo-Turkish War interrupted the market's stagnant ease. This tightening was accentuated by the withdrawal of gold from London's cheap market on a small scale to Germany, on a large scale to the United States.⁴ Exports to the United States had fallen 37½ per cent. in value in two years, upsetting the balance of payments, and gold moved to New York.⁵ Coin and bullion holdings at the Bank decreased as follows (in £ millions):⁶

| | |
|------------------|------|
| 20 Sept. | 35.0 |
| 18 Oct. | 33.4 |
| 22 Nov. | 30.5 |
| 27 Dec. | 28.4 |

But the Banking Department reserve was fully £5 million over the conventional £10 million limit, and no action was taken to check the withdrawal of funds.

4. In 1876, with the Bank rate at 2 per cent., there were

¹ *Economist*, 1876, p. 35.

² *Ibid.*, p. 34.

³ *Ibid.*, pp. 515-16.

⁴ *Ibid.*, pp. 1291 and 1393.

⁵ *Ibid.*, p. 1393.

⁶ *Ibid.*, p. 1515. An unusually large part of the reserve of notes and coins was made up of bankers' balances in 1876. For most of the summer and autumn the proportion of bankers' balances to reserve hovered between 75 per cent. and 85 per cent., with a tendency to fall off as the year ended. The increased balances were 'the result of an unusual accumulation in the hands of bankers, who, being unable to employ this surplus in any beneficial manner, allowed it to lie dormant in the hands of the Bank' (*Economist*, 1877, p. 661). The tendency for the proportion of bankers' balances to grow had been under way at least since 1871, but the accumulation of idle funds in a depressed market stimulated the development of the practice (*Banker's Magazine*, 1876, pp. 1001-3).

signs that the demand and supply of money were moving towards the kind of adjustment which might precede an upturn in new long-term floatations and a general commercial revival. In fact the last quarter of 1876 showed a modest general improvement.¹ At this crucial juncture, however, confidence was shaken by war in Eastern Europe, political disturbances in France, a slump in American railway shares, and a famine in Southern India. In addition, gold withdrawals began seriously in the autumn of 1877. The Bank, as in 1874, was forced to create an artificial demand for funds in the market by borrowing on Consols.²

Until 2 May the Bank permitted its reserve to fall. At that time coin and bullion holdings were £25.1 million, the Banking Department reserve just under £11 million.³ The rate was raised to 3 per cent., meeting a stiffening tendency in both Berlin and Paris.⁴ A period of relative ease followed in which the Bank rate faded to 2 per cent., lasting from 11 July to 29 August. A seasonal internal drain then brought the rate back to 3 per cent. On 3 October, the reserve having lost £2.17 millions in a week, it moved to 4 per cent.⁵ A week later, with the reserve well under £10 million, the Bank discount rate rose to 5 per cent. where it remained until the end of November. An improved reserve position appeared then, permitting 4 per cent. through December.

The anomalous position of the Bank, fighting to make its rate effective in a period when the market had funds it was willing to lend more cheaply, produced at times market rates fully 2 per cent. below the official discount rate.⁶ The tendency of the Bank to force up rates artificially at a time when bills were few and funds plentiful created great antagonism in the City against the central institution. Private bankers agitated against the publication of an official rate, and the

¹ *Economist*, 1877, p. 2. Also *Banker's Magazine*, 1876, pp. 981-3.

² *Review of 1877*, from the *Railway News*, pp. 39-40. An excellent account of the condition of the market in 1877 is given, and the manner in which Bank policy reacted, or failed to react, on a slack market is described. See also *Economist*, 1877, pp. 1273-4.

³ *Review of 1877*, p. 30, for Banking Department reserve: *Economist*, 1877, p. 512, for coin and bullion.

⁴ *Ibid.*, p. 1177. Also *Banker's Magazine*, pp. 963-5.

⁵ *Economist*, 1877, p. 1177. ⁶ *Ibid.*, p. 1312.

Economist closed an editorial: 'It is undeniable that the Bank rate is no longer the exact index of the value of money which it used to be. It is not that anyone desires to dethrone the Bank, far from it; but if the Bank rate ceases to be a sure guide, is there not a close approach to an abdication of the position.'¹

5. A threatened reserve and high rates, projected on a market in which commercial activity was on a depressed scale, again characterized 1878—the year of bank failures, and the sixth successive year of rising average unemployment.

Early in 1878 the stagnation of the capital market asserted itself, and for the fourth time in four years the Bank rate was at 2 per cent. A sharp rise in deposits,² and some slight decrease in reserve made that rate untenable, and on 27 March the Bank rate moved to 3 per cent.³ At the end of May, despite a dollar exchange that tended to draw gold to New York and large unstable floating balances held by Paris, the Bank lowered its rate to 2½ per cent.⁴ Through the summer the Bank rate moved upwards in four stages. On 14 August, with the reserve at £8.9 million, it stood at 5 per cent.⁵ Holdings in Paris on London were being liquidated, suspicion was spreading about the position of various private banks; and again, despite 'no increase in inquiry for discount in the market', high rates prevailed—and this in a period of seasonal ease.

On Wednesday, 2 October 1878, the City of Glasgow Bank closed its doors. Some £7 million in notes and bullion were withdrawn from Threadneedle Street, the reserve was £8.5 million (16 October), and the Bank rate was 6 per cent. Fearing a run on their deposits, bankers all over the country were keeping their assets on hand: 'A feeling that the times

¹ *Ibid.*, p. 1274 and pp. 1329-30. Also letter by 'Bullionist', *Banker's Magazine*, 1874, pp. 821-3. A review of monetary developments in 1874 (*Banker's Magazine*, 1875, p. 95) describes a growing sentiment among bankers against the system of centralized reserves. The existing relationship to the Bank, it was believed, left the market victim to artificially high rates which made competition for a diminishing business in bills more difficult. A detailed proposal for a special bankers' reserve to be formed co-operatively in London, outside the Bank, is printed in *Banker's Magazine*, 1876, pp. 129-34.

² *Economist*, 1878, p. 369.

³ *Banker's Magazine*, 1878, pp. 439-40.

⁴ *Economist*, 1878, p. 369.

⁵ *Ibid.*, p. 977.

were anxious, that it was desirable to be prepared at all points, has been at the bottom of all this.¹ Since frightened private bankers refused to lend even to sound customers, the Bank was called upon for advances, which were granted on a large scale.² As none of the reserve had been drawn out of the country, a 6 per cent. rate seemed adequate at the time. Moreover, high rates in London drew funds from the gold hoard at Paris, where a 3 per cent. Bank rate prevailed. A rumour persisted in the City that the Bank had borrowed £3 million in gold from the Bank of France in addition. By 20 November the reserve was back to £12.3 million and the Bank rate was lowered to 5 per cent.³

A second large bank failure occurred in the first week of December when the Caledonian Bank closed. Its portfolio contained £400 of City of Glasgow Bank stock. The unlimited liability condition under which it was held brought 'this sound, steady, and successful business' to its knees.⁴ The West of England and South Wales District Bank followed in the next week. 'Heavy and reckless advances to concerns of a dubious nature' earned for it little sympathy in disaster.⁵ By the end of the year caution had become paralysis in the market, the mercantile demand for money was 'languid'.⁶

In June the Court of Directors of the Bank officially abolished the principle of the minimum rate.⁷ For the greater part of the year it was understood in the market that the Bank, using a qualitative discretion, had made advances at rates below the official minimum. Several banks complained that their deposits were being used to underbid them in the open market. Although strong resentment continued, bankers realized that nothing could be done to prevent the Bank from following the general practice of the market if it so desired. In fact the Bank's action was not motivated by a

¹ *Economist*, 1878, pp. 1221-2 and *Review of 1878*, p. 37. The note circulation of the Bank increased fully £6.4 million in 1878.

² *Review of 1878*, p. 37.

³ *Economist*, 1878, p. 1369.

⁴ *Ibid.*, pp. 1429-30.

⁵ *Ibid.*, p. 1457. For an account of other firms affected at this time see *Review of 1878*, pp. 36-7.

⁶ *Economist*, 1878, p. 1486.

⁷ *Banker's Magazine*, 1878, p. 608. For the full significance of the change, as an admission by the Bank of 'its inability to discipline the market', see W. T. C. King, *History of the London Discount Market*, pp. 291-6.

desire to compete in the open market. For some time the publishing of a minimum rate, more or less rigidly adhered to, had served to alienate the Bank from the market. The published rate was so far out of touch with other prices for short-term money that the Bank's business was negligible, control only possible for short periods, after prolonged open-market operations. As noted above, the Bank was forced to relax, even before the official step, its system of a rigid minimum. The non-adherence to a published minimum merely confirmed a system which gave the Directors wider scope for more subtle rate and loan manipulation in the protection of the central reserve: 'The Bank retained at least the opportunity for re-establishing its supremacy'.¹

6. An immense rise in the reserve, a fall in money rates, and a recovery of confidence characterized 1879. An increase in new capital issues and an autumn influx of American railway orders marked the third quarter as a turning-point for commerce and industry as well.²

A fall in 'other securities' and the note circulation, a rise in the reserve, permitted the Bank rate to fall to 3 per cent. by the end of January. The funds held by banks in the crisis of 1878 trickled back; advances made at that time in the interest of liquidity were being repaid.³ The rate of interest, predicted the *Economist*, would soon be at its 'natural' level.⁴ In March the reserve touched £20 million and on 9 April the Bank rate was 2 per cent. But even at that rate the Bank could not compete in a market where first-class paper was placed as low as $1\frac{1}{4}$ per cent.⁵

¹ King, *op. cit.*, p. 296.

² *Review of 1879*, pp. 1-2.

³ *Economist*, 1879, p. 57.

⁴ *Idem.* 'All indications are in favour of a belief that the immediate period of tension is past. We may look forward to greater ease. The mere mercantile demand would certainly not justify a rate of 4 per cent., but the influences of our money-market are so intricate and frequently so little connected with mercantile demand, that we may very likely see money kept for a time above the price it would naturally stand at.'

⁵ *Ibid.*, pp. 425-6. A money-market correspondent writes: 'The prospects of the money-market are now quiet in the extreme, an inevitable result of the crisis of last autumn; and until the present cheapness of money has stimulated trade, led to the introduction of new foreign loans, or a considerable accession of speculative activity on the Stock Exchange, the present low quotations are likely to continue.'

The exchanges at last were in Britain's favour and 2 per cent. was maintained until 5 November. Higher rates in Paris (3 per cent.) and Berlin ($4\frac{1}{2}$ per cent.) caused the withdrawal of funds. The reserve fell £6 million in the two weeks preceding 5 November,¹ but a 3 per cent. rate instituted then kept the reserve hovering safely about £15 million until the end of the year. As the revival gathered momentum, however, there was some tendency for rates in the outer market to rise. The Bank's 'other securities' show an increase in the residual discounting that fell to its lot.² A reflection of the direction of recovery was the tightening of the money market in New York; the American railway boom, with the consequent imports from Great Britain, was to be the primary stimulus of British recovery in 1880.³

7. The notable characteristic of this downward cycle in the money market is the length of time required and the difficulties surmounted before cheap and easy rates steadily prevailed. In the preceding chronicle a non-commercial demand for gold, bank failures, and political uncertainty appeared to impede the normal adjustment of rates to an abundant supply of short-term funds and a slackened demand. In addition the American exchanges, turned unfavourable to Britain, seemed occasionally to draw funds from London.

This latter movement reflects the frictions generated within the balance of payments during the rapid shift of Great Britain from a large-scale exporter to a small-scale importer of capital (1876-8). Hobson's balance of payments estimates are as follows (in £ millions):⁴

| | Total invisible items | Estimated income from capital abroad | Import excess | Capital export |
|------|-----------------------|--------------------------------------|---------------|----------------|
| 1873 | 87.3 | 50.0 | 65.0 | 72.3 |
| 1874 | 80.9 | 52.0 | 79.9 | 53.0 |
| 1875 | 75.0 | 49.5 | 98.0 | 26.5 |
| 1876 | 76.0 | 46.5 | 125.9 | - 3.3 |
| 1877 | 76.6 | 47.5 | 139.5 | -15.4 |
| 1878 | 80.7 | 47.0 | 129.0 | - 1.3 |
| 1879 | 74.6 | 47.3 | 109.8 | 12.1 |

¹ *Economist*, 1879, p. 1286.² *Ibid.*, p. 1490.³ *Idem.*⁴ C. K. Hobson, *The Export of Capital*, p. 197.

The two 'asset' items—invisible payments and income from abroad—moved in a fairly orderly way, with the former well maintained, the latter influenced by interest repudiations. Britain's liabilities to other countries, however, fluctuated extraordinarily with an increase in net imports racing up to balance the virtual cessation of new foreign investment. This was accomplished by a decline in the value of exports, with imports rising slowly to 1877, then fading slightly. Although Britain did succeed in halting the flow of funds abroad, the money market found itself in the position of having more payments to be made abroad than could easily be 'matched' in the market. This situation—with foreign lending at an end—need not have created an artificial tightness. But a relative abundance of bills on London made the continental task of acquiring gold easier and helped prevent the Bank rate from settling to the low level which money conditions outside the Bank would have permitted.

III: LONG-TERM INVESTMENT

| | <i>Yield on Consols</i> | <i>Index of enterprise</i> | <i>New issues in United Kingdom</i> | <i>Capital export</i> | <i>Industrial securities' prices</i> | <i>Fixed interest securities' prices</i> | <i>Business Cycle index</i> |
|------|-------------------------|----------------------------|-------------------------------------|-----------------------|--------------------------------------|--|-----------------------------|
| 1873 | 3·24% | 111·0 | 24·7 | 231·7 | 84·3 | 81·5 | +1·32 |
| 1874 | 3·24 | 107·3 | 24·1 | 169·9 | 81·8 | 81·5 | +0·94 |
| 1875 | 3·20 | 101·8 | 15·7 | 84·9 | 77·1 | 83·0 | +0·51 |
| 1876 | 3·16 | 83·5 | 16·1 | -10·6 | 72·1 | 84·6 | -0·42 |
| 1877 | 3·14 | 79·8 | 21·1 | -49·4 | 68·3 | 85·3 | -0·76 |
| 1878 | 3·15 | 68·8 | 18·3 | -4·16 | 62·9 | 84·2 | -1·50 |
| 1879 | 3·08 | 78·9 | 15·7 | 38·78 | 58·0 | 85·5 | -2·35 |

1. In 1874 new capital issues, formally floated in London, were far below those of the two preceding years. The general reaction of 1873 developed only slowly into full depression, but confidence was immediately shaken as prices of goods and securities fell.¹ The following are the statistics of issues during the year² (in £ millions):

¹ For the state of confidence in 1874, see *Review of 1874*, pp. 1-2.

² *Ibid.*, p. 2. A table of the amount and distribution of new issues is given, collected by Messrs. Spackman & Sons.

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| | <i>Capital offered by new companies</i> | <i>New issues by existing companies</i> | <i>Foreign loans</i> |
|------|---|---|--------------------------|
| 1872 | 44.2 | 31.9 | 227.8 |
| 1873 | 44.4 | 36.0 | 128.8 |
| 1874 | 20.5 | 25.0 | 29.1 |

On the capital offered for new companies, deposits payable on application and allotments amounted to £5.5 million in 1874; of the £25 million in new issues of old companies £20 million were called up; of the foreign loans, which had dominated the market in 1872, and fallen heavily in the course of 1873, only £15.2 million were paid up. Sixty-one manufacturing and trading companies and eight railways absorbed half the funds for investment in new companies, while railway securities constituted most of the issues of existing companies. The foreign loans went to Belgium, Canada, Hungary, the Ottoman Empire, and the Santa Fé Railway. A $43\frac{1}{2}$ price for the 5 per cent. Ottoman loan indicates the distrust under which such issues were presented.¹

The Stock Exchange lists reflect sharply reduced profit expectations:²

| | <i>Heavy industry</i> | <i>Textiles</i> | <i>Lighting and Power</i> | <i>Transport and Com.</i> | <i>Total</i> |
|-----------|---------------------------|-----------------|-------------------------------|-------------------------------|--------------|
| Jan. 1874 | 145.0 | 145.7 | 59.4 | 128.8 | 127.2 |
| Dec. 1874 | 134.2 | 141.7 | 67.1 | 120.2 | 120.2 |

The moderate fall in textile securities' prices is evidence of that industry's less abrupt cyclical movement, apparent in price and production statistics as well.³ Lighting and Power shares, unaffected directly by changes in foreign trade, and in a wave of great secular development, continued to

¹ See also *Economist*, 1874, pp. 199, 654, 444, and 719 for sceptical comments on the Turkish deficit, financial methods, and outstanding debt. 'Turkey', it is concluded on the eve of the new loan, 'has been on the brink of bankruptcy for two or three years past' (p. 719).

² Smith and Horne, op. cit., p. 9. 'Heavy Industry' includes Iron, Coal, and Engineering shares. The monthly figures given in the text are an index in which July 1890 = 100; the annual figures have been recalculated in the table at the head of this section with 1900 = 100.

³ See below, Section IV.

rise until the final stages of depression. Securities' prices in this branch moved as follows:¹

| | | | | |
|-----------|---|---|---|------|
| Jan. 1874 | . | . | . | 59.4 |
| " 1875 | . | . | . | 69.0 |
| " 1876 | . | . | . | 75.5 |
| " 1877 | . | . | . | 82.3 |
| " 1878 | . | . | . | 78.1 |
| " 1879 | . | . | . | 66.2 |

In the price of fixed interest securities the rate of interest revealed a tendency to fall. The index moved as follows:²

| | | | | |
|-----------|---|---|---|------|
| Jan. 1874 | . | . | . | 84.2 |
| Apr. " | . | . | . | 84.6 |
| July " | . | . | . | 84.6 |
| Oct. " | . | . | . | 85.0 |
| Jan. 1875 | . | . | . | 84.9 |

The yearly average, however, like that for the yield on Consols, is at the same level as 1873.

2. With certain of the more speculative markets virtually eliminated, investment statistics in 1875 show a further deterioration in expected profits, reflected, it is to be noted, on both the supply and demand sides of the capital market:

The money asked for by new ventures has been only scantily supplied, small though its amount has been. If the country had been moving at only half the ordinary pace, it is clear from these figures that there must be an enormous amount of money wanting employment, for the sums asked for by all kinds of borrowers last year reached little more than a tenth of that sought in 1872, and are not half the amount borrowed in 1874 . . . but it has been difficult during this period to float anything but the very best schemes.³

The following are statistics of issues during the year (in £ millions):

| | <i>Capital offered by new companies</i> | <i>New issues by existing companies</i> | <i>Foreign loans</i> |
|------|---|---|----------------------|
| 1874 | 20.5 | 25.0 | 29.1 |
| 1875 | 7.4 | 14.0 | 14.0 |

¹ Building trade shows a parallel belated depression, *idem*.

² Smith and Horne, *op. cit.*, p. 7.

³ *Review of 1875*, p. 30. The *Report of the Select Committee on Foreign Loans* (reprinted *Banker's Magazine*, 1875, pp. 796-835 and 878-907) helped deter the

Only £2·5 million in deposits were laid against new issues, and £11·0 million called up on issues of old companies. Foreign loans were to the more or less financially respectable governments of Brazil, Russia, and Sweden; on these £13·1 million were paid up. A feature of the new floatations was the appearance of three building firms, which offered £0·76 million of which £0·31 million was taken—the third largest category.

The Stock Exchange continued weak except for the period March to May when prices remained moderately steady.¹ But there was nothing hearty about the recovery and prices proceeded to sink to the last quarter:²

Index of Total Security Prices

| | | | | |
|-----------|---|---|---|-------|
| Jan. 1875 | . | . | . | 119·8 |
| Apr. " | . | . | . | 119·6 |
| July " | . | . | . | 114·2 |
| Oct. " | . | . | . | 112·2 |
| Jan. 1876 | . | . | . | 112·4 |

The miscellaneous item, containing for these years the shares of food, drink, and building companies, among others, shows no such drastic decrease:

| | | | | |
|-----------|---|---|---|-------|
| Jan. 1875 | . | . | . | 114·1 |
| Jan. 1876 | . | . | . | 111·1 |

A decisive fall in the rate of interest appears in both the yield on Consols and the prices of fixed interest securities generally.³

3. New issues in 1876 were again at a lower level than in the previous year (in £ millions):⁴

| | <i>Capital offered by new companies</i> | <i>New issues by existing companies</i> | <i>Foreign loans</i> |
|------|---|---|----------------------|
| 1875 | 7·4 | 14·0 | 14·0 |
| 1876 | 8·5 | 6·5 | 3·6 |

floatation of foreign issues. The methods of contractors in floatation and the 'misstatement and suppression to be found in the prospectuses' were particularly condemned. See also *Banker's Magazine*, 1876, pp. 272-4.

¹ *Economist*, 1875, pp. 526-7, 555, 585.

² Smith and Horne, op. cit., p. 9. At the end of May rumours in the City of difficulties in the iron trade, the failure of the Deutsche-Brazilianische Bank, and the collapse of American railway shares started the market down again (*Economist*, 1875, pp. 645-6).

³ See above, table at head of this section.

⁴ *Review of 1876*, p. 32.

£2.9 million in deposits were set against new issues, £5.5 million were called up on issues of existing companies, and £3.5 million were paid up on foreign loans. These latter went to China (8 per cent. issued at 100), Norway, Sweden, and the U.S. Existing building companies drew from the market the relatively large sum of £1.1 million. Other substantial borrowers were again the railways and 'manufacturing and trading companies'. In 1876 holders of Eastern and South American government securities reaped their 'harvest of insolvency'.¹ Turkish, Peruvian, and Egyptian stocks, for example, depreciated 36 per cent. in the six months preceding April 1876 (in £ millions):²

| | Amount outstanding | Value Oct. 1875 | Value end Mar. 1876 | Depreciation | |
|----------------|--------------------|-----------------|---------------------|--------------|-----------|
| | | | | Amount | Per cent. |
| Turkish . . . | 176.4 | 55.5 | 30.6 | 24.9 | 44.8 |
| Egyptian . . . | 56.7 | 38.1 | 30.6 | 7.5 | 19.6 |
| Peruvian . . . | 25.5 | 10.9 | 5.7 | 5.2 | 47.6 |
| TOTAL . . . | 258.6 | 104.5 | 66.9 | 37.6 | 36.0 |

The era of foreign government loans had come to a belated end. The *Economist* lamented:

It is melancholy to think that transactions which have done the lenders so much harm should have done the borrowers so little good. But we fear that in Turkey and Peru there is almost nothing, and in Egypt nothing sufficient to show as an equivalent for the expenditure of these enormous sums. The truth is that Lombard Street has been to these semi-civilized countries what the London money-lender is to young men at Oxford; it has given them a premature command of money which they have not the judgment or experience or stability of character enough to spend well, which, accordingly they spend ill, and which does them almost unmingled harm.³

¹ L. H. Jenks, *The Migration of British Capital to 1876*, p. 291.

² *Economist*, 1876, pp. 393-4.

³ *Ibid.*, p. 393. The Select Committee on Foreign Loans wrote: 'It is true that the credulity and cupidity of certain classes of the community have blinded them to the danger of embarking in speculations such as your Committee have described. They appear to have measured the value of the promises held out to them not by any rule of experience but their own sanguine expectations and

This disillusion explains almost completely Hobson's estimates, showing a net import of capital for 1876.¹

Under the stimulus of a 2 per cent. Bank rate and generally undisturbed conditions, the stock market rallied hesitantly in the latter half of the year:²

| | | | |
|-----------------|-------|-----------------|-------|
| Jan. 1876 . . . | 112.4 | Oct. 1876 . . . | 107.1 |
| July " . . . | 106.6 | Nov. " . . . | 108.8 |
| Aug. " . . . | 107.2 | Dec. " . . . | 108.0 |
| Sept. " . . . | 106.6 | | |

With 'much money ready to be placed', there seemed a real possibility of steady recovery;³ but continued uncertainty and a tight money market ended the hope of immediate revival early in 1877.

The rising price of fixed interest securities and a falling yield on Consols continued. Their prices were sustained 'by a pressure which arises from the extraordinary abundance of money'.⁴ With old outlets for funds tightly closed and new types of enterprise scarce, an assured yield commanded a rising price. But for the fear that Britain might become involved in an Eastern war the price of Consols would have risen even farther.⁵

4. The Macgregor index of enterprise (joint-stock company formation) shows initiative falling away in 1877;⁶

thus have fallen a prey to those who, by trading on their credulity, have obtained their money and then betrayed their interest.⁷

The extent to which foreign loans were ultimately defaulted is given by this summary table calculated from the *Review of 1878*, p. 4 (in £ millions):

| <i>Total issue</i> | <i>Partial default</i> | <i>Total default</i> | <i>Wholly fulfilled</i> |
|--------------------|------------------------|----------------------|-------------------------|
| 505.2 | 66.2 | 157.2 | 281.8 |

This does not include losses from depreciation in market value.

¹ Op. cit., p. 223.

² The armistice in November between Russia and Turkey helped strengthen the tone of the market (*Economist*, 1876, pp. 1292-3); but the fear of further conflict harassed the market until April 1877, when doubts were settled by the outbreak of war. Speculators were operating largely on rumours: a settlement in Bulgaria, the Czar's abdication, Turkey joining or refusing to join a Conference of European powers, &c.

³ *Ibid.*, p. 292.

⁴ *Ibid.*, p. 743.

⁵ *Idem.*

⁶ See above, table at head of section.

bankruptcies remained at the high level of the preceding years in the cycle:¹

| | |
|------------|-----|
| 1873 . . . | 273 |
| 1874 . . . | 328 |
| 1875 . . . | 408 |
| 1876 . . . | 356 |
| 1877 . . . | 356 |

New issues were again on a small scale. Hobson's figure for capital issues slightly increases in both 1876 and 1877;² Beveridge's estimate of capital per head of new joint-stock companies registered a fall in 1876, a rise in 1877;³ the following contemporary estimate, an increase in 1876, a marked fall in 1877 (in £ millions):⁴

| | |
|------------|-------|
| 1875 . . . | 13.32 |
| 1876 . . . | 13.65 |
| 1877 . . . | 11.89 |

From these figures of relative movement, it may be concluded that 1877 was somewhere in the trough of the cycle in long-term capital issue.

In every branch of the market industrial securities gave way. The total index moved as follows:

| | |
|-----------------|-------|
| Jan. 1877 . . . | 107.4 |
| Apr. " . . . | 103.6 |
| July " . . . | 101.4 |
| Oct. " . . . | 99.5 |
| Jan. 1878 . . . | 97.9 |

Market reports reveal operators again following avidly the movements of European diplomacy.⁵ They found little comfort. In December stock market reports are still discussing Russian victories in the Balkans and the doings of Marshal Macmahon.⁶

Political uncertainty accounts also for the failure of Consols to rise. With Europe hovering on the brink of

¹ Macgregor, *op. cit.*, p. 198. This figure includes compulsory bankruptcies, those caused by owners unable to meet liabilities, and two-thirds of other voluntary liquidations. ² *Op. cit.*, p. 233.

³ *Unemployment*, p. 456, col. 12 (1930 edition).

⁴ The complete Spackman table, used for other years in this section, is not available for 1877. The figure here used comes from *Herpath's Journal*, reprinted in the *Review of 1877*, p. 40.

⁵ For a fairly complete statement of the factors affecting the stock market at the time see *Economist*, 1877, pp. 787-8. ⁶ *Ibid.*, p. 1432.

general warfare, unemployment rising, business profit margins decreasing, it was difficult to find buyers for the safest securities. Even fixed-interest securities could not maintain the level of the latter months of 1876:

| | 1876 | 1877 |
|--------------|------|------|
| Jan. . . . | 86.9 | 88.8 |
| July | 88.2 | 88.4 |
| Dec. | 88.5 | 87.9 |

5. The exact movement of new issues in 1878 is obscure. There appears to have been some revival in foreign issues, none for use within Britain. The Macgregor joint-stock index falls, as does Hobson's estimate of new issues. Beveridge's figure remains as in 1877. These three statistics reflect movements in internal investment. Hobson's capital exports show a smaller net import than in the preceding two years, his figure for new foreign issues rises. The *Herpath* figure for total issues, quoted in the *Economist*, rises from £11.8 to £33.7 million.¹ But no important revival in capital investment was apparent in the City. Reports indicate that until the autumn bank failures, the previous depression conditions prevailed—falling security prices, a rising tendency in Consols and other fixed-interest securities. But the latter group weakened and a near panic occurred in industrial shares in the last half of the year:²

| | Fixed-interest securities | Industrial shares | Price Consols |
|-----------------|---------------------------|-------------------|---------------|
| Jan. 1878 . . . | 87.5 | 97.9 | 95½ |
| Feb. " | 87.9 | 97.4 | 95½ |
| Mar. " | 87.9 | 95.7 | 95½ |
| April " | 87.9 | 95.2 | 94½ |
| May " | 88.5 | 94.3 | 96½ |
| June " | 88.3 | 96.3 | 95½ |
| July " | 87.8 | 96.5 | 95½ |
| Aug. " | 87.4 | 96.5 | 94½ |
| Sept. " | 86.9 | 94.7 | 94½ |
| Oct. " | 86.3 | 91.3 | 94½ |
| Nov. " | 87.4 | 89.7 | 95½ |
| Dec. " | 86.4 | 86.9 | 94½ |

¹ *Review of 1879*, p. 55. This figure bears, of course, an unknown relation to the amount of capital actually subscribed.

² The average monthly price of Consols comes from the Statistical Abstract.

The irregular movement of securities in the early part of the year was another product of political alarms.¹ Rumours of impending peace alternated with those of the Russian capture of Constantinople. The market, eager for speculative activity, remained in a state of flux. After peace had been assured some tightening of money rates tended to hamper trade,² Nevertheless, an upward movement continued until August,³ encouraged by the successful conclusion of the Berlin Congress.⁴ In these midsummer months there was even some pre-revival shifting from Consols and fixed-interest securities to equities.⁵

The high money rates of the late summer and a few small failures in the City broke the spell of revival. 'Speculation was at a standstill, members of the House away in the country.'⁶ Further failures in the City and finally the Scottish Bank catastrophe kept activity down until the end of the year. Bankers liquidated their holdings, even Consols in some cases. Finally in early December the closing of the West of England Bank ended a sporadic upward movement earlier in the month.⁷ Once again the large cash balances which had been piling up since 1874 were prevented from finding employment either in speculation or in the floatation of new issues.⁸

6. In the latter months of 1879 the capital market revived. Hobson's total figure for investment declined from the level of 1878, as did the average price of industrial securities.

¹ *Economist*, 1878, pp. 70, 155, 213, 215.

² *Ibid.*, pp. 370 and 770. All sorts of political mishaps continued to trouble the sensitive market. One report (*ibid.*, p. 676) begins, 'Had it not been for the second attempt upon the life of the German Emperor it is probable that a further improvement in market prices . . .' The confidence of the summer helped produce a large number of new issues in June and July (p. 1121). Also *Banker's Magazine*, 1878, pp. 608-9 and 740.

³ *Economist*, 1878, p. 706 and *Banker's Magazine*, 1878, p. 740. In a report for August: 'A feature of the month is the appearance on the scene of a crop of applications for foreign and colonial loans; with the successful settlement of the Berlin treaty it is to be expected that an abundance of every description of these demands will turn up, and it may be hoped that a gradual increase in trade bills will also follow as a result of a legitimate expansion of commercial transactions which have been kept in abeyance whilst the late political anxieties hung over the prospect.'

⁴ *Economist*, 1878, pp. 860-1.

⁵ *Idem.*

⁶ *Ibid.*, p. 1121.

⁷ *Review of 1878*, p. 37.

⁸ *Economist*, 1878, pp. 1440 and 1497.

Narrative

The monthly figures for the latter, however, fall until July and recover rapidly afterwards. The Macgregor and Beveridge annual average indexes rise, as does Hobson's estimate of capital exports.

In its review of 1879 the *Economist* concluded:¹

The amount of new capital created in 1879 was larger than in any year since 1874.² In the face of the general indisposition to invest money in new enterprises there has still been considerable activity in the promotion of new companies at home, while foreign and colonial governments—the latter in a marked manner—have offered inducements more or less tempting for the investors of surplus capital. Among the borrowers New Zealand still maintains its leading position. There have been loans of municipalities or corporations and one of £5 million by the government of the colony. Victoria has raised £2·9 million, N. S. Wales £3·1 million, Queensland £1·07 million, Western Australia £0·19 million. The Dominion of Canada has raised £4·5 million, and the Cape Government £2·6 million. There have been some foreign loans not wholly subscribed in this country such as the Hungarian issue of £15 million; the balance of the Egyptian State Domain Loan, and the large issue of 4 per cent. by the U.S. government. The calls made by railway companies make up a total somewhat less than 1878.³

The indexes of various groups of industrial shares moved as follows:

| | <i>Heavy industry</i> | <i>Textiles</i> | <i>Food</i> | <i>Building</i> | <i>Transport</i> | <i>Total</i> |
|-------------|-----------------------|-----------------|-------------|-----------------|------------------|--------------|
| Jan. 1879 . | 71·6 | 102·0 | 83·2 | 64·7 | 113·6 | 86·5 |
| Apr. „ . | 70·3 | 96·4 | 101·4 | 61·6 | 115·4 | 86·2 |
| July „ . | 59·8 | 94·0 | 103·5 | 56·5 | 115·5 | 82·1 |
| Oct. „ . | 80·6 | 90·5 | 103·0 | 53·8 | 123·1 | 89·4* |
| Jan. 1880 . | 111·7 | 114·6 | 123·5 | 77·7 | 129·9 | 107·1 |

The revival in food shares came first, transport shares rose steadily. The building-share revival lagged a half year

¹ pp. 33-4.

² The estimate on which this statement is based is not available. Hobson's figures show new floatations higher in 1879 than in any year since 1875.

³ By the end of 1879, the *London Times* was already expressing concern over the development of another railway mania. France, Italy, Switzerland, Russia, the Balkans, the near East, and India, as well as the U.S., planned the expansion of their railway systems for the coming year (reprinted, *Economist*, 1879, pp. 51-2).

behind the general upswing, textile shares one quarter. Cheap money brought some general increase in activity during April,¹ but trouble in Egypt and a minor crisis on the Austrian and German bourses prevented a revival from developing in the following months.² The summer was quiet. September reports still complained of the slackness of the Stock Exchange.³

By October a firm revival was under way: 'Business transacted has been extensive in most departments and speculators for the rise have found the public willing to swallow bait which a short time back would have been held before them in vain.'⁴ The most active rise of the year occurred in November and continued more slowly towards the year-end with much profit taking.⁵

With the bank-rate easy and confidence returning the prices of Consols and fixed-interest securities rose. The average price of the former, 92½ in 1873, was 97½. A reaction against unlimited liability in banking and other fields following on the bank failures late in 1878, was bringing a new group of borrowers into the capital market;⁶ and the floatation of such issues, and others as well, was aided by the prevailing low rates of interest.

IV. COMMERCE AND INDUSTRY

| | Business cycle index | Capital goods' produc- tion | Consumers' goods production | Unemploy- ment per cent. | Exports value | Imports value | General prices |
|------|----------------------------|--------------------------------------|-----------------------------------|--------------------------------|------------------|------------------|-------------------|
| 1873 | +1.32 | 55.3 | 68.8 | 1.2 | 77.8 | 71.0 | 148 |
| 1874 | +0.94 | 56.2 | 74.5 | 1.6 | 74.0 | 70.7 | 136 |
| 1875 | +0.51 | 56.5 | 72.3 | 2.2 | 79.5 | 71.5 | 128 |
| 1876 | -0.42 | 58.7 | 71.8 | 3.4 | 72.4 | 71.7 | 127 |
| 1877 | -0.76 | 61.4 | 73.0 | 4.4 | 71.2 | 75.4 | 125 |
| 1878 | -1.50 | 57.6 | 69.2 | 6.3 | 69.3 | 70.5 | 116 |
| 1879 | -2.35 | 56.5 | 64.7 | 10.7 | 70.2 | 69.4 | 110 |

¹ *Ibid.*, p. 481.
² *Ibid.*, pp. 656, 685, 713: 'The fact that money is so exceedingly abundant and readily obtainable has stimulated purchases in various directions. Not that buying has been at all active, but the wish to buy has certainly predominated' (p. 772, 5 July).
³ *Ibid.*, p. 1086.
⁴ *Ibid.*, p. 1209.
⁵ *Ibid.*, p. 1459.
⁶ *Review of 1879*, p. 33.

1. 1874 was the first full year of the Great Depression. Falling prices, complaints of high costs and narrowing profit margins dominate trade reports, especially in those industries where the pressure to expand had been most severe. Production levels fell off slightly in iron; but continued to rise in coal and textiles.¹ Ship-building was active, but felt a lack of new orders.² The home building trade and engineers maintained activity at prosperity levels.³ Problems of wage adjustment received attention in almost every industry, but particularly in coal and iron.⁴

The rail branch of the iron trade found orders from the U.S. heavily decreased. In railroad iron alone the value of British exports to U.S. fell off from £2.4 million to £1.3 million.⁵ The falling price of new iron rails, moreover, reduced profits:

... it is not merely a matter of impossibility under these circumstances (falling prices, high labour costs) for railmakers to make a profit, but the chances are that working under such conditions would entail a loss. Many of them, therefore, prefer to keep their works idle till wages and prices of materials shall have regained their normal position.⁶

The textile trade, which had not experienced (1868-73) a boom on the same scale as the capital industries, enjoyed a year, 'although not very brilliant, slightly better than 1873'.⁷ But relative over-production is reflected in the report of Messrs. Ellison & Co.: 'Throughout 1874 the actual supply of the raw material has constantly exceeded the demand. The result has been an almost continuous readiness of holders to sell, in the face of a nearly chronic indifference on the part of consumers to buy.'⁸ Falling prices cast a shadow on the industry, the value of cotton exports declined in the face of increased sales.⁹

¹ W. Page, *Commerce and Industry*, vol. ii, pp. 150 and 154.

² *Review of 1874*, pp. 17 and 21.

³ *Ibid.*, pp. 27 and 17, respectively.

⁴ *Ibid.*, pp. 1, 16, 17, 19-20, 26. Labour difficulties centred in the coal and iron industries. The rail trade in the north reported 'thousands of unemployed workmen'.

⁵ *Economist*, Trade Supplement, January 1875, p. 7.

⁶ *Review of 1874*, p. 18. ⁷ *Ibid.*, p. 22. ⁸ *Idem.* ⁹ *Ibid.*, p. 24.

Home trades—unconnected directly with export fluctuations—enjoyed a year of maintained prosperity. Reports show building 'brisk', with unemployment among carpenters and joiners lower, in fact, than in the previous year, at 0.8 per cent.¹ The Huddersfield woollen-mills, catering particularly to home trade, found activity 'fully sustained'.²

A report of the chemical trade illustrates the confusion of industrial trends in 1874: 'There have been great complaints of dulness and of losses, those who bought either on speculation or in anticipation of their wants have suffered greatly. . . . Notwithstanding these facts the trade, taken as a whole, has undoubtedly further developed.'³

2. 1875 was a depressing year for business. Although production levels did not fall far and in some cases actually rose, many companies failed, prices and profit margins fell.⁴ The building trade alone reported unmixed prosperity with a low record for unemployment of 0.6 per cent.⁵

The *Economist* lists five specific causes for the preceding boom and contemporary depression: the entrance from 1871 of Germany, Austria, Hungary, and Italy upon a 'newer, freer and more enterprising national career' and the demand in English markets which followed, especially in coal and iron; the American railway building boom (1868-73); a similar period of transportation expansion in Russia; a shipping boom stimulated by the opening of the Suez Canal and the general activity in foreign trade; a rapid rise in prices and wages which caused 'more expenditure and less work to take the place of frugality and diligence, the acquirement of riches seemed to have become so easy that the old virtues of diligence, skill and patience could be laid aside

¹ A. C. Pigou, *Industrial Fluctuations*, pp. 381-2.

² *Review of 1874*, p. 27.

³ *Ibid.*, p. 14.

⁴ *Review of 1875*, pp. 1-2. The tone in which business was carried on is illustrated by this rather unhappy report from the cotton industry (p. 23): 'A protracted series of internal misfortunes, brought about by over-production, aggravated by adverse external influences in the shape of bad trade and financial crisis in every centre throughout the world, have so demoralised the business community that pessimism is everywhere rampant. . . . Look which way we will there is not visible a single gleam of hearty hopefulness, and a thorough-going optimist is quite a curiosity.'

⁵ Pigou, *op. cit.*, pp. 381-2. See also *Review of 1875*, pp. 26-7.

both by men and masters'.¹ By 1875 reaction from each of these 'excesses' was under way, even the latter. Economies were scrupulously applied, wages reduced wherever possible.

Figures of unemployment, production, and foreign trade, however, do not justify the gloom of 1875. The production of cotton goods fell off slightly, but goods traffic (in tons) and pig-iron production increased, as did the value of foreign trade, despite a falling price level (1900=100):

| | Pig-iron | Cotton yarn | Coal | Goods traffic |
|------|----------|-------------|------|---------------|
| 1873 | 74.1 | 76.7 | 56.7 | 44.9 |
| 1874 | 67.4 | 78.0 | 55.6 | 44.5 |
| 1875 | 70.8 | 75.8 | 58.2 | 47.1 |

The Hoffmann index of consumers goods production declines slightly in 1875. The heavy weight given textiles probably accounts for this.² Consumption, except for beer,³ rises; Wood's general *per capita* index of consumption and real wages move as follows:⁴

| | Consumption | Real wages |
|------|-------------|------------|
| 1873 | 77.0 | 70.9 |
| 1874 | 76.7 | 73.2 |
| 1875 | 78.2 | 73.7 |

In 1875 the secular industrial pattern of the Great Depression became more clear: a falling interest-rate, falling prices, increased output and consumption, and bitter complaints from operators in heavy industry.

3. To contemporary chroniclers 1876 was 'a third year in the cycle of reaction and readjustment, marked by dull and limited trade, restricted confidence, the rigorous application of reduction and economies, lessened wages, and the failure of numberless commercial and manufacturing concerns unable to bear the pressure of adverse times'.⁵ Similar condi-

¹ *Review of 1875*, pp. 1-2. The lessons of depression were a recurrent subject of homily through the seventies and eighties.

² *Op. cit.*, pp. 392-3.

³ Beer consumption reached an all-time peak in 1874 with 34.0 gallons consumed per head in U.K.

⁴ Consumption index, Pigou, *op. cit.*, pp. 387-8; real wages, allowing for unemployment, Layton, Crowther, *op. cit.*, pp. 265-6.

⁵ *Review of 1876*, p. 1.

tions prevailed in the U.S., Germany, Austria, Russia, and Belgium. France, busy paying her war indemnity in 1871-3, suffered only a 'mild set-back'.¹ Easy money in 1876 did, however, stimulate some revival in Britain. Consumers of pig-iron, for example, replenished depleted stocks in the interim of cheap loans.²

Despite the generally unhappy atmosphere in which trade was conducted, the production of iron, steel, coal, and textiles rose, while building still boomed. In commenting on the prosperous condition of the timber trade, a report states: 'The greatly increased demand seems to be owing chiefly to the low price of money and to the inclination on the part of capitalists to prefer investments in substantial property in England to foreign stocks.'³

In the iron industry the foreign purchases of rails were less than half of what they were in 1872, but home consumption by ship-builders and engineers was well maintained.⁴ Two revolutions in the metal trades affected the production of iron in these years; steel rails were substituted for iron; and in the ship-building industry, iron superseded wood. Steel production rose as follows (1900 = 100):

| | | | |
|------------|------|------------|------|
| 1870 . . . | 5.1 | 1877 . . . | 18.3 |
| 1875 . . . | 14.7 | 1878 . . . | 22.8 |
| 1876 . . . | 17.3 | 1879 . . . | 21.0 |

At the same time the number of collieries had enormously increased. Under the stimulus of the coal famine (1871-3) capital had been directed on a large scale into coal-mining projects, involving a considerable period of gestation. Of the 3,933 pits open in 1875, 1,048 had been sunk since 1871.⁵

In textiles, as sales to industrial areas declined or stag-

¹ *Review of 1876*, pp. 1 and 4. Also A. Monroe, 'The French Indemnity', *Review of Economic Statistics*, preliminary vol. 1, 1920.

² *Ibid.*, p. 21. A similar movement in textiles, p. 25. A pick-up at the end of the year is noted also in the general description of trade, p. 1.

³ *Ibid.*, p. 19. Unemployment of carpenters and joiners in 1876 was 0.9 per cent., compared to a general average of 3.4 per cent. For some explanation of building prosperity see report from *Leeds Mercury*, p. 2.

⁴ *Ibid.*, pp. 21-2.

⁵ *Ibid.*, pp. 21-2.

nated, exports were supported by increased purchases in the East:¹

| | Cotton piece goods exports (in million yards) | |
|---------------------------------------|--|------|
| | 1875 | 1876 |
| Germany and Holland . . . | 116 | 103 |
| Turkey, Syria, and South Africa . . . | 282 | 323 |
| America and the West Indies . . . | 556 | 563 |
| British East Indies and Egypt . . . | 1340 | 1400 |
| China and Hong Kong . . . | 436 | 597 |

As noted above, total textile production rose slightly.

The value of exports, however, fell off, and the total excess (value) of imports over exports continued the increase begun in 1873 (1900 = 100):

| | |
|------------|------|
| 1872 . . . | 21.3 |
| 1873 . . . | 35.2 |
| 1874 . . . | 43.2 |
| 1875 . . . | 53.0 |
| 1876 . . . | 68.1 |

4. With the Bank-rate still at 2 per cent. in January 1877 and some slight recovery evident the conviction was general that the bottom of depression had been reached. Thomas's quarterly figures reveal the basis for this hope and the disappointment to which it was doomed:

| | | | | | |
|------|-----|-------|------|-----|-------|
| 1876 | I | +0.35 | 1877 | I | -0.31 |
| | II | -0.33 | | II | -0.76 |
| | III | -0.69 | | III | -0.92 |
| | IV | -0.61 | | IV | -1.05 |

For two quarters, coinciding roughly with the period of cheap money, the progress of depression was halted, only to accelerate in the following two years. The situation was aggravated by a disastrous harvest in 1877 (all indexes, 1900 = 100):²

| British harvest index | Price of British wheat | Retail prices |
|-----------------------|------------------------|---------------|
| 1873 | 84 | 218 |
| 1876 | 100 | 172 |
| 1877 | 78 | 211 |

¹ Review of 1876, p. 26.

² Harvest Index from Sauerbeck, annually in *Journal of Royal Statistical Society*.

Imports continued to rise and exports to fall off in value. In this cycle the import surplus, as well as capital imports, was at its peak in 1877. The temporary unbalancing of Britain's lender position led to elaborate controversy over the sense in which Great Britain was consuming its capital in goods imports.¹

Internally the iron industry continued the revolution created by the Bessemer process. The adjustment, coming in a time of depressed exports and falling profits, was painful,² although relatively full activity in ship-building helped support the home market.³ By the end of 1877 contracts for private and public building gave out, in some sections: 'At the opening of 1877 most of the masters had contracts yet to complete which promised to occupy them well into the new year. . . . As contracts undertaken in the previous years were completed there was absolutely nothing to go on with . . . it would seem as if the town (Leeds) were overbuilt.'⁴ Unemployment figures also place 1877 as the last year of great prosperity in building (per cent.):

| | | | |
|------|---|---|-----|
| 1876 | . | . | 0.8 |
| 1877 | . | . | 1.2 |
| 1878 | . | . | 3.5 |
| 1879 | . | . | 8.2 |

Among the other of Britain's basic industries, only textiles showed a net fall in output: cotton yarn produced (1900 = 100) moving from 78.5 to 76.2. Iron, coal, and steel produced in slightly higher amounts, although heavy unemployment in many districts attests to a growing productivity.⁵

¹ *Review of 1877*, pp. 9-10.

² *Ibid.*, p. 24.

³ Index of new vessels built (tonnage) (1900 = 100):

| | | | |
|------|---|---|------|
| 1872 | . | . | 50.3 |
| 1876 | . | . | 40.0 |
| 1877 | . | . | 47.8 |

Index of new merchant vessels built for home and colonies (tonnage) (1900 = 100):

| | | | |
|------|---|---|------|
| 1872 | . | . | 53.3 |
| 1876 | . | . | 48.8 |
| 1877 | . | . | 58.9 |

see also *Review of 1877*, p. 31.

⁴ *Ibid.*, p. 35.

⁵ *Ibid.*, pp. 37-8. See especially reports from Rotherham, Sheffield, and Durham.

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By the end of 1877 the depression assumed a new and aggravated character. Activity declined in all branches of trade. In December iron-producers in Birmingham were reported working at less than half time, producing chiefly for stock.¹

5. 1878 was a thorough-going year of depression. The condition of slowly rising production gave way to heavy unemployment and generally decreased output. Every index of trade, employment, and consumption presents a relative deterioration, except that for the steel industry which was operating under secular influences so strong that full cyclical depression failed to force a reduction in output.² The shift in the rate of decline that came in 1878 appears in these quarterly statistics of unemployment among iron-founders (per cent.):³

| | | | | | | | |
|------|---------|------|---------|------|----------|------|----------|
| 1876 | I 4.9 | 1877 | I 7.4 | 1878 | I 13.9 | 1879 | I 23.9 |
| | II 5.1 | | II 7.6 | | II 14.4 | | II 23.7 |
| | III 6.0 | | III 8.3 | | III 13.4 | | III 22.2 |
| | IV 7.6 | | IV 13.2 | | IV 16.9 | | IV 18.6 |

To contemporaries the chief complaint remained the necessity of cutting prices and profit margins to meet a declining demand. The problem of 'over production' was extensively explored. Price movements from 1873 were as follows⁴ (1900 = 100):

| | <i>Minerals</i> | <i>Textiles</i> | <i>Food</i> |
|------|-----------------|-----------------|-------------|
| 1873 | 130.5 | 156.1 | 155.1 |
| 1874 | 107.4 | 139.4 | 150.7 |
| 1875 | 92.5 | 133.3 | 144.9 |
| 1876 | 83.3 | 128.8 | 143.5 |
| 1877 | 77.7 | 128.8 | 146.4 |
| 1878 | 68.5 | 118.2 | 139.2 |
| 1879 | 67.6 | 112.1 | 130.4 |

The relatively easy fall in the textile index may be accounted for: by the maintained export demand from the East; the failure of cotton prices to rise as high in 1871-3 as those of minerals; and textiles' status as a consumption good.

¹ *Economist*, 1877, p. 1535.
² Thomas, op. cit., p. 61.

³ *Review of 1878*, pp. 27-9.
⁴ Sauerbeck indexes.

Bad harvests and relatively well-maintained money incomes kept the price of food-stuffs from sinking as rapidly as the other commodity groups. In its relatively temperate fluctuation the food index displays, of course, a conventional cyclical phenomenon.

Iron, coal, and textile production did not decrease heavily in 1878 despite the considerable rise in unemployment (production indexes: 1900 = 100):

| | <i>Pig-iron</i> | <i>Coal</i> | <i>Steel</i> | <i>Cotton yarn</i> |
|------|-----------------|-------------|--------------|--------------------|
| 1873 | 74.1 | 56.4 | — | 69.8 |
| 1877 | 74.2 | 60.0 | 18.3 | 68.5 |
| 1878 | 71.9 | 58.7 | 22.8 | 62.8 |
| 1879 | 67.4 | 59.6 | 21.0 | 63.6 |

The building industry was still finding a fair amount of work, although the full activity of 1873-6 had gone.¹ In some districts local government contracts for municipal building and schools constituted a substantial part of new construction.²

In value, foreign trade fell off in both imports and exports. Quantities, however, increased in many branches. The value indexes of foreign trade, corrected for price movements, show imports remaining at the same level as the previous year, exports rising slightly.

¹ *Review of 1876*, pp. 21 and 33. Although building unemployment rose, the consumption of imported wood in London increased:

| | <i>Sawn (in million pieces)</i> | <i>Hexen (in thousand loads)</i> | <i>Building per cent. unemployed</i> |
|------|---|--|--|
| 1873 | 14.3 | 234 | 0.9 |
| 1874 | 15.6 | 208 | 0.8 |
| 1875 | 17.3 | 285 | 0.6 |
| 1876 | 19.8 | 292 | 0.7 |
| 1877 | 22.0 | 253 | 1.2 |
| 1878 | 25.0 | 312 | 3.5 |

A report from Leeds states: 'Owing to the depression in other trades there is at present a great deal of empty house property in town, many families having, for the sake of economy, left their former dwellings and gone to live with their relatives and friends.'

² *Ibid.*, p. 33. Also *Review of 1877*, pp. 35-6.

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6. The bottom of depression and the beginning of cyclical revival came in 1879. In August and September a flood of new orders came from the U.S., and despite a disastrous harvest, by October 'a great activity of trade had fairly set in'.¹ Thomas's quarterly index also gives the third quarter of the year as the turning-point:

| | | |
|------|-----------|------|
| 1879 | I . . . | 2.48 |
| | II . . . | 2.69 |
| | III . . . | 2.52 |
| | IV . . . | 1.69 |

In the U.S., a great harvest, with increased grain shipments to Europe, and a partly consequent revival of railway building stimulated British iron exports. The American demand came unexpectedly and was 'unprecedented' in the size of its orders.² They came into Britain's iron districts at a time of extreme depression. Iron-founders' unemployment moved as follows in 1879³ (per cent):

| | |
|-----------|------|
| I . . . | 23.9 |
| II . . . | 23.7 |
| III . . . | 22.2 |
| IV . . . | 18.6 |

Exports of iron, steel, and tin plate illustrate vividly the extent to which the revival stemmed from iron exports to the North American continent⁴ (in thousand tons):

| | 1872 | 1878 | 1879 |
|---------------------------|------|------|------|
| United States . . . | 888 | 157 | 707 |
| Germany and Holland . . . | 816 | 557 | 502 |
| India | 69 | 210 | 195 |
| Australia | 94 | 205 | 165 |
| Canada | 165 | 101 | 156 |
| France | 108 | 112 | 106 |

The coal and shipping trades reflected the changed out-

¹ *Review of 1879*, p. 1. Also *Economist*, 1879, pp. 1121 and 1133. For agricultural position, see *Review of 1879*, pp. 43-5.

² *Ibid.*, pp. 20-3.

³ Thomas, *op. cit.*

⁴ *Review of 1879*, p. 21. Note also in the figures for 1872 and 1878 the manner in which exports to the East bolstered trade in the depression, and the steady level at which French purchases were maintained.

look immediately, and by the end of the year textiles, too, felt a revival.¹ The building trade, on the other hand, lapsed into serious depression with unemployment at 8·2 per cent.² Prices and profits completed their downward cycle in the year. The 1879 bulletin of Messrs. Ellison includes a table revealing the narrowing margin between prices and costs in the textile industry through the depression³ (in £ millions):

| | <i>Paid for cotton</i> | <i>Paid for wages</i> | <i>Total</i> | <i>Balance per pound for other expenses (in pence)</i> |
|------|----------------------------|---------------------------|--------------|--|
| 1873 | 44·6 | 25·9 | 29·6 | 6·35 |
| 1874 | 38·7 | 26·3 | 30·1 | 6·28 |
| 1875 | 35·9 | 26·1 | 30·6 | 6·04 |
| 1876 | 32·3 | 26·9 | 27·3 | 5·58 |
| 1877 | 32·8 | 27·1 | 26·6 | 5·40 |
| 1878 | 32·1 | 25·1 | 24·5 | 5·09 |
| 1879 | 32·0 | 23·2 | 24·1 | 5·00 |

7. By the end of 1879 prospects of trade with the East seemed to improve.⁴ In the depressed years those markets seemed at times to support exports in textiles and even in iron. But the depreciation of silver, in addition to famine harvests, cast a chronic shadow over British trade relations with India, China, and Hong Kong. Germany, in shifting to a gold currency, had disgorged an immense quantity of silver; by May 1873 the Scandinavian countries and Holland were off silver; the Latin Union had severely limited the coinage of silver in 1874 to prevent its gold supply from being drained off; the American mines increased their output.⁵ By 1873 the price of silver began a sharp continuous downward movement. The consequent depreciation of silver currencies made exports to the East difficult, increased the

¹ *Ibid.*, p. 24.

² *Ibid.*, p. 28.

³ *Ibid.*, p. 24. Total balance left for other expenses includes rent, taxes, gas,

coal, oils, dyes, repairs, interest on capital, and profits.

⁴ *Banker's Magazine*, 1879, pp. 539-41. Also *Economist*, 1880, p. 387.

⁵ R. Hawtrey, *Currency and Credit*, pp. 314-15 and 321. W. Bagehot, *The Depreciation of Silver*, pp. 41-57.

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burden of fixed remittances on investments and government obligations.¹ The Eastern exchanges on London moved as follows:

| | Calcutta per rupee | Hong Kong per dollar | Shanghai per taal | Bar silver per oz. d. |
|--------------|-----------------------|-------------------------|----------------------|-----------------------------|
| March 1872 . | 2/- | 4/4 $\frac{1}{2}$ | 6/6 $\frac{1}{2}$ | 61 |
| " 1875 . | 1/10 $\frac{1}{2}$ | 4/2 $\frac{1}{2}$ | 5/9 | 57 |
| " 1876 . | 1/8 $\frac{3}{4}$ | 3/10 | 5/3 $\frac{1}{2}$ | 53 |
| " 1877 . | 1/9 $\frac{3}{4}$ | 4/- | 5/6 $\frac{1}{2}$ | 55 |
| " 1878 . | 1/9 | 3/11 | 5/5 | 54 $\frac{1}{2}$ |
| " 1879 . | 1/7 $\frac{3}{4}$ | 3/7 $\frac{1}{2}$ | 4/11 | 49 |
| June 1879 . | 1/8 $\frac{1}{2}$ | 3/11 | 5/3 $\frac{1}{2}$ | 52 |

Increased exports of Chinese silk and Indian cotton, along with a cessation of silver sales from Berlin, seem to account for the improved exchange position in 1879.

8. In the years 1874-9 non-cyclical influences operated to change the capital and price structure of British industry. Quite apart from movements on the side of money, productivity and the competitive character of international markets tended to cause cheaper production and lower profit margins. This phenomenon will be dealt with only briefly here; but it lies at the heart of the Great Depression.²

The coal, iron, and ship-building industries underwent virtual revolution. In the two years after the coal famine of 1872-3 potential output in the mines was increased by the opening of 1,408 new collieries in Great Britain; in the decade preceding 1879, 150,000 employees were added to the trade.³ The transition to steel dominated iron, along with the introduction of new cost-saving processes which reduced by almost 30 per cent. the amount of coal necessary to produce iron. At about 1879 the basic process, a refinement of the Bessemer method, was introduced, permitting Cleveland iron to be used in steel manufacture, and eliminating the necessity of hematite imports on the former large scale. In the following five years the basic process came to dominate

¹ *Economist*, 1873, p. 1395. See also the *Indian Budget*, pp. 1019-21.

² This question is more fully discussed in Chapter III.

³ *Banker's Magazine*, 1879, p. 458, and *Review of 1874*, p. 26. Also *Review of 1878*, p. 27.

the steel industry.¹ The use of iron, and even steel, in ship-building kept British yards from serious inactivity at any time during this cycle.² It supported as well an iron industry grown dependent on railway orders. The desire to escape the tyranny of falling prices caused rigid economies to be applied. New cost-reducing machinery appeared in every trade, machine and tool makers were well employed until 1878.³

In the minds of many business men foreign competition was a prime 'cause' of depression. Reports are full of its menace.⁴ There is no question that Belgium, France, Germany, and the U.S. were capable of enormously greater capital goods output in 1879 than in 1873; moreover, depression produced a spawn of subsidies and tariffs that made competition more difficult.⁵ The pre-1873 British iron goods' monopoly had vanished; and the next coal 'famine' did not come until 1899.⁶

¹ L. Bell, *The Iron Trade of U.K.*, pp. 24 ff.

² *Review of 1879*, p. 23: 'A few contracts were for vessels constructed of steel, but these are as yet exceptional.' Also *Review of 1877*, pp. 31-2. For a recent excellent account of the iron and steel trades in these years see D. L. Burn, *The Economic History of Steelmaking, 1867-1939*, chaps. II, III, and IV. For the course of output and the nature of the demand for iron and steel in the depression of the seventies, see especially pp. 26-32.

³ For example see *Review of 1875*, p. 25. Before Committee on Depression and Trade (2689) L. Bell stated, 'the growing depression has stimulated invention in labour-saving devices'.

⁴ *Ibid.*, pp. 16, 22, 27. *Review of 1876*, pp. 4 and 24. *Review of 1877*, p. 29.

⁵ *Review of 1879*, p. 3. Only after the last quarter revival of 1879 could the *Economist* proclaim: 'the obscure and contemptible movement (so to call it) in this country in favour of revived Protection in the form of Reciprocity has died out.' The threat to free trade was only temporarily diverted, recurring chronically over the subsequent three decades, especially in years of cyclical depression, until broken by the defeat of Joseph Chamberlain in 1906.

⁶ According to L. Bell's statistics, Britain was manufacturing 53.2 per cent. of the world's iron in 1871, 42.7 per cent. in 1879.

V. LABOUR

| | Business cycle index | Unemploy- ment per cent. | Index of consump- tion | Indoor pauperism | Money wages | Real wages | T.U.C. membership (unions only, in 1000's) |
|------|----------------------------|--------------------------------|------------------------------|---------------------|----------------|---------------|---|
| 1873 | +1.32 | 1.2 | 77.0 | 94.8 | 88.6 | 70.9 | 509 |
| 1874 | +0.94 | 1.6 | 76.7 | 93.2 | 87.2 | 73.2 | 594 |
| 1875 | +0.51 | 2.2 | 78.2 | 90.7 | 86.0 | 73.7 | 414 |
| 1876 | -0.42 | 3.4 | 78.0 | 91.5 | 84.9 | 73.2 | 455 |
| 1877 | -0.76 | 4.4 | 77.7 | 95.8 | 84.4 | 70.9 | 565 |
| 1878 | -1.50 | 6.3 | 76.4 | 100.1 | 82.7 | 68.7 | 486 |
| 1879 | -2.35 | 10.7 | 74.3 | 107.0 | 81.6 | 67.6 | 412 |

1. The sharpest movement among the major variables from 1873 to 1874 was a rapid fall of prices, especially in coal, iron, and related capital goods. This process created strong pressure for an adjustment of wage rates in the affected industries. Where they existed the trades unions, swollen with power acquired during the boom, in many cases opposed such wage reductions with strikes; and occasionally workers found themselves locked out when agreement could not be reached. Although average unemployment did not rise over 4 per cent. until 1877, labour felt the pinch of narrowing profit margins in harder bargains and increased attention to labour efficiency.¹ With the peculiar moral aura with which this era surrounded economic problems, the *Economist* points the lesson:²

The almost universal excitement of 1871-2 had thoroughly disorganized both labour and commerce. The working people became intoxicated and unmanageable under rapid advance of wages, and rapid diminution of the hours of work; and the excessive profits of the coal, iron, shipping, and some other trades introduced into ordinary business a degree of recklessness which

¹ *Review of 1874*, pp. 1-2.

² *Ibid.*, p. 2. Also *ibid.*, pp. 18-19, in reference to the Sheffield iron and steel trades: 'The depression has obliged the employers to take further steps towards reducing the cost of production . . . it has been decided to reduce the wages of blast furnacemen . . . men at the works of Messrs. Cammell and Co., were asked to accept labourers' wages, a reduction of 9s. a week, whilst the machinery was idle. The men refused and the works were closed . . . the places of the men who turned out in opposition to the proposed extension of their time to 59 hours per week, have been filled up with difficulty.'

can only end in mischief. The reduced demand for labour has not only brought down wages, but it has also put an end to many of the rules adopted, under pressure from the trades' unions since 1871, directed to limitation of hours of work, abolition of piece work, restriction of the number of apprentices, &c. In many trades these prohibitions, if persisted in, would have been fatal. The working classes are now learning by the sharpest and rudest experience that combinations among themselves are powerless to control the markets for the products of labour; and, therefore, powerless to maintain wages and rules which the market price of commodities will not afford. And the lesson has not come too soon.

All general indexes, however, show a net improvement in labour's position in 1874. Wood's consumption index alone falls off for the year, but continues in 1875 its upward movement. The *per capita* consumption of beer reached an all-time peak for the United Kingdom in 1874.¹

2. The same kind of pressure for adjustment of wages to decreasing profits occupied the labour market in 1875:² 'Nothing is more certain than that there cannot be any extensive revival of industry over the world until prices and wages of every kind have thoroughly adjusted themselves to a level consistent with profitable returns to capital embarked in the various large fields of production.' The economic theory assumed in this quotation is obscure; but it is clear that entrepreneurs felt themselves ground between prices which fell easily and labour costs which could be reduced only with difficulty.

A turn towards depression appeared in labour statistics: unemployment rose, average money wages fell, the rate of increase of real wages decreased. Consumption, however, increased, the fall in retail prices aiding those with relatively fixed incomes:³

| | | | |
|------|---|---|-------|
| 1873 | . | . | 137.1 |
| 1874 | . | . | 131.5 |
| 1875 | . | . | 127.0 |

¹ Pigou, *op. cit.*, pp. 387-8—*per capita* beer consumption (gals.):

| | | | | | | | | | | | |
|------|---|------|------|---|------|------|---|------|------|---|------|
| 1870 | . | 30.2 | 1874 | . | 34.0 | 1890 | . | 30.0 | 1912 | . | 26.7 |
| 1873 | . | 33.5 | 1883 | . | 27.2 | 1900 | . | 31.6 | | | |

The secular decline from 1874 reflects, of course, the rise of the Temperance Movement as well as the fall in real wages after 1900.

² *Review of 1875*, p. 5.

³ Layton and Crowther, *op. cit.*, pp. 265-6.

Although strikes in opposition to wage decreases were common, and generally lost by the men,¹ the position of the working class was certainly not critical in Great Britain at this time. Nor was it as serious as in the United States or Germany, where the government was petitioned to 'take such measures as the budget allows for promoting a demand for labour'.²

British labour won a great legal triumph in 1875 with the repeal of the Criminal Law Amendment Act and the passage of the Employers' and Workmen's Act. At the same time limitation on hours of work and the employment of children in the mines (Act of 1872) were on a scale sufficient for owners to claim that costs had been raised 15 to 20 per cent.³ In 1876 the minimum age of textile workers was raised to ten, and hours limited to fifty-seven per week.⁴ These were concrete evidence of the long-run gains labour had made in the course of the previous boom.

3. The difficult downward adjustment of money wages continued in 1876. In coal, particularly, owners succeeded in forcing rates lower. The sinking of new shafts and various fuel-saving devices in iron had created 'over production':⁵ collieries operated four days a week in the Leeds area, and in various districts wages were estimated at from 35 per cent. to 75 per cent. lower than in 1873.⁶ But at the same time the Coal Mines Regulation Act was limiting the extent to which costs might be reduced,⁷ so that 'colliery owners remember 1876 as profitless and unsatisfactory . . . one of three things is likely to happen—either wages must come down, coal must go up, or ruin and bankruptcy must overtake many coal-mining concerns'.⁸

¹ For example, see *Economist*, 1875, pp. 34–5. Also *Review of 1875*, pp. 1, 17.

² *Ibid.*, p. 2. The German government decided to continue the state railway system in the face of falling revenues—'hope was expressed that the simultaneous commencement of these works would enable the iron and other manufacturing interests to take on their full sets of workmen'—an interesting early case of a public works programme designed to relieve unemployment.

³ *Idem.*

⁴ G. D. H. Cole, *A Short History of the Working-class Movement*, vol. ii, pp. 126–8.

⁵ *Review of 1876*, p. 29.

⁶ *Ibid.*, p. 3.

⁷ *Ibid.*, pp. 48–9 for analysis of effects of Coal Mines Act.

⁸ *Ibid.*, p. 29. See also pp. 30–1.

In South Yorkshire 20,000 miners struck, causing estimated losses of £500,000 to the owners, £230,000 to the men, £120,000 to the railways. Strikes and wage cuts from 7 to 15 per cent. were reported from every district connected with the coal and iron industries.¹

The *Review of 1876* reports also the failure of an attempt by the South Yorkshire Miners' Association to practise co-operative mining in Derbyshire.² The difficult environment for new enterprise proved too powerful, and the miners' association lost £31,000.

Although they commanded much attention and added measurably to the difficulty of adjustment, the strikes and drastic wage reductions were localized in the two basic capital trades. The general position of labour deteriorated slowly. Indoor pauperism rose slightly and unemployment increased; average money wages fell, and real wages (including unemployment) fell to the level of 1874. But the *per capita* indexes of general consumption and beer consumption both rose slightly.³

4. Strikes were considered 'one of the chief difficulties of 1877'.⁴ One hundred and twenty-one strikes occurred: 70 in building (where activity was still great but orders falling), 21 in coal-mining, 23 in iron, 22 in wire and store work, 18 in textiles, and the remainder in 9 other trades.⁵ Most of the strikes were begun with the tendering of notices to the men of wage decreases, although some of the building strikes took place on the men's demand for higher wages.⁶

¹ Idem, for Barnsley, Rotherham, Sheffield, and Cleveland. In the latter district the owners asked for a 15 per cent. wage reduction, arbitrators granted $7\frac{1}{2}$ per cent. There was also a strike between Messrs. Doulton and the Bricklayers' Union (*Economist*, 1876, p. 1226). This strike, however, concerned not wages, but the use of higher-paid artisans to adorn buildings with terra-cotta decorations. This task required special talents. But the labourers objected, insisting that bricklayers were adequate for the task. The company pleaded that under the circumstances 'the public would be denied the advantage of having their buildings artistically embellished'. The *Economist* insisted that 'public interests are in the end best served by leaving buyer and seller to fight out their own battles'. It may be regarded as regrettable that posterity was not afforded a voice in this decision.

² *Review of 1876*, p. 3.

³ See above, statistics at head of section.

⁴ *Review of 1877*, p. 8.

⁵ Idem, from *The Times* (4 January 1878), article by G. P. Bevan.

⁶ Idem.

In Cornwall a bitter dispute arose when the china-clay industry, like various of the newspapers, refused to employ union members. 2,000 trades' unionists were discharged and riots produced a 'reign of terror'. The men, under advice from their secretary, finally admitted defeat and returned to their work as non-unionists. In this and other strikes black-legs—non-unionist and foreigners—were involved in the effort to break the hold of the unions.

In some cases arbitrators were called in and their decisions accepted. The machinery of collective bargaining was developing rapidly—arbitration, conciliation, and sliding scales.¹ The acceptance of collective bargaining, the fact that money wage reductions could be made without serious reduction in real wages, and the impartiality of arbitrators as evidenced in compromise decisions (and, even in depression, occasional decisions for the workers)—these were important background to the Lib.-Lab. attitude which was to dominate labour over the next decade.

The consistent viewpoint of the liberal *Economist* in these disputes is illuminating. Of the instruments of conciliation it wrote: 'all these devices to secure agreement between masters and men are laudable and often useful, but they are palliatives, and no more. Masters cannot give and men cannot obtain as wages more than the means of consumers voluntarily will afford'.² The commentator's earnest desire for the working classes to understand the mystic process of the market is further revealed in these observations on the South Wales area:³

One chief cause of the badness of trade there is the Great Strike of three months duration in the early part of 1873; resulting in most exhausting losses both to masters and men. That strike was considered to be one of the great achievements of trades' union leaders, as represented on the spot by Mr. Halliday. The present distress must be relieved within reason, but it will be a serious dereliction of duty on the part of the local clergy and gentry if the working people are not very distinctly instructed in the relation of cause and effect between the refusal to work for good wages in 1873 and the impossibility of obtaining any wages at all in 1877.

¹ *Review of 1877*, p. 8.

² *Idem*.

³ *Ibid.*, p. 9.

5. The general position of labour became seriously worse in 1878. Average unemployment, rising through the year, announced the final phase of the depression. Pauperism moved decisively upward, consumption of food and beer slumped. The only movement favourable to labour was a fall in retail prices, which, in the previous year, had been affected by particularly bad British harvests:¹

| | |
|------------|-------|
| 1876 . . . | 123.1 |
| 1877 . . . | 127.0 |
| 1878 . . . | 123.0 |
| 1879 . . . | 115.7 |

‘Of strikes in all trades and of all sizes, there have been incessant examples, with the almost uniform results of the defeat of the strikers.’² Chief among these was the dispute in North Lancashire, where in April 30,000 weavers were locked out upon refusing to accept a ten per cent. wage reduction. The men put forward the theory that trade was dull because the operators were producing too much, that short-time, restricted production, higher prices, and maintained wage rates were the proper remedy. They finally accepted defeat in late June after riots and bloodshed, disagreement among the strikers and operators themselves, and disgust among the general public.³

In coal-mining wage reductions had ceased at a point where ‘miners are not now earning much more than half what they did in 1872-3’.⁴ Employment continued irregular for those who worked, and non-existent for many: ‘short hours of working which were formerly their own deliberate choice (1871-3), has become the miners’ stern necessity . . . the labour market is sadly over-stocked.’⁵

¹ Layton and Crowther, *op. cit.*, pp. 265-6. For detailed pauperism estimates showing its focus in the mining and manufacturing districts of the North, see *Economist*, 1878, p. 1348. In Caird’s estimates (*Review of 1878*, p. 2) British harvests were badly defective in 1875-6-7, the latter year marking a low point in yield per acre, equalled only once previously from 1849.

² *Review of 1878*, p. 1.

³ *Economist*, 1878, pp. 485-6, 490, 543-5, 639-40.

⁴ *Review of 1878*, p. 28.

⁵ *Ibid.*, 1876, p. 27. The ready-made clothing trade complains of fallen sales due to diminished purchasing power caused by unemployment and the ‘pinching effects of short time’ (*ibid.*, p. 34).

In iron, steel, and manufacturing districts, where a process of 'weeding out' had operated during the depression,¹ wages were lowered in many cases without opposition: 'the men were convinced that to hold out against a proposed reduction in the face of bad trade would be sheer madness, and have resumed their work with a reduction of wages.'²

6. The percentage unemployed among iron-founders moved as follows in 1879³ (quarters):

| | |
|-----------|------|
| I . . . | 23.9 |
| II . . . | 23.7 |
| III . . . | 22.2 |
| IV . . . | 18.6 |

Iron-founders were the first labour group to feel the benefits of revival. By the end of 1879 other indexes of employment showed improvement, but average figures for the year reveal a sharp drop in employment, wages, and consumption. The consumption of beer (1900 = 100), which had fallen from 106.6 in 1873 to 101.9 in 1878, went to 88.6 in the following year.⁴

A fall in wages and employment during most of the year and a pick-up in the last quarter appears in the local reports as well. In the iron and leather goods' industries at Leeds 'advances were conceded the men'.⁵ In the coal trade 'for the first nine months the men worked four days a week, but during the last three months the average has been from five to six days per week'.⁶ In the carpet factories of Halifax work was at full time and Christmas holidays curtailed.⁷ Wakefield reported, 'prices of manufacturing goods advanced, the demand for labour increased, and at the present time many of the local manufacturers, merchants, and tradesmen have some good orders on their books'.⁸ The 'overflow' of orders from America immediately stimulated employment in

¹ *Review of 1876*, p. 35.

² *Review of 1876*, p. 31.

³ Thomas, *op. cit.*

⁴ Pigou, *op. cit.*

⁵ *Review of 1879*, p. 27. The case of the Durham iron-workers illustrates clearly the pick-up. In January a 5 per cent. reduction was given the men after arbitration by Mr. Shaw-Lefevre; by the end of the year the company had voluntarily raised wages 12½ per cent. until the sliding scale came into operation in May 1880.

⁶ *Ibid.*, pp. 27-8.

⁸ *Ibid.*, p. 29.

⁷ *Ibid.*, p. 28.

the iron industry, and by the turn of the year, in finished iron, cutlery, machinery, coal, and textiles as well.¹

Workers in the building trade enjoyed no such revival. They underwent the kind of adjustment that their fellows in other industries experienced in the preceding years. Wages were lowered, trades' union regulations broken:² 'the operators are better to deal with and are willing to discard some of the regulations of their unions and to take employment which they formerly refused. The wages of operatives have been reduced. . . . Masons used to commence work at nine o'clock on Monday morning, but they now start at seven o'clock.'

¹ *Ibid.*, pp. 28-9. See Sheffield report giving the order of response among industries to the revival stimulated by exports to America.

² *Ibid.*, p. 28.

NOTE

THE PRINCIPAL STATISTICAL INDEXES

(All figures 1900 = 100, unless otherwise indicated)

1. The average Bank Rate. A. Sauerbeck, in the statistical summaries appearing annually in the *Journal of the Royal Statistical Society*, from 1886 on.
2. The average proportion of Bank reserves to liabilities, A. C. Pigou, *Industrial Fluctuations*, p. 397 (100 = 43 per cent.).
3. Rate on good three-months' bankers' bills in London. Pigou, *op. cit.*, p. 399. From T. T. Williams, *J.R.S.S.*, 1912, pp. 382-4 ('The Rate of Discount and the Price of Consols').
4. The average Bank Reserve. *The Bankers' Almanac*, 1930-1, p. 2413 (100 = £21.45 million).
5. Net foreign gold movements (until 1881). *The Statistical Abstract for the United Kingdom*, 1881.
6. Net foreign and internal gold and Bank of England note movements. From W. Beach's quarterly statistics, *British International Gold Movements and Banking Policy, 1881-1913*, pp. 46-7, 62-3, derived from the *Economist* Annual Reviews.
7. Business Cycle Index. From D. Thomas's quarterly figures, *Journal of the American Statistical Association*, 1926, Table II, facing p. 61. The index is the standard deviation from a secular trend, with seasonal fluctuations eliminated. Items included from 1868 to 1881 are the value of exports and per cent. unemployed iron-founders. From 1881 railway freight receipts are included; from 1885 Sauerbeck's price index for 'All Materials'.
8. Yield on Consols. Calculated from average prices given in W. Page, *Commerce and Industry*, vol. ii, pp. 224-5.
9. Enterprise Index. A seven-year moving average of new joint-stock companies registered, D. H. Macgregor, *Enterprise, Purpose, and Profit*, p. 195 (100 = 109). From Company Statistics.
10. Number of new joint-stock companies registered and total new nominal share capital. Stat. Abst. for U.K., 1896 and 1881 (number new joint-stock companies, 100 = 4,966; new capital, 100 = £221.8 million).
 - 10 a. Nominal capital per head of new joint-stock companies registered. W. Beveridge, *Unemployment*, pp. 42-3 (100 = £5.4 millions).
 - 10 b. Capital issued and money calls. In England, England

and elsewhere, Total. *Economist* annual reviews and *Investor's Manual*. The category 'In England' refers to issues which were floated entirely in Britain. The category 'England and Elsewhere' refers to issues which were floated in part within Britain, in part on the Continent, in the U.S., or elsewhere.

11. New capital issues in the United Kingdom and capital exports, C. K. Hobson, *The Export of Capital*, p. 223 (new capital issues in U.K., 100 = £100.1 million; capital export, 100 = £31.2 million). Issues in the U.K. are from the *Economist*. The figure for 1900 is swollen by the government Boer War loans. Capital export is estimated by subtracting from a residual item in the balance of payments—capital and interest transactions—an estimate of income from abroad.

12. Industrial and fixed interest security prices. From K. C. Smith and G. F. Horne, London and Cambridge Economic Service, Memorandum no. 47, 'An Index Number of Securities, 1867-1914', pp. 4 and 5 for annual averages. In the annual figures, given at the head of Section 2, the base has been shifted from 1890 to 1900. When monthly averages are given in the text, the original figures are used. The industrial index contains securities' prices representing the following industries: coal, iron and steel, engineering, electrical equipment, textiles, food, drink, building and contracting materials, lighting and power, chemicals, stores, transport and communications, and a miscellaneous item (containing from 1867 Martin Hall, silversmiths; from 1875, Milner's Safes). The fixed interest index is based upon a simple arithmetic average of separate indexes for the following securities: Consolidated 3 per cent., 2½ per cent., 2½ per cent. Local Loans 3 per cent. Metropolitan Board of Works, 3½ per cent. Consolidated, Birmingham 4 per cent. Debs. Gas and Water Annuities, 3½ per cent. Stock. Manchester 4 per cent. Debs. L.N.W. Railway 4 per cent., 3 per cent. Debs.

13. Capital goods' and consumers' goods' production. W. Hoffmann *Weltwirtschaftliches Archiv*, Sept. 1934, pp. 383-98, 'Ein Index der industriellen Produktion für Grossbritannien seit dem 18. Jahrhundert'. Base year shifted from 1913 to 1900. The indexes are weighted averages of output in various branches of production. Textiles are included among consumers' goods, making the index abnormally sensitive to exports in that line.

14. Average unemployment. W. Beveridge, *Unemployment*, pp. 42-3, col. 3. A weighted average of trades' union unemployment in the following industries: building, woodworking and

furnishing, coal-mining, engineering, ship-building, other metal trades, printing and bookbinding, textiles, and miscellaneous. From the Second Series of Memoranda on British and Foreign Trade and Industry, p. 98.

15. Average unemployment of engineers, ship-builders, and metal-workers; of carpenters and joiners; of woodworkers; of printers and book-binders, Pigou, *op. cit.*, pp. 381-2. From *Seventeenth Abstract of Labour Statistics and British Foreign Trade and Industry* (2nd series), pp. 89-92.

16. Exports of coal. Page, *op. cit.*, p. 154 (100 = 46.1 million tons).

Exports of iron and steel. *Idem.* (100 = 3.45 million tons).

Exports of cotton piece goods. *Ibid.*, p. 150 (100 = 5.03 bill. yds.).

Exports of machinery, mill-work, and motors. *Ibid.*, pp. 137 and 139 (100 = £22.1 million), from *Stat. Abst. for U.K.*

17. Value of imports and exports. Page, *op. cit.*, pp. 70-3 (imports 100 = £523 million; exports 100 = £354 million). From *Stat. Abst. for U.K.*

18. General prices (Sauerbeck Grand Total). Beveridge, *op. cit.*, p. 456, col. 5. For construction of this index see W. Layton and G. Crowther, *op. cit.*, Appendix A, pp. 225-35, or more completely, 'The Prices of Commodities and the Precious Metals', A. Sauerbeck, *J.R.S.S.*, Sept. 1886.

19. Textile, mineral, sundry material, and food wholesale prices. Sauerbeck annually in the *J.R.S.S.* from 1886. Base year shifted from 1866-7 to 1900.

20. Retail prices. Layton and Crowther, *op. cit.*, pp. 265-6. From G. H. Wood, 'Some Statistics relating to Working-Class Progress since 1860', *J.R.S.S.*, Dec. 1899, pp. 655-6. For description of index see Layton and Crowther, *op. cit.*, p. 232. Base year shifted from 1850 to 1900.

21. Production of pig iron. Page, *op. cit.*, p. 180 (100 = 8.9 mill. tons).

Production of steel. *Ibid.*, p. 181 (100 = 4.9 mill. tons).

Production of coal. *Ibid.*, p. 180 (100 = 225 mill. tons).

From *Stat. Abst. for U.K.*

Net tonnage of new ships. *British Trade and Industry*, 1903, Table xxix, p. 379 (100 = 944 thousand tons).

Production of cotton yarn, G. T. Jones, *Increasing Returns*, pp. 275-6 (100 = 1.5 billion lb.).

22. Goods' traffic on British railways. Page, op. cit., p. 170 (100 = 425 million tons). From *Stat. Abst. for U.K.*

23. British harvest index, Sauerbeck annually in the *J.R.S.S.* from 1886. Base year shifted from 1866-7 to 1900.

24. General *per capita* consumption. Pigou, op. cit., pp. 387-8. From G. H. Wood, loc. cit., pp. 655-6 (100 = 100.8). The commodities included are wheat, cocoa, coffee, cotton, currants and raisins, meat, rice, sugar, tea, tobacco, wool, wine, spirits, and beer.

25. Beer consumed per head. Idem. (100 = 31.6 gallons.) From Beveridge (1909 ed.) op. cit., p. 42 until 1880; subsequently from (Cd. 2145), p. 15 and from the Seventeenth Abstract of Labour Statistics, p. 15.

26. Money wages, real wages (full work), and real wages, allowing for unemployment. Layton and Crowther, op. cit., pp. 265-6. From G. H. Wood, *J.R.S.S.*, 1909, 'Real Wages and the Standard of Comfort since 1850', pp. 91-103. Money wages are given for workmen of unchanged grade. No account is taken of the shift in the average towards higher grades. Real wages constitutes money wages corrected for retail price movements, including rent. The allowance for unemployment is made by subtracting the average per cent. unemployed from the index for real wages, full work (1850 = 100). The base year has been shifted from 1850 to 1900.

27. Wages bill allowing for unemployment. Pigou, op. cit., pp. 383-4. From A. Bowley, *E.J.*, Sept. 1904, 'Tests of National Progress', p. 459 (100 = £710 million). For description of index see p. 458.

28. Indoor pauperism per 1,000 population. *Stat. Abst. for U.K.* (100 = 23.8).

29. Trade-Unions Membership. Cole, G. D. H., *A Short History of the British Working-class Movement*, Appendix, vol. ii.