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## CHAPTER TWO

# REVIEW OF ECONOMIC CONDITIONS,

1924-1933

### A. The Course of the Post-Inflation Business Cycles<sup>1</sup>

#### 1. DEPRESSION, HALTING REVIVAL, DEFINITE RECOVERY, 1924-1925

The stabilization of German currency tore aside the dense veil of paper marks that had obscured the

<sup>1</sup> Various business journals, monographs and official reports constitute the source for the materials presented in Part A. Particularly suggestive were *Reports of the Agent General for Reparation Payments, 1925-30* (Berlin, 1925-30); James W. Angell, *The Recovery of Germany*; Institut für Konjunkturforschung, *Vierteljahrshefte zur Konjunkturforschung*, Vols. 1-7 (Reimar Hobbing, Berlin, 1926-32); Fritz Naphtali, *Abbau und Aufbau: Rückblick auf das Wirtschaftsjahr 1925* (Frankfurter Societäts-Druckerei, Frankfurt a.M., 1926); Reichskreditgesellschaft, A-G., *Germany's Economic Development*, semi-annual analyses, 1926-32 (Berlin, 1926-32); C. L. Roedler, *Grundzüge der deutschen Konjunkturbewegung, 1920-25* (Frankfurt a.M., 1926); Erich Welter, *Wachstum: Die deutsche Wirtschaft im Jahre 1927*; and *Stockung: Die deutsche Wirtschaft im Jahre 1929* (Frankfurter Societäts-Druckerei, Frankfurt a.M., 1928 and 1930); also *Dreifache Krise. . .* (Societäts-Verlag, Frankfurt a.M., 1931).

features of German economy. With the return to an effective standard of money measurement, it is possible to see more clearly the variety of factors influencing that economy, no longer dominated by the phenomena of inflation.

*a. Post-stabilization Depression*

The period immediately following the currency reform was characterized by deep depression in most aspects of economic activity. Scarcity of money and credit, lethargy in production and trade, reduction of government and business staffs—reflected in sharp wage conflicts—were tokens of the economic difficulties.

An extraordinary lack of ready money intensified the need for credit. Interest rates were very high. The Reichsbank discount rate, which stood at 10 per cent in January 1924, was far below the market rates.<sup>2</sup> The central bank, therefore, sought to prevent a rush of credit seekers by the introduction of a rationing system.

After the return to the gold basis of reckoning, a decline in commodity prices was apparent. An even greater decline in prices was probably retarded by the slow abandonment of price-calculating methods and risk charges that had been prevalent during the period of inflation. The few available statistics of industrial production in the last months of 1923

<sup>2</sup> The average rate in January for day-to-day money was 87.64 per cent per year.

indicate that it was low. The number of unemployed receiving public assistance—which rose from 139,000 on August 1, 1923 to 1,533,000 on January 1, 1924—convey some impression of the extent of the decline.<sup>3</sup>

With the development of depression an inclination to clear away the debris that had accumulated during the inflation became apparent. Many Government officials and employees were dismissed. At the same time, private business was obliged to resort to wholesale reductions of staff. Everywhere in the clear dawn after the nightmare of inflation there was a calculation of incomes and costs. It was a calculation that generally led first to a scaling-down of costs by means of payroll reductions. Later it was to lead to technical 'rationalization'.

#### *b. Halting Revival*

The depression that began with the stabilization of the mark was pronounced in all aspects of German economy until January 1924. A scarcity of loan capital, declining prices, business inactivity and growing unemployment were its chief features. Symptoms of recovery were apparent from February to May. But there were also definite symptoms of depression during this period—tightness of credit, difficulties in the settlement of accounts, decline of security prices, a great increase in business failures and a general lack of business confidence.

<sup>3</sup> Statistisches Reichsamt, *Wirtschaft und Statistik*, Vol. 4, *passim*.

The relatively generous credit policy of the Reichsbank at this time was probably an important factor in the impulse to recovery. The low discount rate of the central bank ('low' relative to market rates) and its moderate rationing system made for a rapidly broadening flow of credit.<sup>4</sup> No doubt the Reichsbank was desirous of doing all it could to pull business out of the stabilization depression, but in the process it engendered a minor credit inflation. Its account for discounted bills rose from Rm. 39,500,000 on November 15, 1923 to Rm. 1,867,000,000 on April 7, 1924. About Rm. 1,000,000,000 of this increase occurred during February and March. For a moment there was danger of seriously threatening the recently achieved monetary stability. It was decided, on April 7, to hold to a rigorous policy of credit restriction by means of rationing advances. The directory of the Reichsbank ordered that the maximum limit of credit extensions be the amount already extended on April 7.

Indicative of the tightness of credit were the rates for monthly money, which rose rapidly in February and had almost doubled by the beginning of May. During most of this period there was a downward movement in the price level of stocks. The general decline in commodity prices that ceased in February was followed by an upturn lasting until the end of

<sup>4</sup>In the period February-May 1924, the average Reichsbank discount rate was 10 per cent; the average rate for monthly money was 35.3 per cent.

April—that is, until shortly after the restriction of credits by the Reich. Industrial production in general increased during the first months of 1924. There is also sign of more active business in the rising number of freight cars placed at the disposal of shippers and in the figures for Reichsbank clearings. The industries catering to domestic consumption were enlivened by the upswing of business, and, as a consequence, imports of raw materials rose considerably. Exports, however, did not keep pace with imports. Statistics of the labor market give further indication of growing business activity. For the first time since August 1923 a decline in unemployment was apparent. But reviving domestic activity did not mitigate business difficulties; on the contrary, the number of business failures increased steadily.

Thus the business revival during the early part of 1924 was a tempering of the depression that immediately followed currency stabilization. It was probably engendered by an expansion of credit that continued until bridled by the Reichsbank in April. The credit demands of private business were whetted by the discount policy of the central bank. The result was a mild recurrence of inflation—this time in bank credit rather than in paper marks. Brisker demand, especially for consumers' goods, set in. Prices rose, unemployment sank. But the stimulus was brief. Events during the middle of the year showed that it was something of a surface swell

that for a time stimulated the industries catering to domestic consumption.

After the restrictive policy of the Reichsbank had become effective, and the expansion of the purchasing power had ceased, there was little doubt that German economy was still depressed. During the summer of 1924 characteristics of depression were apparent: weakened consumer demand, falling prices, increasing business failures, reduced imports, growing unemployment and curtailed production.

A significant manifestation of depression at this time was an extensive reduction of the business machinery, a general retrenchment, which was particularly marked in banking and commercial organizations. It was reflected in growing numbers of unemployed. Also symptomatic for this period was the relation between the establishment and the liquidation of business enterprises. In the first months of 1924 many new firms were founded, but in the summer there was a large increase in the number of liquidations.

A favorable symptom among many unfavorable ones during the mid-summer of 1924 was a fairly steady drop in money rates. Somewhat easier credit conditions were reflected not only in a decline of interest rates but also in a general tendency to extend credits over longer periods. Easier money rates, together with a supporting action by the larger Berlin banks, made for a slight recovery of the stock market.

### *c. Definite Recovery*

Not until the middle of August, however, were there clear indications of improvement in business conditions. Probably an important influence in the direction of economic recovery was the promulgation of the Dawes Plan although "it simply served to set up the preliminary conditions—removal of the Allied pressure, stabilization of the national finances and currency, and the restoration of general confidence—which were necessary to make recovery possible." <sup>5</sup>

Among the first results of the Plan were the new Reichsbank and currency laws—expressions of the complete adoption of the Reichsmark currency—and the successful flotation of the German External Loan of 1924, amounting to 800 million marks. This loan was of especial importance not only because it was accompanied by a moratorium from reparation payments during the first year of the new Plan but also because it enormously strengthened the confidence of the outside world in the German economy. Foreign capital now began to enter the country in the form of private credits or of direct purchases of interest in German business concerns.

The growing inflow of foreign funds gave considerable relief. It made possible the resumption of projects that had been abandoned because of lack

<sup>5</sup> Angell, *op. cit.*, p. 77. The Dawes Plan was submitted by the First Committee of Experts on April 9, 1924. The Plan was approved by the responsible powers on August 16 and went into effect on September 1, 1924.



of capital; it restored self-confidence to business organizations. Some funds were converted into marks for the purpose of purchasing goods within Germany, thus supporting commodity prices; other credits were at once expressed in increased imports. With the beginning of this period of the placing of foreign loans, the German balance of trade became 'unfavorable', and this condition prevailed until the end of 1925.

During the autumn of 1924 there were reports of contract after contract for loans and for sales of interests in business organizations. In addition, a multitude of unrecorded agreements were concluded and there were considerable sales of securities on the stock exchange to foreign capitalists. Furthermore, the increased discounting of bills of exchange and the acceptance of drafts by bankers in England and the United States added considerably to German borrowings abroad.

According to the Institut für Konjunkturforschung the total of foreign loans extended to Germany by the end of 1924 amounted to approximately 1200 million Reichsmarks. Loans during the first four months of 1925 more than doubled this total. Although short-term<sup>6</sup> foreign loans were discouraged by the Reichsbank and the financial administration, because of the dangers that would attend their sudden withdrawal, a large volume was extended.

<sup>6</sup>Loans whose maturity period is more than one year are called 'long-term'; those of briefer maturity period are known as 'short-term'.

The business credits of the banks of issue—largely those of the Reichsbank—expanded rapidly during the autumn of 1924. Savings bank deposits, almost completely wiped out through the process of inflation, again began to accumulate. Also, as was to be expected from the large inflow of foreign funds, some relief in the money market was evidenced in a reduction of interest rates and in an improvement of credit conditions, particularly in the lengthening of the loan periods. Nevertheless, money rates remained considerably above those in France, England and the United States—testimony to the continuing scarcity of capital in Germany.

The stock exchange had, in general, been depressed since the return to a stable currency. A low price level for stocks reflected high interest rates and unfavorable business reports. A slow advance in the general level of stock prices began in the summer, and continued during the autumn and winter until February 1925. Thereafter the course of prices was generally downward.

Perhaps the most obvious manifestations of revival are indexes representative of industrial production and domestic trade. They show a fairly continuous rise from the summer of 1924 to the end of the spring of 1925. But by the summer of 1925 there were signs of decreasing activity. Increases in the prices of industrial commodities in foreign markets and the relatively stable German industrial price level made for an increase in German exports. However, an

even greater increase in imports augmented the import surplus. Unemployment was much lower in the winter of 1924-25 than in the corresponding season of the previous year.

The process of post-inflation business reorganization manifested itself in continued heavy business mortality. Probably most of the concerns then failing had been founded during the inflation period. Practices that had been attended with success at that time now proved dangerous. Short-time debts incurred during the currency inflation afforded easy means of procuring funds, not only for purposes of working capital but also to expand buildings and equipment. Under later conditions of monetary stability, however, Reichsmark loans were expensive and had to be repaid in full gold value at frequent intervals. It was perhaps inevitable, then, that many business enterprises founded on a minimum of capital must now, at a time of great capital scarcity, become dangerously embarrassed.

There is evidence, then, that by the beginning of 1925 German economy had recovered, relative to the very depressed state of the preceding winter. A glance at the unemployment statistics for the winter of 1924-25 shows that 'recovery' implied by no means anything like a complete absorption of the labor-power of the nation, and bankruptcy figures indicate that the weeding-out process begun in the summer of 1924 was still in full swing.

## 2. RECESSION AND DEPRESSION, 1925-1926

By June 1925 the first outriders of the impending recession had come into view. The collapse of the vast Stinnes concern early in that month dealt a heavy blow to business confidence. To be sure, a large consortium of banks intervened to prevent a panic, but the impulse towards tighter credit conditions and further declines of security prices was given.

The downward tendency of money rates ceased after April 1925. Indeed, rates began to rise, first slightly, then more precipitately in the summer. An increase in unemployment, a down-turn in indexes of industrial production, increases in the amount and number of bills protested, the growing number of business liquidations and bankruptcies, during June, July and August, are indications that the course of German economy had definitely begun to swing downward. During the autumn production continued to decline and unemployment rose rapidly. Prices fell, though only moderately. Foreign borrowings increased considerably, but, since they were largely conversions of short-time advances, they did not stem the recession.

It seems likely that the progressive stagnation of German business during the late spring and summer of 1925 was related to a continuing scarcity of loan capital. Just as revival in the autumn of 1924 and the following winter paralleled widespread

foreign borrowing, so the difficulties that became more and more apparent in mid-1925 were associated with a marked decline in the inflow of foreign funds. Prior to the War German economy was generally in a position to satisfy independently its capital requirements. It was relatively easy to convert short-term advances into long-term obligations by means of stock and bond issues. But in the post-inflation years the ability and willingness of the domestic market to supply capital to industry was much reduced. Thus, when foreign advances declined, or amounted largely to conversions of previous loans, German borrowers were unable to turn to supplies of domestic capital. The issue of stocks in the face of a weakened stock market was difficult, and the demand for bonds was so slight in 1925 as also to make their flotation inadvisable.

Enterprises that needed credit, therefore, had to resort to short-term borrowing. Demands for funds overwhelmed the banks. The desire to preserve liquidity caused them to turn down fresh demands for money, and even to call in older loans, especially smaller advances. Banking policy was rather more lenient with larger debtors than with smaller. A restriction of credit advances to the large organizations would at once have resulted in the abandonment of large projects and the sudden dismissal of many workers. Credit retrenchment, then, was made possible by recalling medium and small loans.

In the autumn of 1925, since it was almost impos-

sible for industrial and commercial organizations to consolidate debts, they had to seek short-term loans from the credit banks. As it became more and more apparent that repayment would be difficult, the banks, afraid of frozen credits, pressed for settlement and restricted further loans. This, of course, made the situation all the more tense.

During the autumn and winter of 1925-26 industrial production—in most branches, at least—fell considerably below the levels it had reached in the earlier part of 1925. Raw materials and semi-manufactured goods constitute roughly half of Germany's total imports, and the greater part of the decline in imports at this time was in this category. It is probable that industrial difficulties were a determining influence towards restricting such imports, inducing manufacturers to rely as much as possible on accumulated stocks and more or less to limit production. Various indexes of domestic trade, too, showed marked declines in the autumn and winter.

One of the most serious aspects of the recession was the great increase in unemployment during the winter of 1925-26. Until October the number of unemployed increased slowly, but thereafter it rose rapidly. A growing number of business failures was another striking reflection of the business decline during the autumn and winter. This was probably part of the process of slow readjustment from conditions of inflation. The sudden recession may have precipitated the eradication of many superfluous

business enterprises.<sup>7</sup> The majority of business organizations failing in this period were engaged in trading rather than in manufacturing; this indicates the extent to which the inflation had stimulated uneconomic distribution of goods. It is difficult, however, to estimate the gravity of the effects upon German economy of these many failures because the size of the liabilities was not reported.

The recession, as reflected in unemployment, commercial failures, curtailed industrial production, inactivity on the security markets and reduced volume of domestic trade, probably reached its nadir in January and February 1926. But at that very time signs of easier credit conditions became apparent. The first impulse in this direction would seem to have come from inflowing long-term loans, mostly from the United States. They allowed funding of debts and considerably lightened the burden of the banks. As hand in hand with this capital inflow the rates for short-term loans declined, the inclination to purchase long-time paper awakened among investors. A remarkably strong demand for mortgage

<sup>7</sup> From 1914 to 1923, comprising the whole period of the war and the inflation, about 10,000 new stock companies and about 45,000 limited liability companies had been added to the number previously existing, and this growth became accelerated toward the end of the period, under the unhealthy stimulus of inflation. It was only natural that the principal part of the failures should be among these newer concerns; during the first ten months of 1925 two-thirds of the failures were of concerns founded since 1919, and in the five succeeding months, which comprised the most acute period of the crisis, 58 per cent were of such concerns." *Report of the Agent General for Reparation Payments*, June 15, 1926, p. 45.

bonds developed. Share prices fell throughout the second half of 1925, but after the beginning of 1926 recovery was surprisingly quick, owing partly, perhaps, to increased purchases of stocks by foreigners.

The extreme form that the recession took—widespread business failures and record unemployment—was a manifestation of industrial reorganization that became especially apparent at a time of economic decline.<sup>8</sup> The recession was not the reflection of difficulties in banking; rather, it was expressed in the withdrawal of credit from unprofitable concerns, many of which had been unable to change practices instituted during the inflation and were still relying, for working capital, upon short-term loans. Other concerns, representing the great majority of German business organizations, proceeded to effect a sweeping reorganization that was not limited to improving internal methods of administration and production, but in the case of many of the largest industries amounted to rebuilding the business plant itself.<sup>9</sup> Thus, burdens remaining from

<sup>8</sup> That the extent of business failures and unemployment was greater than the decline in production is apparent in many economic reports of the time. Of course, production did decline considerably, but not in the same proportion as the number of employed workers. For example, production of coal was only 5 per cent less in January 1926 than in January 1925, but the number of workers was reduced 15 per cent. Here is an indication of drastic reorganization, which in this case meant the closing of inefficient mines. Similar reorganization was taking place in other industries. The great unemployment and heavy business mortality, therefore, must be looked upon not only as a reflection of recession but also as an ugly aspect of 'rationalization'. (*Frankfurter Zeitung, Wirtschaftskurve*, 1926, I, pp. 4, 5.)

<sup>9</sup> The activities of two giant enterprises—the *Interessengemeinschaft*



the inflation were removed. Unfruitful users of short-time credit retired from the market, while in other quarters perfected administration admitted the accumulation of funds for the repayment of debt and the increase of working capital. As progress was made in these directions, the volume of available funds increased and the cost of credit to sound borrowers declined.

The recognition of the mistaken policies of ten years, of the superfluity of business organizations, of contradictory industrial plans, led to an eager will to recast thoroughly the German productive machinery. This was the period when the shibboleth 'Rationalisierung' was shouted from every hill-top. American methods of production, 'Fordism', 'rationalization'—these were the topics of the day.

### 3. RECOVERY AND PROSPERITY, 1926-1928

#### *a. Business Consolidation During Depression*

The spring of 1926 was a period of reorganization and realignment during depression. The ranks of the unemployed were still swollen but production was increasing. The growing number of railway cars placed at the disposal of shippers, and especially the decline in business failures and protests of bills für Farbenindustrie and the Vereinigte Stahlwerke—at this time were characteristic of the process that was so general. Both organizations concentrated their productive plants in the most suitable localities; both introduced sweeping technical improvements; at the same time, agreements were concluded with foreign producers (*Ibid.*, June 1926, p. 119).

of exchange indicated that, so far as business activity was concerned, the low point had been passed.

Seasonal factors strengthened the tendency towards recovery. However, the stocks of goods that had accumulated during the recession were diminishing and production was stimulated to an activity that was more than seasonal. An export surplus continued until June, and this, too, helped to reduce the stock of domestic goods. Thus German economy independently worked itself free from its previous unliquid condition.

Although internal factors were probably responsible in large measure for the revival of German production, various influences that had their origins abroad were of great importance in maintaining and strengthening it. One such factor was the protracted English coal strike. The German coal industry, of course, was the first to profit by the decline in England's coal production. Before long, however, the iron industry, too, found itself called to fill increasing foreign orders.

Moreover, the stabilization of the French currency late in 1926 may have been favorable to the recovery of Germany's foreign trade. In 1924 and 1925 German exporters had been subject to the competition of exports in countries with inflated currencies. To estimate the full implications of such competition is difficult, but during periods when declines in currency exchanges had outrun price adjustments in the countries of inflation, it was

probably severe. Competition of this sort had largely ceased by the end of 1926.

Furthermore, the relative liquidity of the money market and the concomitant rising activity in the stock market during the spring of 1926—one of the earliest indications of returning business optimism—were probably related to an increased inflow of foreign capital.

Easier credit conditions now enabled many business organizations to repay part of their short-term debts, or to convert them into longer-term obligations, to a large extent by foreign borrowing. In the money markets the growing liquidity was reflected in an expansion of the volume of funds offered for short-term investment. Short-term money rates declined rapidly during the early part of 1926, reaching a level of relative equilibrium in April. The economic organization also showed itself able to absorb large volumes of new long-term issues, and the rates on such issues tended to decline. Nevertheless, the long-term market generally continued to be ruled by relatively high rates. The large amounts of government loans that were offered probably restricted the supplies of long-term funds available for industrial and commercial purposes and so tended to keep rates high.

As noted above, a continuing inflow of long-term foreign credits undoubtedly played an important part in influencing the return of easier credit conditions. Probably large amounts of capital funds were

accumulated by business enterprises but their amount is difficult to estimate. Savings bank deposits, issues of bonds and stock shares, life insurance premium payments, however, indicated that there were considerable accretions of domestic capital.

The Reichsbank found in December 1925 that the practice of rationing credit—instituted as an emergency measure in April 1925—was no longer necessary. Early in January it was abandoned. Thereafter, the central bank, aside from its usual discrimination in the purchase of eligible bills, attempted to limit the use of its credit by relying exclusively upon the bank rate.

Thus, diminishing domestic stocks of goods, various stimuli to exports and relatively liquid credit conditions provided the support for a general revival of German economy in the spring of 1926. Unusual supplies of credit at relatively low rates, together with confidence in industrial earning capacity—provided by progress in industrial reorganization—soon carried stock prices to points above those reached at the peak of the upswing in 1925. Various indexes of domestic trade—such as freight car loadings, Reichsbank clearings, postal check traffic—bear witness to the accelerating recovery during 1926.

As indicated above, acute manifestations of the depression of the winter of 1925–26 had been the rapid rise in unemployment and the great number of business failures. Although the latter declined rapidly during the spring of 1926, unemployment

remained high throughout the year. The closing of many business enterprises had much to do with accelerating the rise of unemployment during the recession and probably accounted for much of it even in the summer of 1926. But a more continuous factor was the radical reconstruction that German industry and commerce were undergoing in the interests of economy. Unemployment in this sense is to be regarded less as an inheritance from the depression than as an aspect of the structural readjustment of the entire business system.

*b. Expansion*

By the end of the winter 1926-27 the British coal strike had ended and the inflow of foreign capital had slowed down. Nevertheless, German economy continued to expand at an accelerating tempo. Sales on both the security and the commodity markets were increasing. Production in the coal, iron and manufacturing industries, particularly in those making consumption goods, rose substantially. Indeed, it may be said that every branch of industry took part in the revival. The recovery seems to have been quite as uniform in domestic business activity. Increased domestic business made for a large volume of imports, and the import balance grew. Furthermore, it was reflected in fuller employment of labor and in increasing financial security of industrial and commercial enterprises. Thus during 1927 recovery broadened into a period of prosperity that continued

without serious interruption until the middle of 1928. German commerce and industry were more active than at any time since the War.

As noted above, credit expansion, based upon Reichsbank extensions and upon foreign loans, stimulated the process of expansion. However, reviving economic activity made for rapidly increasing demands for credit, money rates advanced, and by the middle of 1927 increasing tension in credit conditions became apparent.

The level of stock prices had been rising rapidly and with little interruption since the beginning of 1926. This was in part related to growing confidence in the earning capacity of German industry, but it was felt by the Reichsbank authorities to be even more a reflection of easy money conditions that gave support to speculators. The rise in stock prices was considered to be disadvantageous to German economy for it was believed that high stock prices must bring in large amounts of foreign funds, which would be withdrawn again shortly with speculative profits, and would lead to loss on the part of the German credit structure. Finally, in May 1927, by initiating an agreement among the leading private banks to curtail drastically stock exchange credits, the Reichsbank took steps to curb speculation. Announcement of this agreement precipitated a sudden and rapid fall in stock prices.

The Reichsbank had been out of technical contact with the money markets during most of 1926

and was obliged to exercise its influence by means other than the discount rate and credit control. In the early part of 1927 it took steps to regain the control of credit. For this purpose, it attempted to limit the offers of foreign credit and the public funds, both of which had been important factors in rendering the bank rate inoperative. This policy for a time proved effective. During the first half of 1927 the volume of long-term loans from abroad was drastically reduced. Short credits, however, continued to flow into Germany in considerable volume. On the other hand, a counterflow of German credits to foreign countries revealed a revival of German capacity to invest in foreign countries. Idle government funds, which at times had been a disturbing influence in the money markets, were much diminished in 1927. As the banks of issue, of which the Reichsbank is of chief importance, continued to expand their business credits, the stimulus initiated by foreign funds was retained by means of domestic credit expansion. Thus for a time the Reichsbank policy had a measure of success. But the power of the domestic market to meet the capital needs of German economy proved inadequate, and by late spring 1927 a revival of foreign borrowing was evident. Interest rates advanced, and the central bank was forced to raise its discount rate. The demands for loan funds were very heavy, not only on the part of industrial and commercial enterprises, but also from agriculture, which, because of two years of short

crops, was in considerable credit difficulties. Further, large borrowing operations by the public authorities added to the tension on the capital markets. Foreign long-term loans continued to be placed in large volume. Short-term borrowing, too, was considerable. Nevertheless, the tension in the credit markets did not relax. The brief period of credit liquidity and of a slackened inflow of foreign funds had ended.

Despite large imports of foreign capital and the implied confidence in German economy, despite the growth of domestic capital supplies, interest rates remained high. The urgency of Germany's needs for capital led to demands that could not be satisfied except at high rates of interest. An insufficient supply of capital hampered the German economy throughout the years here considered. Capital scarcity was an ominous under-current over whose surface the industrial and commercial activities of the nation rose and fell.

#### 4. RECESSION AND DEPRESSION, 1928-1932

##### *a. Slow Decline*

Consideration of the credit situation and the declining volume of production, together with the continued high level of trade and consumption, leads to the conclusion that by the middle of 1928 German economy had entered a fairly late phase in the process of expansion. Substantial capital ex-



penditures in industry and housing accommodation were paralleled by a growing stringency of capital supplies. In view of the tightening of the money markets abroad there was little prospect of easier credit conditions. German economic activity, so closely dependent upon the international credit situation, was beginning to slacken. The stock market was inactive, the import balance had begun to decline, and industrial production, although large, tended to diminish. Costs of production, however, were rising, and commodity prices at wholesale continued to advance.

Definite evidence of retardation in the rate of expansion, and even of absolute decline in activity, is afforded by various production series. During the spring output in the iron and steel industries declined considerably and would have fallen more but for sustained exports. However, the volume of domestic trade continued on the whole to run higher than in 1927. There was thus a contrast, in the first half of 1928, between a large volume of trade and a moderate decline in the volume of production.

Unemployment in the winter of 1927-28 had been much less severe than in the preceding two winters. But the seasonal decline during the spring and summer of 1928 was not so pronounced as in 1927. The number of business failures, too, showed a rise over the levels of the preceding year.

During the autumn of 1928 and the winter of 1928-29 further indications of a decline in German

business activity were evident. Factors of an extraordinary nature were involved. A labor dispute in the Rhenish-Westphalian steel and iron plants led to a lockout in November and the first few days of December that reduced their output suddenly and to a very large extent. The effects of the lockout, of course, extended into branches of production and trade related to the iron industry. With the resumption of work in the mills a pronounced increase in production took place. This must be considered, at least in large part, as compensation for the drop in production during November.

Production and distribution were further affected by an unprecedentedly severe winter. The average temperature in February was the lowest since the inauguration of weather records in Berlin early in the eighteenth century. A great amount of outdoor work had to be abandoned during the long period of extraordinary cold from December to March, and much indoor work dependent upon uninterrupted material supplies and regular distribution was also disturbed.

Germany's position as a heavy borrower of foreign capital made its economy sensitive to changes in the international money markets which were especially marked in the twelve months after the middle of 1928. Several factors tended to reduce the volume of German borrowings from abroad, and, for a time in the spring of 1929, even led to heavy net withdrawals of foreign funds. Chief among these

factors were the extraordinary speculative activity in New York, which until the autumn of 1929 attracted money from all parts of the world and tended to tighten the market for long-term investments; in addition, the uncertainty of the protracted negotiations on reparation payments tended to discourage long-term loans. The United States, which had provided most of the long-term funds invested in Germany and a large share of the short-term loans, now changed its position from lender to borrower in the international markets. The withdrawals of American funds in Germany during the autumn of 1928 were offset by new loans from various European countries. In the late winter of 1928-29 and in the spring of 1929, however, there was a net outflow of foreign funds from Germany, accompanied by a transfer of domestic funds abroad. In May it finally became evident that an agreement on reparations was about to be reached, and considerable money returned from abroad; this more than made up for the previous outflow. Nevertheless, it seems probable that uncertainties involved in the reparation meetings had been sufficiently strong to restrain German business enterprises effectively.

The tightening credit situation reflected itself in the security markets. After the beginning of 1929 stock prices weakened considerably and a fairly continuous decline set in.

As was noted above, industrial production was declining towards the end of 1928; in the winter of

1928-29 it fell to low levels. However, an increase occurred during the late spring and summer of 1929. Manufactures for export were greatly stimulated by favorable conditions in world trade. Furthermore, the extraordinarily long and severe winter had tended to postpone capital expenditures so that building construction practically did not begin until late spring. Subsequently, however, nearly all branches of industry experienced a heavy reduction in unfilled orders, bringing about a severe decline in industrial activity.

Figures relating to domestic trade show fluctuations very similar to those in indexes of industrial production. Large declines during the winter were followed by increases in the second quarter of 1929 that reflected a larger volume of trade than at the same time in 1928. This activity, too, was doubtless in large measure a compensation for the winter shrinkage. The volume of imports declined after the second quarter of 1928, but exports, particularly of finished goods, rose. Domestic demand was falling off, but the expansion of sales abroad retarded the effects on production.

Unemployment, as might be expected, was very great during the severe winter of 1928-29. It declined with the return of warmer weather, but in the autumn again rose rapidly. Business difficulties also were becoming more apparent, as reflected in the number of business failures and in the nominal amounts of bills protested.

Recession was not unmistakably apparent until the summer of 1929. After then, however, there was no doubt that activity was gradually declining and that the probability of depression in the near future was strong. To be sure, the intense strain in the money markets disappeared for a time in the autumn of 1929 and the spring of 1930. This was primarily the result of a decline in capital expenditures and a lessened demand for capital, which in turn proceeded from curtailed production, particularly of building and other forms of construction, declines in domestic trade, and a rising export balance of trade, together with a resumption of capital imports. In 1930, the general decline was accelerated. Doubt and hesitation had been introduced into German business enterprise by the events accompanying the efforts of the 'Experts' Committee' in Paris to effect further settlement of the reparation problem. Disorder in the public finances continued to be a serious factor of disturbance—particularly with respect to the cost of credit. Now, the decline in business activity in numerous other countries, reflecting itself conspicuously in a general fall of commodity prices, was a further element making for recession in Germany. During 1930 and 1931 prices of securities and commodities declined almost without interruption, industrial production and domestic trade fell off, imports were reduced and unemployment rose. Exports continued fairly high (although they

too were falling), tending to retard the downward movement.

*b. Deepening Depression*

Thus in the middle of 1930 Germany was in a deep depression, a situation similar to that in other industrial countries. But Germany was peculiarly sensitive to disturbances at home and abroad, especially because of its vast short-term indebtedness. As was indicated above, credit conditions became somewhat easier during the first half of 1930, and foreign funds were again available in considerable volume. But revelation of the strength of the extreme political parties in the Reichstag election in September 1930 led to sudden distrust of Germany's economic stability. For some weeks thereafter the outflow of foreign capital was heavy. Although by the end of the year funds were returning, foreign creditors remained alert and apprehensive.

In the late spring of 1931 a series of economic and political disturbances, issuing immediately out of the failure of the Austrian Creditanstalt, impinged upon German economy and gave the impulse for renewed exports of loan funds. By mid-summer the outward flow of capital had taken on the aspect of a panic, and the financial structure of Germany was threatened with collapse. Approximately 2.9 milliard Reichsmarks of short-term credits were withdrawn in the first seven months of 1931, largely in June

and July.<sup>10</sup> The summer witnessed several bankruptcies involving leading commercial organizations and insolvency on the part of several large banks. The panic reached its climax in July and August, when the banks were temporarily closed. The stock exchanges were closed for the remainder of the year. Extraordinary measures of exchange and credit control by the Reichsbank and the Government, a moratorium of political debts and conclusion by leading creditors of a 'Standstill Agreement', intended to retain foreign funds subject to partial repayment from time to time, were attempted to relieve the highly critical tension. However, funds continued to flow out. It is estimated that about one milliard Reichsmarks of short-term foreign debts were repaid between July and November.<sup>11</sup> The reserve and credit position of the Reichsbank was strained to the utmost by the withdrawals of credits from abroad. Government support was extended to the banks. By a series of 'emergency decrees' the Government was able to exercise considerable control over private enterprise in general.

The decline in industrial production seemed to be slackening somewhat during the spring of 1931. But the capital withdrawals and the credit panic during the summer led to renewed and sharp reduction. Output in all industries declined progressively throughout the remainder of the year and well into

<sup>10</sup> Report of the Special Advisory Committee, etc., *Economist*, January 2, 1932.

<sup>11</sup> *Frankfurter Zeitung*, November 1, 1931, p. 5.

the spring of 1932. However, output of consumption goods fell off somewhat less than that of production goods.<sup>12</sup> The labor market was further seriously undermined from the summer of 1931 to the summer of 1932. Reduced industrial production, of both cyclical and seasonal nature, led to record unemployment of approximately 6,200,000 workers by March 1932.<sup>13</sup> The income of the working population was further drastically reduced, not only because of growing unemployment, but also because of a larger proportion of part-time work and lowered wage rates.

Problems of government finance became more serious as the general decline continued. More and more the Reich, state and local governments were forced to attempt to reduce expenditures and to find new sources of revenue. But their efforts were hampered increasingly by the demands for social relief and the lowered national income. Thus the burden of government on the economy became heavier during the course of the depression.

Reduced income and the gradual depletion of reserves of purchasing power (which hitherto had helped to lighten the burdens of depression) were reflected in declining domestic trade and consumption. It is likely that the quality, as well as the quan-

<sup>12</sup> By mid-summer, 1932, the output of production goods had fallen to 50 per cent of the 1928 average, whereas the output of consumption goods was maintained at about 75 per cent of that average.

<sup>13</sup> In this period, too, 'invisible' unemployment was much increased; see Ch. II, footnote 52.



tity, of goods consumed was lowered. Commodity prices declined further, until by the middle of 1932 the general price index was about 5 per cent below the level of 1913. Foreign trade, too, was diminished in value. Imports, reflecting the reduced industrial output, tended to decline throughout the year after the summer of 1931. Exports rose for a time in the autumn of 1931, particularly in response to large orders from Russia, but thereafter fell steadily and rapidly. Increasing hindrances to foreign trade and the competition of countries with depreciated currencies seem to have hastened this decline.

The pressure on the German credit structure remained heavy during the autumn of 1931 and the subsequent winter. Faced with declining deposits, the commercial and savings banks found impossible any corresponding reduction of outstanding credits. The demands made on them could be met only by continued large discounts of bills with the Reichsbank. Consequently the credit of the Reichsbank expanded markedly at the same time that its reserves of gold and exchange were reduced. The decline of the surplus of exports over imports necessitated the continuance of rigid control over foreign exchange and further agreements with Germany's creditors leading to reduction of interest rates and conversion of short-term advances into long-term credits. However, during the early months of 1932 a decline in the volume of commercial bills drawn and in the banks' demands on the Reichsbank, a retardation of

the decline in savings bank deposits, and the resumption of official trading on the German security markets, indicated that the strain associated with the credit panic had relaxed.

#### 5. HESITANT REVIVAL, 1932-1933

The long depression seems to have reached its nadir about the middle of 1932. Thereafter a restoration of business confidence was increasingly evident. Chief among the factors making for revival was a resumption of production that compensated for the extraordinary declines of 1931 and early 1932. Industrial output was so much contracted after the credit crisis that it was insufficient to meet current consumer demands and the needs of maintaining industrial equipment. Thus, at least a measure of revival was necessary to increase nearly exhausted stocks of retailers, jobbers and manufacturers, and to make industrial repairs and replacements. Moreover, as the necessity to liquidate old commodity stocks disappeared, the downward pressure on the price system relaxed. The steadying of prices in itself was a stimulus to renewed activity in industry and trade. Furthermore, the Lausanne agreement (June 16, 1932) to suspend reparation payments and the strenuously renewed efforts of the Reich government to expand production and employment led to an improvement of business sentiment.

Production in many lines of industry became increasingly active during the autumn; in others, the decline in output was checked. The general index of industrial production rose by nearly 10 per cent in the three months, August to November. Improvement was most marked in the building, coal, iron and consumption goods industries. Increased production led to an expansion of employment. The various indexes of industrial employment show considerable rises from August to November, in contrast to declines during the corresponding periods of 1930 and 1931. Domestic trade was enlivened, too, though more as a result of restocking by distributors than because of increased consumption. Measures of consumption, indeed, indicate continued decline during the second half of 1932. Commodity prices generally fell less rapidly, and there were pronounced rises in many raw materials prices. In consequence of steadier prices and increased industrial activity, imports of raw materials and semi-finished goods rose. Exports also showed a revival in the autumn, but this was largely a seasonal movement.

The provisional consolidation of Germany's short-term foreign indebtedness, together with the virtual cancellation of reparations, contributed to greater liquidity in the money markets. During the autumn interest rates declined, the pressure of banks on their debtors was reduced, and the prospects for converting short-term credits into long-term loans improved. The prices of stocks, reflecting the easier

credit conditions and the industrial revival, continued to rise gradually. Signs of growing business security were manifest in the declining numbers of bankruptcies, receiverships and bill protests. Nevertheless, new long-term credits remained difficult to obtain except at costs that made their profitable use seem very doubtful.

Seasonal influences during the winter of 1932-33 interrupted the rise in industrial output, employment and trade, but in the early spring of 1933 the general advance was resumed. Prices of raw materials and finished goods became firmer, and this tended to make more satisfactory the relationship between industrial costs and income. But difficulties that had become increasingly apparent during the course of the depression hindered the progress of revival. Despite the easing of the money markets, the supplies of long-term credits for industrial expansion remained meager. Domestic banks and business enterprises and foreign lenders were primarily interested in the continuing liquidation of debts. The presence of a large reserve of domestic consumer purchasing power might have acted as a support and stimulus for industrial activity, once prices were steady. However, the long depression had greatly reduced both the incomes and the savings of individuals and business enterprises. The downward pressure on wages continued into 1933, and such business profits as accrued were applied to a considerable extent to the reduction of liabilities. Also, the grow-

ing resistance of world markets to German goods made improbable a stimulus from export trade. Although construction costs were at a low point, the meager purchasing power in domestic and foreign markets, together with the large surplus productive capacity of many industries, threatened that returns on new investments would be inadequate. There was, then, little incentive to make extensive additions to the existing plant.

Thus, the growing necessity of replacing capital goods and durable consumption goods, the depletion of commodity surpluses, the gradual increase of credit liquidity together with more and more vigorous support of the economy by an aggressive, firmly entrenched government, provided the chief impulses in the direction of revival. But the continuance of economic distress among the masses of urban and agricultural consumers, the declining export surplus, the uncertainties involved in obtaining and applying new capital investments, made the progress of the upswing slow and uncertain.

## 6. SUMMARY <sup>14</sup>

The months immediately subsequent to currency stabilization were characterized, in general, by depression. In the last quarter of 1923, this was espe-

<sup>14</sup> Twenty-four series pertaining to various aspects of German economy are presented in Chart 1. This chart may be helpful in illuminating the course of the economy from 1924 to 1933.

cially evident in large unemployment. The short period of credit expansion and increased business activity—February to April, 1924—which followed is probably to be attributed in large part to Reichsbank policy. However, when the new currency seemed endangered, credit was sharply curtailed. The underlying depressed situation again became apparent in greater unemployment and a heavy toll of bankruptcies. After August there was considerable improvement, accompanying the large borrowing of foreign funds that followed the acceptance of the Dawes Plan. During the autumn and winter of 1924 increasing activity was evident in indexes of industrial production, trade and employment. But the number of insolvencies remained high—a manifestation of structural reorganization in German economy. After the beginning of 1925 the inflow of foreign loans diminished markedly. This may account for the unclear picture of business during the early months of that year. Production and consumption continued to rise for a time, but by the end of spring symptoms of recession were apparent.

The cyclical upswing definitely came to an end in the summer of 1925. The sharp recession in the autumn of that year was characterized particularly by accelerating increases in unemployment, business failures and liquidation. Industrial production and commercial activity reflected their decline in most economic series. The essential difficulties were apparently in business organization rather than in

finance. Indeed, credit was withdrawn from unprofitable concerns, but it did not become suddenly and universally unobtainable. More significant factors involved in the recession were those associated with practices of administration and forms of organization that had developed during the War and the inflation and could not survive under conditions of currency stability. Also, German industry had not yet had the opportunity to adapt itself to more advanced methods of production. Administrative and technical reforms were necessary in order to restore the world competitive strength of the German economy.

The depression that characterized the winter of 1925-26 did not last long, reaching its turning-point early in 1926. Easier domestic credit conditions, improving business organization and industrial technique, together with external stimuli—chiefly the continuing inflow of foreign capital and the severe British coal strike—made for gradual but definite recovery of German business during the late spring and summer. Unemployment was one of the few economic series that failed to show very considerable improvement by the autumn of 1926. However, heavy unemployment and the numerous business failures must be viewed as aspects of structural reorganization.

Recovery broadened into a period of prosperity during 1927 which continued until the spring of 1928. Business activity was widely extended and its

manifestations in production, consumption and employment were fairly uniform. However, substantial capital expenditures were paralleled by a growing stringency of capital supplies. By the end of spring, 1928, it was apparent that the intensive activity was giving way to decline. To be sure, consumption and trade were still at high levels and the labor market was in a relatively satisfactory condition. But money rates were rising, the physical volume of production in certain industries was declining and there were indications of increasing business difficulties. The period of general economic advance—which, with qualifications, may be regarded as a time of prosperity—now gave way to slow recession.

The autumn of 1928 was marked by a downward trend of business as a whole, a relatively stable volume of consumption, a slowing down of capital expenditures and an expansion of exports. The lockout in the Rhenish-Westphalian steel and iron industry in November 1928 accelerated the seasonal rise in unemployment and reduced the activity of other industries. In the early months of 1929 the effects of the lockout were aggravated by weather of unprecedented severity. The decline of industrial production during the winter was counterbalanced by increased activity during the spring and summer of 1929. However, other factors, particularly those connected with credit, continued to exercise a restraining influence. Credit stringency was aggravated by protracted reparation negotiations, by extraordi-



nary demands for capital in other countries, by the unsatisfactory financial showing of many public bodies. Decline deepened into depression during the winter. Throughout 1930 industrial production and commercial activity continued to contract, unemployment rose, and commodity imports and prices fell to low levels. In the autumn, after the growing strength of the extreme political parties had become apparent, there was a heavy outflow of foreign capital, but by the end of the year funds were returning. A series of political and economic disturbances during the spring and summer of 1931 gave the impulse for a renewed outflow of loan funds, which in the middle of the summer took on the aspect of a panic. Unusual measures of Government control were required to prevent financial collapse. The decline in general economic activity, as reflected in numerous indexes of production, trade and prices, was accelerated by the credit panic. The winter of 1931-32 and the following spring found German economy in deep depression. During the summer and autumn of 1932 depression gave way to a hesitant revival. Production, employment and trade rose, prices were strengthened, and the money markets recovered from their paralysis. The growing necessity of filling depleted commodity stocks and restoring outworn capital and consumers' goods, together with the gradual liquidation of the debt burden, seem to have been the main reviving factors. Although their influence extended into 1933, recovery was slow and

uncertain. The economy continued to labor under powerful depressive burdens proceeding chiefly from the narrowness of both domestic and foreign capital and commodity markets.

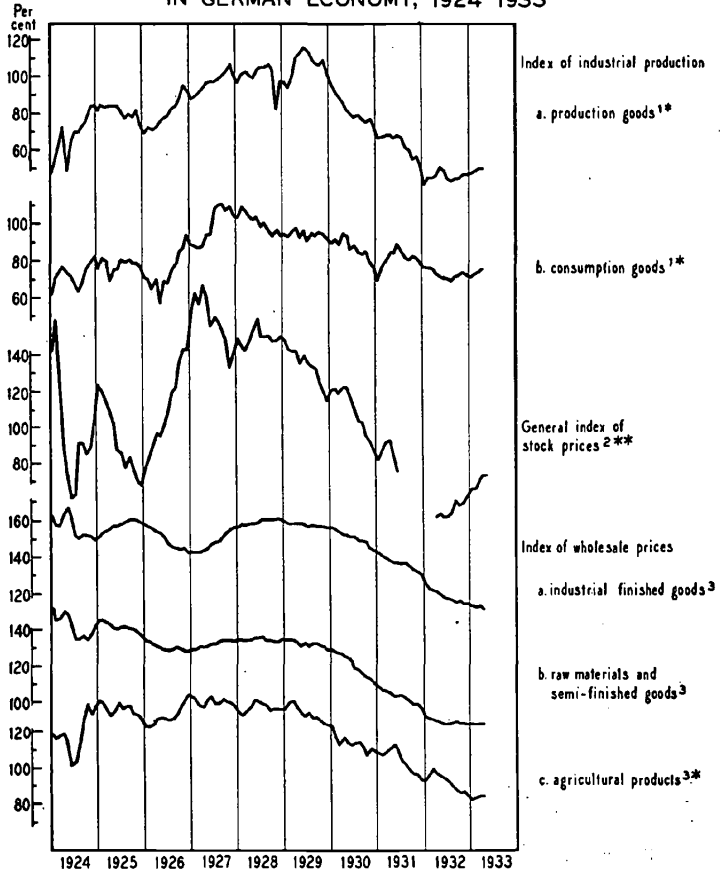
## B. Significant Aspects of German Economy, 1924-1933

The foregoing attempt to describe the totality of the cyclical course of German economy from early 1924 to the spring of 1933 indicates that the fluctuations of an economy are the expression of a complex of changes in a great variety of processes and that each of these processes is itself a complex of variables. Limitations of space and time, however, demand that the study confine itself to what are considered to be essential features of the ebb and flow of the economy.

This section is a summary reconsideration of aspects of German economy that appear to be closely connected with the character of its cyclical fluctuations. They have already been emphasized, but hitherto the discussion has been built around the framework provided by the successive phases of the business cycles—recovery, prosperity, recession, depression. It is believed that a review of some of these aspects—one by one, rather than chronologically—may further illuminate the nature of the cyclical fluctuations in the post-stabilization period.

# CHART 1

## TIME SERIES ILLUSTRATIVE OF CYCLICAL FLUCTUATIONS IN GERMAN ECONOMY, 1924-1933



\* Seasonal fluctuations removed

\*\* July 1931 - March 1932, inclusive, not available

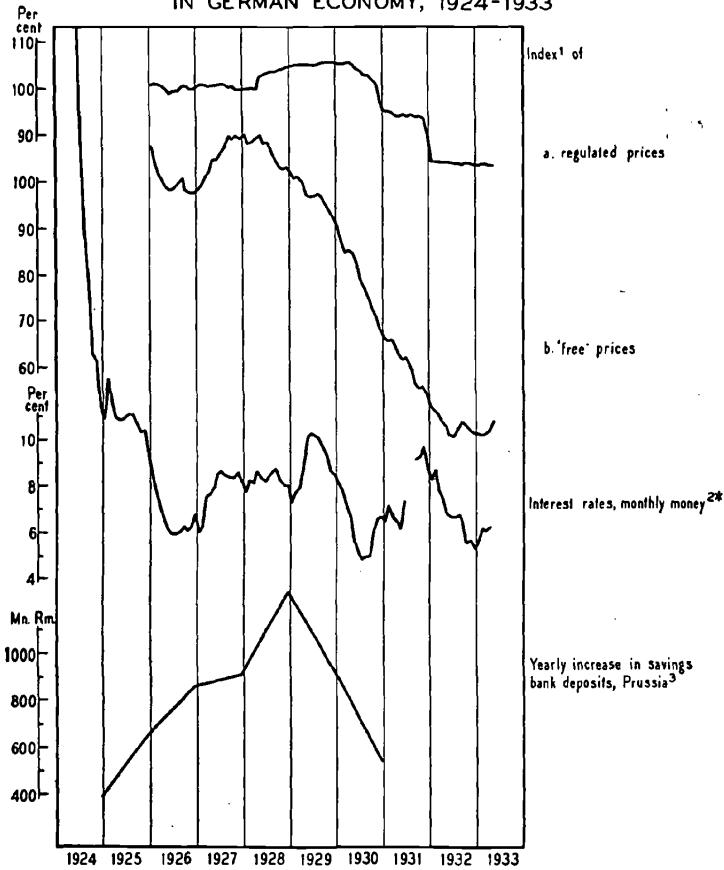
<sup>1</sup> 1928 = 100

<sup>2</sup> 1924-1926 = 100

<sup>3</sup> 1913 = 100

### CHART 1 (CONT.)

#### TIME SERIES ILLUSTRATIVE OF CYCLICAL FLUCTUATIONS IN GERMAN ECONOMY, 1924-1933



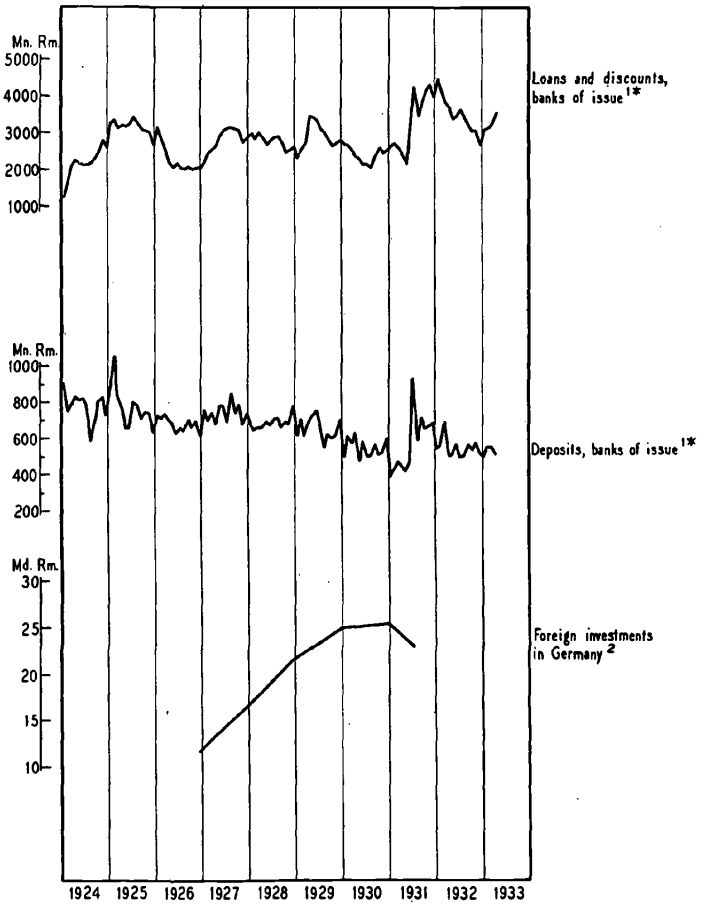
\* Seasonal fluctuations removed

<sup>1</sup> 1926 = 100

<sup>2</sup> Per cent per year (not quoted in July and August, 1931)

<sup>3</sup> Yearly total in millions of Reichsmarks. (Decrease in 1931 of 909.6 million Rm., and in 1932 of 409.2 million Rm.)

**CHART I (CONT.)**  
**TIME SERIES ILLUSTRATIVE OF CYCLICAL FLUCTUATIONS**  
**IN GERMAN ECONOMY, 1924-1933**



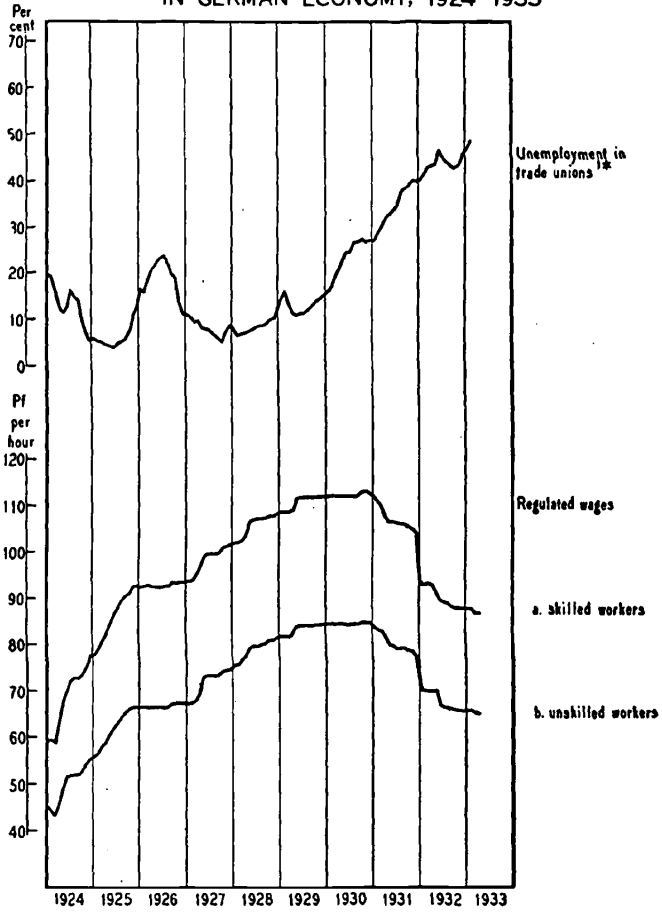
\* Seasonal fluctuations removed

<sup>1</sup> Total at end of month in millions of Reichsmarks

<sup>2</sup> Total at end of year in milliards of Reichsmarks

CHART 1 (CONT.)

TIME SERIES ILLUSTRATIVE OF CYCLICAL FLUCTUATIONS  
IN GERMAN ECONOMY, 1924-1933

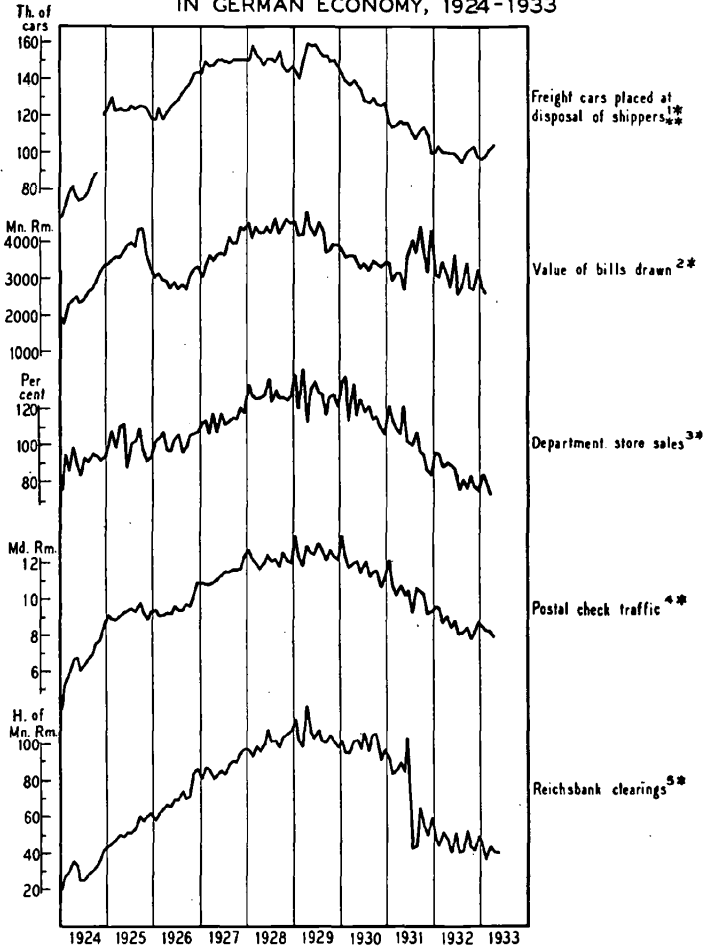


\* Seasonal fluctuations removed  
 † Per cent of membership

# CHART 1 (CONT.)

## TIME SERIES ILLUSTRATIVE OF CYCLICAL FLUCTUATIONS

### IN GERMAN ECONOMY, 1924-1933



\* Seasonal fluctuations removed

\*\* November 1924 data not available

<sup>1</sup> Daily average per month in 1000 cars

<sup>2</sup> Monthly total in millions of Reichsmarks

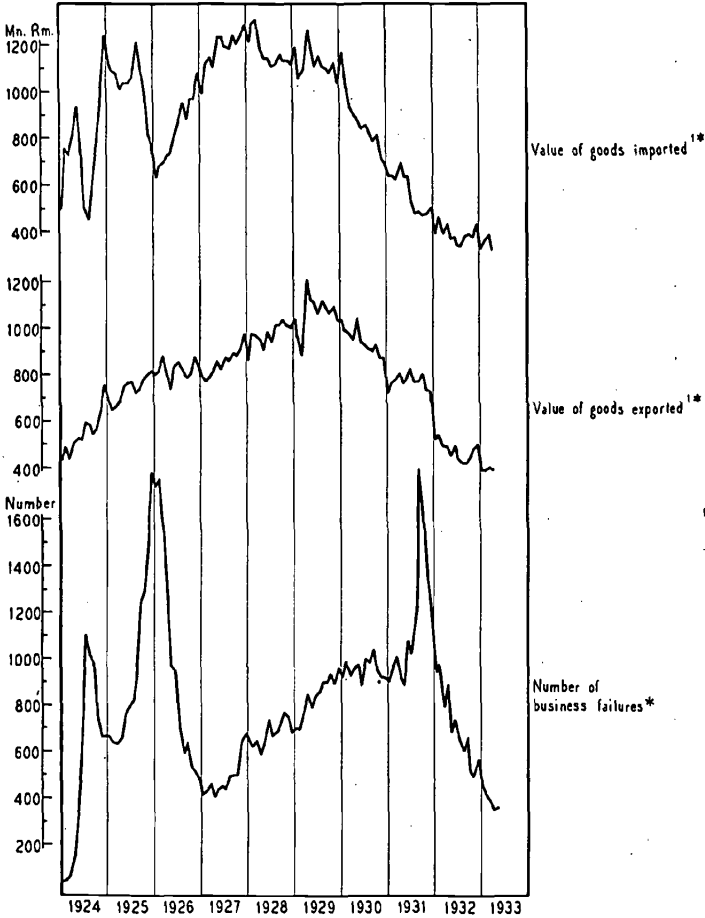
<sup>3</sup> 1925=100

<sup>4</sup> Monthly total in millions of Reichsmarks

<sup>5</sup> Monthly total in hundred millions of Reichsmarks

### CHART I (CONT.)

#### TIME SERIES ILLUSTRATIVE OF CYCLICAL FLUCTUATIONS IN GERMAN ECONOMY, 1924-1933



\*Seasonal fluctuations removed

<sup>1</sup>Monthly total in millions of Reichsmarks



## 1. CAPITAL AND CREDIT

Through the mass of literature pertaining to German economy since the currency stabilization there runs, like a red thread, the term *Kapitalnot*—need for capital. Wherever one's interests lie—in agriculture or in industry, in state finances or in community affairs, in the universities or in the transportation system—one meets with the opinion that German economy is weakened by a lack of capital.

### *a. Capital Losses, 1914–1922*

Explanation of the great capital losses of Germany is to be found in the story of the events that occurred from 1914 to 1923. The intense strain of the World War made heavy demands upon the supply of capital goods, and much that was worn out or destroyed was not renewed or restored. Furthermore, the requisitions of the victorious powers during the period 1918–23 led to additional large capital losses. The difficult years after the War, fraught with economic and political uncertainties, currency inflation and reparation quarrels, were characterized not only by reduction of capital supplies but also by the accumulation of much inefficient or superfluous production equipment.

Estimates in monetary terms of the net reduction in Germany's national income and wealth in the period of War and inflation are subject to wide mar-

gins of error. Moulton and McGuire estimate the losses sustained from 1914 to 1921 as a consequence of reduction in productive capacity, depreciation of plant and equipment, damage caused by the Russian invasion of East Prussia, surrender of foreign investments and other properties in accordance with the peace treaty, and from the decline in stocks of consumption goods, as amounting to 135 billion gold marks.<sup>15</sup> This would make the total loss as high as 45 per cent of the 1913 wealth of Germany.<sup>16</sup> Evidence of German production in the years immediately following the War indicates that this percentage is somewhat too high.<sup>17</sup> Nevertheless, in the absence of more accurate data, it may serve to illustrate the seriousness of Germany's economic losses incurred during and immediately after the War.

National income in the inflation years, 1920-23, was undoubtedly much below the pre-War levels.<sup>18</sup> But no accurate estimate can be made of the loss of

<sup>15</sup> H. G. Moulton and C. E. McGuire, *Germany's Capacity to Pay* (McGraw-Hill, 1923), pp. 190-3.

<sup>16</sup> Karl Helfferich's estimate of Germany's national wealth in 1913 was 300 milliard marks; *Deutschlands Volkswohlstand, 1888-1913* (Stilke, Berlin, 1915), p. 122. <

<sup>17</sup> See J. W. Angell, *The Recovery of Germany*, p. 15; F. D. Graham, *Exchange, Prices, and Production in Hyper-Inflation, Germany, 1920-1923* (Princeton University Press, Princeton, 1931), pp. 277-320.

<sup>18</sup> See Graham, *op. cit.*, for estimates of production in the years of the inflation. There is reason to believe that the national income in 1923, the year of the Ruhr invasion and final currency collapse, was roughly 40 per cent below the 1913 level. In 1924, however, it was probably almost as great as in 1913 (in terms of 1913 purchasing power of the mark)—an indication of the very rapid recovery of German economy after the currency stabilization.

capital in these years. It is of interest here to note certain influences of the inflationary disturbances upon the accumulation of capital. Possibly the evils of the German inflation have been exaggerated, at least in terms of the *national* economy; nevertheless, its consequences were very serious. It is true that there was considerable saving during this period, both on the part of individuals and of corporate enterprises. Indeed, after the stabilization it looked at first as if the German economy were plentifully supplied with capital goods—machines, factory buildings and other production equipment. Closer examination, however, revealed that a considerable part of these goods was highly depreciated and economically ineffective. The rapid and almost continuous inflation of the currency stimulated investment of surplus income in every variety of durable goods, regardless of whether or not it could promise adequate future productiveness. Of paramount importance at the moment was the conversion of dizzily depreciating paper marks into anything tangible. Later, during the period of industrial ‘rationalization’, from 1925 to 1928, it was found necessary to scrap much of such ‘inflation capital’.

Furthermore, the inflation reduced the loans of innumerable creditors to utter worthlessness and thereby sapped the foundations of the confidence essential to a restoration of the old credit system. Also, bitter memories of sudden dissipation of hard-won savings and investments acted as a brake upon

incentives to save; even after the stabilized currency seemed quite secure. These factors undoubtedly contributed to the scarcity of loan-fund capital and the credit restrictions of the months immediately following stabilization. Probably most of the German foreign investments that remained at the end of the War were wiped out during the inflation period. Finally, the spectacular 'flight from the mark' led to a very appreciable export of capital from Germany.<sup>19</sup>

Thus, "at the close of 1923 German business was nearly bankrupt. The inflation and subsequent stabilization had wiped out most of its working capital, and not only were there no funds available for reconstruction, there was often not even enough to carry on daily operations."<sup>20</sup> Germany was in dire need of loan-fund capital. This need was most acute immediately after stabilization, but the effects of the decade of war and inflation were felt throughout the period here considered. They were wounds that could not be healed in the course of seven or eight years.

<sup>19</sup> The so-called McKenna Committee, which was appointed by the Reparation Commission in November 1923 for the purpose of determining the amount of German capital abroad, and the means for bringing it back to Germany, estimated it to be approximately 6.75 milliard marks. This amount, however, does not appear to be identical with the 'flight from the mark'. See *Reports of the Expert Committee appointed by the Reparation Commission* (London, 1924), pp. 126-38. See also Angell, *op. cit.*, pp. 17-60, and Graham, *op. cit.*, *passim*, for consideration of the effects of the inflation upon German economy.

<sup>20</sup> Angell, *op. cit.*, p. 190.

The work of reconstruction was closely dependent upon the processes of capital accumulation. The needs of a growing population, accustomed to relatively high standards of living, and obligations to pay large foreign political debts required greater productivity. But extension and renovation of the economic machinery—entailing vast capital investments—was a precedent condition essential to such increased productivity.<sup>21</sup> The public authorities, in addition to borrowing in order to subsidize the erection of dwellings, sought funds in large amounts to fulfill sweeping programs of construction for other public purposes—stadia, schools and museums, as well as railways, power plants, canals and harbors.

<sup>21</sup> Germany's population increased from 62,846,000 in 1924 to about 65,092,000 in 1930—a growth of approximately 374,000 each year.

The population pressure was especially felt in the lack of adequate housing facilities. As in other countries, a shortage of dwellings was a consequence of the War. But it was especially pronounced in Germany because even before the War housing had been inadequate. The Reich, state and commune governments were much interested in encouraging building construction, and about half the funds used for such purposes from 1924 to 1930 were obtained through the public authorities (see *Reports of the Agent General for Reparation Payments*, December 10, 1927, p. 156; May 21, 1930, p. 283). Furthermore, the working population was increasing more rapidly than the total population. It has been estimated that at the beginning of 1930 the number of potential income producers was 5 per cent greater than in 1925, whereas the total population had grown by only 3 per cent (*Statistisches Jahrbuch für das Deutsche Reich*, 1931, pp. 7, 18). For this reason alone, therefore, it was socially desirable that Germany's capital equipment expand relatively more than its total population.

The reparation burden was a special factor making for productive expansion. With very little left of its pre-War foreign investments, it was necessary for German economy to prepare to meet this obligation ultimately by the exportation of goods and services.

Further demands for loan-fund capital, less social in nature, came from private enterprise, which was interested in improving plant and equipment for the purpose of lowering production costs and expanding profits. Agriculture, by reason of special difficulties confronting it, also became a heavy and consistent borrower. As the activity of trade and industry began to gather momentum, heavy demands were made for the purpose of carrying goods through the processes of production and distribution.

*b. Domestic Accumulation of Capital, 1924-1933*

The internal accumulation of capital made great progress during the years 1924-30, but it was not nearly sufficient to satisfy this combination of demands. The relatively high interest rates, the almost continuously strained condition of the money markets, manifested the size and urgency of Germany's need for capital.

It is difficult to form a clear picture of the extent of domestic capital accumulation during the years after the inflation.<sup>22</sup> Nevertheless, several authorities have essayed estimates. James W. Angell fixes the total of domestic savings in the years 1924-28 at 24

<sup>22</sup> "The question of the magnitude of these savings has been a highly controversial one in Germany. The estimates vary widely, and are often based on entirely dissimilar methods. No figure can be reached which is assuredly correct, and the estimate finally selected must necessarily rest to a considerable extent on individual judgment." (Angell, *op. cit.*, p. 326).

to 25 milliard Reichsmarks.<sup>23</sup> He approximates the annual distribution of total savings, in millions of Reichsmarks, as follows:

1924	1,000
1925	3,500
1926	3,000
1927	8,500-9,000
1928	8,000-8,500
Total	24,000-25,000

The most extensive estimate, in terms of the period embraced, was made by Erich Welter, financial editor of the *Frankfurter Zeitung*:

#### Net Domestic Additions to Capital, 1925-1930<sup>24</sup>

(in millions of Reichsmarks)

1925	6,500
1926	7,500
1927	9,000
1928	9,000
1929	7,500
1930 "probably less than"	6,000
Total	45,000

Welter suggests that national saving declined rap-

<sup>23</sup> This total is the sum of net public security issues, land mortgages, estimated savings of business enterprises, savings deposits, insurance and government savings, etc., less estimated duplications. Allowing for estimated losses in agriculture, the net domestic addition to domestic capital is approximated at 20 to 21 milliard Reichsmarks (*Ibid.*, pp. 326, 327, 408).

<sup>24</sup> See *Frankfurter Zeitung*, May 8, 1931, p. 5; *Wirtschaftskurve . . . der Frankfurter Zeitung*, Vol. 7, Nr. 3, 1928, pp. 301-5; H. R. Knickerbocker in the *New York Evening Post*, January 29, 1932, p. 2. Welter's estimates are based upon various evidences of increase of loan-fund capital.

idly in the first half of 1931, and that after the bank credit crisis of the summer, capital accumulation gave way to net capital consumption.<sup>25</sup> The general tendency portrayed in estimates of national savings

TABLE 2  
EVIDENCE OF THE VOLUME OF SAVINGS, 1924-1931<sup>1</sup>  
(in millions of Reichsmarks)

YEAR	TOTAL SAVINGS	ANNUAL VOLUME		ANNUAL EXCESS OF
	DEPOSITS IN	OF DOMESTIC		INSURANCE PREMIUMS
	SPARKASSEN	CAPITAL	ISSUES	OVER PAYMENTS
	AT END OF YEAR	BONDS	STOCKS	
1924		440	148	
1925	1,629	1,080	656	530
1926	3,091	3,579	988	592
1927	4,665	2,841	1,438	759
1928	6,990	2,905	1,339	871
1929	9,016	1,553	979	874
1930	10,400	2,667	555	973
1931	9,722	1,333	784	
1932	9,917	558	145	

<sup>1</sup> *Statistisches Jahrbuch*, 1928-1932, *passim*; Institut für Konjunkturforschung, *Vierteljahrshefte zur Konjunkturforschung*, 1926-1933, *passim*.

is fairly well confirmed by such evidences of capital formation, published currently, as the annual vol-

<sup>25</sup> Estimates of capital accumulation in 1925, 1926 and 1927 made by the Reichskreditgesellschaft—a bank indirectly owned by the Reich—are 6.4, 6.3 and 7.6 milliard Reichsmarks. These figures are arrived at by deducting capital imports, less such as was used for currency cover, from the estimated surplus of production (Reichskreditgesellschaft, *Germany's Economic Development During the Second Half of the Year 1927*, p. 15).

A study by the German Institut für Konjunkturforschung indicates that the increase in capital goods in German economy, 1924-28, was about 42 milliard Reichsmarks. Subtracting capital imports from this



ume of savings bank deposits, new capital issues and the excess of insurance premiums over payments.

On the basis of such evidence as this it may be said that the accumulation of capital immediately after currency stabilization was much below that in the period immediately preceding the War. After 1924 there was a rapid increase, but beginning in 1929 a decline in the rate of accumulation set in. The years 1931 and 1932 have probably witnessed a net reduction in domestic capital supplies.<sup>26</sup>

Total national savings during the years 1924-30 were surprisingly large, in view of the extraordinary political and economic difficulties of the preceding decade (at a guess, these savings might be put somewhere between 40 and 45 milliard Reichsmarks). Nevertheless they were not nearly sufficient to meet the needs of the economy.<sup>27</sup>

total gives the sum of 28 milliard Reichsmarks as representing domestic additions to capital supplies (Institut für Konjunkturforschung, *Vierteljahrshäfte zur Konjunkturforschung*, Sonderheft 22, Kapitalbildung und Investitionen in der deutschen Volkswirtschaft, 1924 bis 1928, Berlin, 1930).

The widely-quoted estimate of Karl Helfferich is that national savings in 1913 amounted to approximately 8-8.5 milliard gold marks (*loc. cit.*). In terms of mark purchasing power in 1928 this would amount to about 13 milliard.

<sup>26</sup> Reichskreditgesellschaft, *Germany's Economic Situation at the Turn of 1932-33*, p. 40.

<sup>27</sup> There is reason to believe that the proportion of national income saved in the post-inflation period was less than before the War. One of the most significant factors making for a reduction in savings in recent years is the change in the distribution of personal income. Since the War there has been a pronounced decline in the total amount of large individual incomes. For instance, the total of personal incomes over 5,000 marks a year is estimated to have fallen from

Evidence of the inadequacy of capital is afforded by the relatively high interest rates prevailing in Germany throughout this period and by the consequent inflow of foreign funds. Discount rates of private banks in leading financial centers may be considered representative for present purposes.

29.9 per cent of national income in 1913 (in terms of 1928 mark purchasing power) to 23.8 per cent in 1928. This shift is especially marked in the higher income brackets. The sum of incomes over 50,000 marks (1928 purchasing power) amounted to 10.7 per cent of national income in 1913 and only 3.5 per cent in 1928 (see *Statistisches Jahrbuch* . . . . , 1931, p. 533).

The post-War growth in the burden of government—manifested in heavy per capita tax charges—has also tended to decrease the volume of national savings. Angell (*op. cit.*, p. 316) estimates the total 'real' cost of government to be 65 per cent greater in 1928 than in 1913. Reparation payments, moreover, have been an outright drain on savings. Saving tends, of course, to be relatively larger on the part of individuals receiving higher (or 'surplus') incomes than of individuals of smaller means. A reduction in the total amount of 'surplus' incomes should lead, *ceteris paribus*, to a reduction in national savings.

Furthermore, fear of the loss of individual wealth—exaggerated by memories of losses incurred during the inflation period—may have contributed to restrain somewhat the willingness to save even after stabilization was effected (see Erich Welter, *Die Ursachen des Kapitalmangels in Deutschland*, Mohr, Tübingen, 1931, *passim*).

The estimates of national income and savings appear to indicate that although total annual income after 1926 was greater than in 1913, the proportion saved was less than in the last pre-War year. Thus, out of a total income in 1913 of 65–69 milliard marks (1928 Reichsmark purchasing power), something like 12,000 or 13,000 million, or 17 to 20 per cent, was saved (Helfferich, *op. cit.*, p. 122; Statistisches Reichsamt, *Das deutsche Volkseinkommen vor und nach dem Kriege*, Einzelschrift Nr. 24. . . . , Berlin, 1932, p. 69). In 1928, however, out of a total income of approximately 75 milliard, there was a saving of 9 milliard, at most, or about 12 per cent (see *Wirtschaftskurve . . . der Frankfurter Zeitung*, Vol. 7, Nr. 3, 1928, pp. 301–5).

TABLE 3

PRIVATE DISCOUNT RATES ON PRIME BANKERS'  
ACCEPTANCES<sup>1</sup>

(annual averages)

YEAR	BERLIN	LONDON	PARIS	NEW YORK
1913	4.98	4.39	3.84	5.58
1924	9.20 <sup>2</sup>	3.46	5.21	3.11
1925	7.62	4.13	5.77	3.32
1926	4.88	4.46	5.66	3.59
1927	5.47	4.23	2.91	3.45
1928	6.54	4.16	2.98	4.10
1929	6.87	5.26	3.46	5.03
1930	4.43	2.57	2.32	2.46
1931	6.19 <sup>3</sup>	3.60	1.57	1.58
1932	4.95	1.88	1.31	1.31

<sup>1</sup> *Statistisches Jahrbuch*. . . ., 1928, supplement, pp. 168-9; *Federal Reserve Bulletin*, 1928-33, *passim*.

<sup>2</sup> December rate.

<sup>3</sup> Average of eleven months, no rate available for August 1931.

As is apparent in Table 3, the annual averages of representative short-term money rates in Berlin after stabilization were considerably higher than corresponding rates in London and New York, and, with one exception, much higher than those in Paris. The spread between German and foreign long-term money rates was even greater.

*c. Inflow of Foreign Capital, 1924-1930*

Capital imports to Germany took the form not only of long- and short-term loans but also of direct participation in domestic business enterprise, of purchases of stock shares, buildings and land. How-

TABLE 4

ESTIMATE OF FOREIGN INVESTMENTS IN GERMANY<sup>1</sup>

1924-1931

(in milliards of Reichsmarks at end of year)

YEAR	SHORT-TERM INVESTMENT	LONG-TERM INVESTMENT	OTHER INVESTMENTS	TOTAL INVESTMENTS
1924	Unknown	1.0	Unknown	Unknown
1925	Unknown	2.5	Unknown	Unknown
1926	4.1	4.1	3.5	11.7
1927	6.6	5.4	4.5	16.5
1928	9.0	7.0	5.5	21.5
1929	11.7	7.3	6.0	25.0
1930	10.3	9.2	6.0	25.5
July 1931	8.0	9.0	6.0	23.0

<sup>1</sup> Report of Committee Appointed on the Recommendation of the London Conference, 1931, Annex III, in the *Economist*, August 22, 1931, Supplement.

The distribution of the foreign investment of 23 milliard Reichsmarks in Germany in July 1931 was indicated to be as follows:\*

## SHORT-TERM

Public authorities	0.8	
Banks on current accounts, acceptance credits and other liabilities	5.1	
Other short-term	1.5	
Reichsbank and Golddiskontbank credits	0.6	8.0

## LONG-TERM

Foreign issues	8.5	
Mortgage credits, etc.	0.1	
German internal issues	0.4	9.0

## OTHER

Shares and other holdings	4.0	
Real estate	2.0	6.0

23.0

\* *Ibid.*, Annex IV. Investigations by the German government, made subsequent to the report of the Wiggin Committee, show that the total commercial foreign debt, and especially the amount borrowed

at short-term, was larger in July 1931 than is indicated in the above estimate. The short-term loans were fixed at 13.1 milliard Reichsmarks and the long-term investments at 10.7 milliard. Other investments were held to amount to 5.9 milliard. This would bring the total foreign capital in Germany in July 1931 to about 29.7 milliard Reichsmarks and probably to about 32 milliard in December 1930. In February 1932 the short-term debt was estimated to amount to 8.7 milliard, and the long-term debt, to 10.3 milliard (see *Frankfurter Zeitung*, November 1, 1931, p. 5; *Wirtschaft und Statistik*, Vol. 13, Nr. 16, pp. 486-8).

ever, there is reason to believe that loans have made up the bulk of the capital inflow.<sup>28</sup>

The committee appointed on the recommendation of the London conference of July 20-23, 1931 (generally known as the Wiggin Committee) estimated the investment of foreign capital in Germany to be as shown in Table 4. The foreign loans are estimated by the German Registry Office for Foreign Indebtedness to have been reduced between July 1931 and October 1932 by 4.3 milliard Reichsmarks, representing a reduction of 3.8 milliard in short-term credits and of 0.5 milliard in long-term credits.<sup>29</sup>

Thus the inflow of foreign funds was very rapid until 1929, but afterward, just as in the case of domestic capital accumulation, the rate of increase declined. In 1931 and 1932 increase of foreign investments gave way to net decrease.

The differential between German and foreign

<sup>28</sup> See Angell, *op. cit.*, p. 192.

<sup>29</sup> Statistisches Reichsamt, *Wirtschaft und Statistik*, Vol. 13, Nr. 9, pp. 273-6.

interest rates was so continuously large that it sufficed to ensure a fairly steady volume of long-term loans from abroad (even during the recession of 1925-26) until about the end of 1928. The remarkably rapid upward trend of German economy in the period 1924-28 paralleled the uninterrupted and equally rapid increase in the capital supply made available by domestic saving and long-term borrowing from abroad. The decline in 1929 of loans of long maturity is attributable in part to Reichsbank policy of reducing foreign borrowing, but more to strained conditions in foreign speculative markets. In 1930, however, loans of this type were again extended in large amount to German economy.

The inflow of short-term credits manifests a much closer relationship with fluctuations of German economy. In 1925, reflecting high industrial production and heavy raw materials imports, and the consequent need for credits, the inflow of short-term funds was maintained at the high level of approximately 200 million Reichsmarks per month.<sup>30</sup> However, towards the end of the year, with the beginning of recession, production sank and money rates declined. The inflow of short-term credits also fell off, and for a time during the first half of 1926 there was even an outflow. With the beginning of recovery was initiated another period of heavy inflow of

<sup>30</sup> According to an estimate in *Vierteljahrshefte zur Konjunkturforschung*, 1929 (Institut für Konjunkturforschung), I, p. 41.

short-term funds from abroad, which continued almost without interruption throughout 1927 and 1928. During the first half of 1929 there was a rapid withdrawal of foreign short credits; afterward funds again flowed into Germany. In 1930 and 1931, years of sharp decline in business activity, a succession of disturbances—to a large extent political—shook the confidence of creditors. Heavy withdrawals of foreign money began in the autumn of 1930; after subsiding for a time, they were renewed in 1931, and finally in the summer took on the character of a run on the German financial structure.<sup>31</sup> Financial collapse was averted only by unusual measures of debt moratorium and governmental control of economic activities. The efflux continued, though at a slower rate, during the remainder of 1931 and during 1932.

Germany was able in the post-inflation years to begin rebuilding its own investments in foreign countries. The Wiggin Committee estimated that German investments abroad from the beginning of 1926 to the end of 1930 amounted to approximately 9.7 milliard Reichsmarks.<sup>32</sup>

<sup>31</sup> The short-term credits are estimated to have declined one milliard Reichsmarks between the end of July 1931 and the beginning of November 1931 (*Frankfurter Zeitung*, November 1, 1931, p. 5).

<sup>32</sup> *Report of Committee Appointed on the Recommendation of the London Conference, 1931*, Annex III, in the *Economist*, August 22, 1931, Supplement.

The application of new capital supplies in the years 1924-28 (from domestic as well as foreign sources) is shown by the Institut für Konjunkturforschung to have been as follows:\*

	PLANT AND EQUIPMENT		COMMODITY STOCKS	
	AMOUNT IN MILLIONS OF REICHSMARKS	PERCENTAGE OF TOTAL	AMOUNT IN MILLIONS OF REICHSMARKS	PERCENTAGE OF TOTAL
Industry	3548	13.3	5408	43.3
Electric power, gas and water plants	2596	9.7	60	0.5
Transportation	4379	16.3	-98	-0.8
Agriculture	2402	8.9	239	1.9
Handicraft	705	2.6	566	4.5
Retail trade	628	2.3	4437	35.5
Wholesale trade	335	1.3	1880	15.1
Residential construction	5438	20.3	...	...
Public administration	5677	21.1	...	...
Public welfare and social insurance	341	1.3	...	...
Other economic groups	781	2.9	...	...
<i>Total</i>	26830	100.0	12492	100.0

Total investment in plant and equipment 26830 million Reichsmarks  
 Total investment in commodity stocks ... 12492 " "  
 Increase in the gold stocks of the banks of issue ..... 2274 " "

\* *Statistisches Jahrbuch*, 1931, p. 536. (This table is taken from Institut für Konjunkturforschung, *Vierteljahrshefte zur Konjunkturforschung*, Sonderheft 22, Kapitalbildung und Investitionen in der deutschen Volkswirtschaft, 1924 bis 1928, Berlin, 1930).

Thus, of the capital supplies made available to German economy in 1924-28 something like 26 per cent went to industry; 19 per cent was taken by commercial enterprises; 34 per cent went to the governments and public utilities; 7 per cent was used for agricultural purposes; and 14 per cent was invested in dwellings. About two-thirds of the total was applied to extension of plant and equipment.

The above table gives some clue to the amount of capital placed in enterprises not subject to the profits criteria of private economy. Most of the items listed under public administration, public welfare and social insurance, and residential construction, and possibly also



#### d. *The Reichsbank, the Money Market and the Credit System*

The urgent demands for capital, not only from industry and agriculture but also from the federal and local governments, the insufficiency of domestic savings and the consequent importation of foreign funds, made for almost continuous tension in the German money markets in the years here under review. At times the peculiar credit situation made responsible banking control well-nigh impossible. This was especially pronounced in the relationship between the inflow of foreign money and the policy of the Reichsbank. The central bank's attempts to control domestic money markets were often frustrated by the behavior of foreign funds. When the

transportation, belong in this category. The governmental policy of liberally subsidizing building construction has done much to diminish the capital supplies available to private industry and commercial enterprises. It is possible that many of these funds have been invested unprofitably, from the viewpoint of private economy. Of course, investments whose pecuniary returns do not cover interest expenses may still be socially desirable.

There has probably also been much uneconomic application of capital in private enterprise, especially in the case of agriculture. Moreover, investment that from the standpoint of the national economy is excessive was apparently widespread in manufacturing industry. Basking in the shelter of tariffs and cartels, numerous industries have been encouraged to expand their productive capacity beyond all possible social needs (Cf. *Nachkriegskapitalismus*, published by the *Frankfurter Zeitung*, Frankfurt a.M., 1931, pp. 35-44; Angell, *op. cit.*, pp. 208-11, 250; Ernst Wagemann, *Zinshöhe und Kapitalverteilung*, in *Kapital und Kapitalismus*, Bernhard Harms, ed., Reimar Hobbing, Berlin, 1930, pp. 356-73; Ausschuss zur Untersuchung der Erzeugungs und Absatzbedingungen der deutschen Wirtschaft, *Die deutsche Eisenerzeugende Industrien*, Mittler & Sohn, Berlin, 1930, *passim*).

Reichsbank lowered its discount rate, the differential between foreign and domestic rates was reduced, foreign money tended to flow out, and credit markets were tightened rather than eased. When, on the other hand, it raised its rate in order to check credit expansion, the rate differential widened, foreign money tended to enter Germany and its policy was again rendered nugatory. On several occasions credit rationing was resorted to in order to effect a restrictive policy. Also, the Reichsbank encouraged the formation of an official advisory council whose purpose it was to check extravagant foreign borrowings of the various municipalities and municipally-owned enterprises. However, it appears that the net effect of these extraordinary measures was to shift demand from foreign to domestic markets, to raise money rates, and finally to make for increased private borrowing from abroad, much of it at short-term. Also, the Reichsbank was frequently embarrassed by the lending operations of governmental bodies. Furthermore, large foreign purchases of German stock shares, especially in 1926 and 1927, seem to have been responsible for pushing up share prices to levels at which stock yields were far below the yields of first-class bonds.<sup>33</sup> This rise in stock prices was undesirable in that it brought speculative erratic funds into German markets and also absorbed exces-

<sup>33</sup> "By the end of 1926 the average dividend return on shares listed on the Berlin Bourse . . . was barely 3 per cent. This compared with an average interest rate on bonds of  $7\frac{1}{4}$  per cent." (*Report of the Agent General for Reparation Payments, June 10, 1927, p. 71.*)

sive amounts of domestic credit. Early in 1927 the Reichsbank forced a contraction in the use of credit on the stock market. Share prices fell rapidly, and, except for a slight revival in the spring of 1928, continued to decline until the exchanges were closed in July 1931.

Large domestic issues of securities throughout the period 1924-30 exerted heavy pressure on the German money markets. By the end of 1930 approximately 21 milliard Reichsmarks of stocks and bonds had been absorbed within Germany. But the amount of potential offerings far exceeded the absorptive capacity of the domestic markets. Whenever there were indications of easier credit conditions, the markets were immediately overwhelmed with loan applications. Large and continuous demands for funds on the part of local governments probably did much to add to the pressure. Some relief was afforded by the sale of securities in foreign countries.

The relatively great volume of short-term loans, supported to a large extent by foreign funds, has probably been one of the greatest potential dangers for the entire economy. The Institut für Konjunkturforschung has estimated that the total volume of outstanding debts at the end of 1930 was approximately 90 milliard Reichsmarks of which about 35 per cent consisted of short-term credits. In 1913 the volume of short-term debts was not more than 15

per cent of the total debt.<sup>34</sup> But not only was the proportionate amount of short credits much greater than before the War. Since the stabilization such credits have also been used to a large degree for purposes that were formerly satisfied by long-term loans. In the years 1924-30 domestic capital supplies were inadequate to meet demands; nevertheless, high interest rates did not reduce the pressure for funds. Such rates attracted foreign lenders, but, because of political and economic uncertainties, many of these lenders were willing to extend credits only on the condition that they be subject to withdrawal at short notice. Thus a situation was created in which large amounts of funds that nominally might be recalled within a few months were used for fixed-capital purposes. It was a situation that could suddenly become acute and could threaten financial stability. "The fact that the (German) banks . . . . allowed themselves to be made the buffers between industrial and agricultural debtors, bent on long investments, and the commercial and banking creditors, wishing for a quick return of their money, has shaken their foundations completely. It made them the chief sufferers, when, owing to political and commercial panic, billions were suddenly withdrawn."<sup>35</sup>

<sup>34</sup> Institut für Konjunkturforschung, *Wochenbericht*, Vol. 4, Nr. 26, September 23, 1931.

<sup>35</sup> M. J. Bonn, Banking and Credit, in *The Present Economic State of Germany* (Notgemeinschaft der deutschen Wissenschaft, Berlin, 1931), p. 36. For an interesting account of the relationships between foreign

The 'panic' was precipitated in the middle of 1931 by the accelerated withdrawals of foreign balances from the German banks, which led to a rapid increase in domestic withdrawals of deposits and culminated in a general assault on the country's banking structure. The banks and stock exchange were closed and vigorous measures of governmental control were invoked. The weeks subsequent to the panic witnessed the gradual resumption of banking operations, extension of the Reichsbank's control over foreign exchange, and inauguration of a moratorium for the larger part of foreign creditors' claims against German industry. During the early autumn most of the domestic funds withdrawn during the crisis flowed back to the banks. But the foreign credits withdrawn during 1931—estimated to amount to 3 milliard Reichsmarks—did not return. The lending capacity of the German banks was much reduced not only in consequence of loss of resources during the credit crisis, but also because the danger of renewed domestic withdrawals required greater insistence than formerly that loans be liquid.

During the months after the crisis, the German money markets—severed from foreign markets by

capital and the German money markets, see Angell, *op. cit.*, pp. 195-205. See also *Reports of the Agent General for Reparation Payments, 1925-1930, passim*; Wilhelm Prion, *Der deutsche Geld- und Kapitalmarkt seit der Stabilisierung*, in *Strukturwandlungen der deutschen Volkswirtschaft*, II, pp. 327-49 (Bernhard Harms, ed., Reimar Hobbing, Berlin, 1928).

'standstill' agreements and by exchange control, and no longer subject to influence by surplus government funds—became closely dependent upon the Reichsbank. The enormous losses of foreign and domestic funds, and difficulties attending the liquidation of 'frozen' loans led to rigidity and tightness in the financial markets. The Reichsbank sought to counteract this by reducing its discount rate and by directly stimulating a general lowering of interest rates. Furthermore, the central bank undertook to thaw out German credits that were frozen in other countries, sponsored agreements to facilitate the transfer of payments arising in foreign trade, tightened its control of exchange, and encouraged the conversion of foreign short-term loans into long-term loans. During 1932, largely as a result of these measures, the tension of the money markets relaxed and the confidence of debtors and creditors was gradually restored.

## 2. INDUSTRIAL PRODUCTION

During most of the inflation period German industry—stimulated by brisk demand and protected from effective foreign competition—was active. Many new enterprises were founded, established firms expanded their plants and there was a wide extension of cartels, trusts and combines. But there was little incentive to make technical and administrative improvements. Labor was cheap, competi-

tion from abroad was not greatly feared and profits had to be invested quickly in tangibles so as to prevent their dissipation.

After stabilization, however, the stimuli originating with the currency depreciation disappeared and German industry was once more exposed to world competition. Many enterprises that had prospered during inflation found adjustment to the changed situation difficult. Administrative and financial, as well as technical, reorganization was necessary. The urgent need for 'rationalization' became an outstanding topic of the day.<sup>36</sup> Private business was assisted in the reorganization of its productive processes by agencies, subsidized by the Reich, which sought to extend rationalization into almost every branch of economic life.

This more or less radical reorganization of German industry was especially pronounced from 1925 to 1927. The process of correction and improvement eliminated unprofitable business units that had been founded during the inflation. Many aggregated concerns were disintegrated or were reorganized from 'vertical' trusts into 'horizontal' combinations in order to control the output of identical products

<sup>36</sup> The Reichskuratorium für Wirtschaftlichkeit, the German central rationalization bureau, defines rationalization as "the adoption and employment of all the means of increasing efficiency which are furnished by technical science and systematic organization. Its aim is to raise the general level of prosperity by cheaper, more plentiful and better quality goods." Quoted by Robert A. Brady in *The Meaning of Rationalization: An Analysis of the Literature*, *Quarterly Journal of Economics*, May 1932, p. 527.

through the concentration of manufacture in efficient enterprises. Inability to carry the cost of reorganization, as well as technical and administrative difficulties, led to many business failures. German industry did not have capital sufficient to finance rationalization alone. Foreign funds had to be secured. The larger and better-known industrial organizations were able to secure the necessary capital from abroad directly, but most firms were forced to seek foreign capital by way of the German money markets; this tended to make these funds more expensive.

In spite of many difficulties, reorganization and readjustment were carried on with characteristic thoroughness. The speed with which this was effected was made possible mainly by the large and rapid investment of foreign capital in Germany after the stabilization. By 1928 the productive capacity of the leading manufacturing industries was probably from 30 to 40 per cent greater than in 1913. But the foreign trade possibilities had not expanded enough, nor was the home market sufficiently expansive to support so large a productive capacity. The actual physical volume of industrial output of the leading manufacturing industries was probably "less than 15 per cent above the 1913 volume."<sup>87</sup> After the period of swift recovery and expansion had ended, the lack of markets for the rationalized German industrial system became star-

<sup>87</sup> Angell, *op. cit.*, p. 183.



tingly clear. There was not only the burden of excess plant capacity, in the face of heavy capital charges, but also a pressure from labor for higher wages. Rationalization led to the elimination of thousands of workers, and heavy unemployment made for growing social charges. Industries participating largely in export trade were able to sustain their output better than those manufacturing goods chiefly for sale in domestic markets. "It is possible that the development in Germany from the reorganization of the currency in 1924 up to the end of 1927, which was characterized by rising wages and retail prices and by a rapid rationalization and increase of productive capacity in manufacturing industries, also produced a lack of balance which called for subsequent adjustment, although the liquidation period was somewhat delayed by the good business conditions abroad in 1928 and in the first half of 1929." <sup>38</sup>

### 3. AGRICULTURAL PRODUCTION

In the post-inflation period German agriculture has faced many difficulties. Problems of production technique and finance have been made the harder because of the lack of fertile soils and the inertia of habits and customs among the peasants. Within the new boundaries created by the Treaty of Ver-

<sup>38</sup> League of Nations, *The Course and Phases of the World Economic Depression* (Geneva, 1931), pp. 232-3.

sailles more land has been cultivated, yet in the leading crops the yield per acre has generally been less in the post-inflation period than in the years immediately preceding the War.<sup>39</sup> That is, Germany's agricultural productivity has declined. This reflects not only the cultivation of inferior land, but also the inability of agriculture to effect soil and equipment renovations and improvements.

Inflation deprived the German farmers of much of their savings and stimulated investment in unproductive tangible goods. Stabilization exposed them to the influences of world markets, and, despite protective tariffs, the prices of German agricultural products have tended to decline with world prices. The competition of the dairy and vegetable products from Denmark and The Netherlands, which had progressed greatly in their technique of production and marketing during the War and post-War years, was especially difficult to meet. The farmers were forced to borrow in an economy that was almost bare of loan capital. Interest rates were excessive and many loans were contracted to supply necessary working capital and funds to pay off old debts and taxes.<sup>40</sup> Although there had been a "para-

<sup>39</sup> See Ch. I, Part A.

<sup>40</sup> "Until the credit collapse of July 1931 mortgage loans were given up to 40 per cent of the value of the farm and cost from 9½ to 10 per cent. The short-term personal credits of the farmer were still more expensive." Max Sering, in *The Present Economic State of Germany* (study completed under the auspices of the Notgemeinschaft der Deutschen Wissenschaft, privately printed in Germany, 1931).

lyzing accumulation of debt", much of it was incurred merely in order to keep the existing system in operation and did not add to the effectiveness of the latter. Furthermore, during the relatively prosperous post-inflation years, several crops were inferior, and the larger crops from 1928 to 1932 were harvested at a time of falling agricultural prices. In this period, also, the prices of non-agricultural commodities were considerably more above their 1913 level than the prices of agricultural products, that is, the farmers have had to pay relatively high prices for industrial products. Thus the German farmers have been unable to save much. Indeed, in order to keep from sinking more deeply into debt, they have been obliged to lower their standards of living.<sup>41</sup>

<sup>41</sup> The following table gives evidence of the price disparity under which German agriculture is suffering:

	PERCENTAGE CHANGE FROM AVERAGE OF 1925-29 TO FEBRUARY 1933
<i>Prices of goods sold by farmers</i>	
Prices of agricultural products	-45
<i>Prices of goods bought by farmers</i>	
Prices of agricultural equipment (machines, fertilizer, fuel, etc.)	-20
Prices of household furnishings	-35
Prices of clothing	-30
Interest rates	-22
'Tariff' wages	± 0
Social insurance	+ 7

Despite the offsetting factors of reduced production costs and increased agricultural output, the purchasing power of the agricultural population was much reduced during the period 1928-32 (see Institut für Konjunkturforschung, *Vierteljahrshefte zur Konjunkturforschung*, Vol. 7, Nr. 4, pp. 197-203).

Credit difficulties have steadily increased with the deepening depression in recent years. While they did not materially interfere with the harvesting of crops in 1931 and 1932, they adversely influenced the marketing of agricultural produce. High interest rates and uncertainty concerning agricultural prices curtailed purchasing by cooperatives, middlemen and fabricators of foodstuffs, who were inclined to leave the storage of crops to the producers and to depend upon 'hand-to-mouth' buying. This added anew to the burdens carried by agriculture and contributed to further price declines.

The efforts to extend 'rationalization' into agriculture met with obstacles. The mechanization of production made some progress, but it is difficult to apply to German cultivation, much of which is small-scale, mixed and devoted to root crops. "The commercial side is also bad. In the main the prevailing methods of selling the crops and getting them to market are costly and inefficient, and the bookkeeping practices are antiquated."<sup>42</sup> The conservatism of the small farmers, who constitute the majority of the agricultural population, has also obstructed greater reorganization. Although agricultural technique and marketing methods have improved within recent years, much opportunity for further cost reduction still remains.

The Government has made extensive attempts to relieve agriculture. It has imposed tariffs for the

<sup>42</sup> Angell, *op. cit.*, pp. 251-2.

benefit of German producers, has made large amounts of credits available to farmers and has exerted pressure to reduce interest rates on agricultural loans. However, this relief has been effected at a high cost to the economy as a whole.

Angell, writing in 1928, summarized the consequences of the agricultural difficulties as follows: "The failure to increase agricultural production means that food prices are relatively high, while at the same time Germany must continue to buy an important part of her foodstuffs in other countries. . . . Nearly all of these commodities come in over heavy protective duties . . . and in most cases the resulting increase in import prices is also reflected in domestic prices. Agriculture is thereby helped somewhat, but at a heavy cost to industry and commerce. The high price of foods in turn raises the cost of living of the working classes, and this entails higher money wages. Industrial costs of production are forced up to correspond, and the exporting power of the industries themselves is thus restricted, which is particularly undesirable in the present general situation of the country. Removal of the agricultural tariff would help the domestic price situation, but the current depression in agriculture itself would then be seriously aggravated. At the same time imports from abroad would be increased, and a further burden would then be placed on the already strained international financial position."<sup>43</sup>

<sup>43</sup> *Ibid.*, pp. 252-3.

The very length and depth of the recession and depression in German industry during the years 1928-32 greatly increased the agricultural difficulties. In periods of less severe industrial depression the consumption of domestic farm products by the non-agricultural population was not seriously restricted. Purchases of industrial products and of imported foodstuffs tended to be reduced before those of domestic foodstuffs. This, for instance, was true of the depression in 1926. But after 1928, with the continual decline in German purchasing power, the imports of agricultural products steadily decreased. This meant that fluctuations in the demand for foodstuffs must be more and more fully reflected in German agriculture. The sharp decline of consumption during 1931 and 1932 therefore led to especially drastic reductions in the prices of agricultural products. The consequent reduction of farmers' purchasing power was, in turn, an important factor in industrial depression. Thus, difficulties peculiar to industry and to agriculture in their interaction were heavily depressive influences on the economy.

#### 4. THE PRICE SYSTEM

There is evidence that the system of prices in Germany during the post-inflation period—especially as reflected in commodity prices, wages and stock prices—has been characterized by much the same cyclical pattern as have other aspects of the

economy. This pattern has been evident not only in prices subject to the influence of competing market factors but also in those subject to regulation by public and private organizations—namely, in the prices of certain industrial commodities and in wages.

Regulation of prices, particularly by industrial associations, is far-flung and includes such important commodities as coal, iron and steel products, phosphates, chemicals, paper, glass, cement, porcelain and electrical equipment. The extent to which price fluctuations are checked by the process of price fixing is difficult to judge. It has been estimated that in recent years regulation has applied to at least fifty per cent of the commodity price system and to ninety per cent of the wage system.<sup>44</sup> This rigidity is lessened by the widespread practice of granting rebates. Relatively high sensitivity to changes in general business conditions and absence of monopolistic fixation are manifest in the prices of agricultural commodities, textiles, hides and imported goods.

The movements of the general index of wholesale prices<sup>45</sup> from the beginning of 1924 to the end

<sup>44</sup> Ernst Wagemann, *Einführung in die Konjunkturlehre* (Quelle & Meyer, Leipzig, 1929), p. 63.

<sup>45</sup> The general index (prepared by the Statistisches Reichsammt) is a weighted arithmetic mean of relative prices on the base, 1913 = 100. It includes about 800 price quotations relating to some 400 agricultural commodities, industrial raw materials and finished products (see Chart 1).

of 1929 were within rather narrow limits. During most of this period its fluctuations were between 132 and 144 per cent of the 1913 average. This was largely a manifestation of the relative stability of raw materials and of semi-finished goods, which are subject to considerable regulation. However, the indexes for the prices of agricultural products and finished goods show relatively wide fluctuations.<sup>46</sup> Despite these differences in amplitude, there is similarity in the cyclical movement of the commodity price groups during the period 1924-29. After the beginning of 1930 all price indexes show accelerating decline of wide amplitude.<sup>47</sup>

In general, commodity prices sank during the period of depression and uncertainty of the first half of 1924, but rose towards the end of that year and during most of 1925. A downward movement set in again late in 1925 and early in 1926 but soon gave way to another rise, beginning, in the case of agricultural products, in the spring of 1926, and in the case of raw materials and manufactured goods, in the spring of 1927. The advance was continued, or a relatively stable level was maintained, until late in 1928 and early in 1929, when a long downward sweep began. The decline was especially steep in the latter half of 1931; the general index fell approxi-

<sup>46</sup> Compared with the price relationship of 1913, agricultural prices since the stabilization have been continuously at a disparity with the prices of non-agricultural commodities. This has made for a shift in the distribution of national income, to the disadvantage of agriculture.

<sup>47</sup> See Chart 1.



mately 40 per cent from March 1929 to January 1932, nearly 12 per cent of this fall occurring during the last six months of 1931. Commodity prices continued to fall during 1932, although more gradually, and attained a fairly stable level early in 1933. Marked severity of decline is apparent in the prices of agricultural products and raw materials; during the later period of depression, however, 'regulated' prices also dropped sharply.

The fluctuations of 'tariff' wages<sup>48</sup>—the only available quotations indicative of the prices of labor services—display a similar pattern. In 1924 and 1925 regulated wage rates advanced rapidly. After a period of relative stability in 1926 (when the business recession reflected itself in a cessation of advance in wages rather than in absolute decline), another rise began, which continued until about the end of 1929. For about a year thereafter wages changed little, but in 1931 a sharp drop occurred, followed by a continuous gradual decline in 1932.

Comparison of the cyclical amplitudes of individual prices and price groups subject to regulation with those of 'free' prices and price groups shows that the movements of the former were quite stable during the years 1924-30 whereas the latter fluctuated violently. In fact, there is evidence that the

<sup>48</sup> "Wage rates in Germany are governed in large part by a complex network of legally binding agreements, usually territorial within each industry, which are made between the unions on the one side and the employers, or more commonly the employers' associations, on the other." Angell, *The Recovery of Germany*, p. 273.

cyclical swings of unregulated prices were more pronounced than before the War.<sup>49</sup> It would seem quite possible, as has been suggested, that regulation of particular commodity prices and of wages may have led to an aggravation of the cyclical movements in non-regulated prices and in physical quantities, such as employment.<sup>50</sup> However, such influence as price regulation may have exerted until 1930 was largely diminished in later years, particularly after the middle of 1931, when the overwhelming force of world depression made itself felt in abrupt declines in all commodity prices and in wages.

## 5. EMPLOYMENT

Mature capitalistic countries have long suffered from cyclical fluctuations in employment. The increase in unemployment is one of the most serious consequences of business depression in general, and stress is often laid upon the need for 'stabilization' as a means of allaying this disturbance of economic life.

In Germany since 1924, however, the black shadow of a vast army of jobless people has darkened not only the periods of general depression but also periods that might otherwise be called 'prosperous'. Between 1924 and 1928 German economy no doubt effected a substantial recovery, measured

<sup>49</sup> See Ch. III, Sec. 3, d.

<sup>50</sup> See Ernst Wagemann, *Einführung in die Konjunkturlehre*, pp. 63-6.

in terms of production and trade, from the difficulties accompanying inflation. But a national economy that year after year was incapable of assuring all that full employment means to each of its willing workers should not have been sweepingly characterized as 'rehabilitated'.

During most of the inflation period unemployment was relatively slight. Only during 1923 did it assume really severe proportions. By the beginning of the post-stabilization period—that is, the winter of 1923-24—about one-fourth of all trade union members were without work. In the succeeding years, 1924-32, unemployment figures almost always indicate highly unfavorable conditions in the labor market.<sup>51</sup> This was especially pronounced during the winter months—labor was very sensitive to seasonal influences. During the one hundred and nine months from April 1924 to April 1933 the total reported number of unemployed workers fell below 500,000 in only four months, fluctuating between 500,000 and 1,000,000 in twenty months, between 1,000,000 and 3,000,000 during forty-nine months, and rising to between 3,000,000 and 6,200,000 during another thirty-six months.<sup>52</sup>

<sup>51</sup> See Chart 1.

<sup>52</sup> These figures represent only the extent of unemployment as announced by the labor exchanges. During the recession and depression of 1928-32, however, the incentive for jobless workers to report to the exchanges was much reduced. This was a consequence of the growing restrictions on unemployment benefits and of the declining probability of securing employment through the governmental agencies. There was, then, a steady increase in the number of unemployed not

The labor market was, indeed, sensitive to cyclical fluctuations. The periods of industrial revival and high business activity—that is, 1924–25 and 1927–28—were characterized by steady increases in employment. Likewise in recession and depression periods, particularly in that of 1928–32, employment fell to very low levels. The amplitudes of these cyclical fluctuations were very wide.

But, as indicated above, a wide underlying stratum of unemployment was chronic throughout the years 1924–33, even during the periods of relative prosperity. The trend of industrial production was definitely upward from 1924 to 1928, but the trend of unemployment did not decline. Rather, it appears to have risen too. This may be attributed partly to the production of more goods with fewer workers than formerly.

The steps taken by German industry soon after the currency stabilization for the purpose of reducing costs of operation included a considerable reduction of working staffs. According to estimates made by the Statistisches Reichsamt, at least two million workers were set free by this 'rationalization' movement alone between 1925 and 1930.<sup>59</sup> Improvement in industrial technique and organization has often led to a rise in unemployment, but

included in the official statistics. The *Institut für Konjunkturforschung* estimated that such 'invisible' unemployment comprised approximately 1,500,000 persons in the middle of 1932.

<sup>59</sup> Quoted in *Wirtschaftslage, Kapitalbildung, Finanzen* (Allgemeiner Deutscher Gewerkschaftsbund, Berlin, 1930), p. 10.

the rationalization effected so thoroughly and quickly after stabilization overloaded the labor market to an extraordinary degree.

However, factors other than the rationalization of industry also made for chronic unemployment in the post-inflation period. Large numbers of young men and women, born before the War at a time of an especially high birth-rate, came to maturity during the years 1924-31 and so were added to those seeking work. Furthermore, the War and the inflation led to increases in the industrial working population from such unusual causes as immigration from the ceded German territories, the reduction of the army and navy, the impoverishment of many persons who had formerly lived on pensions and interest incomes. Calculations of the Institut für Konjunkturforschung indicate that the number of persons eligible for gainful employment during the years 1926-30, in thousands, was as follows: <sup>64</sup>

BEGINNING OF YEAR	TOTAL OVER 18 YEARS OF AGE	CHANGE DURING YEAR
1926	28,301	+503
1927	28,804	+466
1928	29,270	+437
1929	29,707	+360
1930	30,067	+404

Thus, from the end of 1925 to the beginning of 1930 the working population increased nearly two million. If the estimate that the process of rational-

<sup>64</sup> Quoted in the *Report of the Agent General for Reparation Payments*, May 21, 1930, p. 297.

ization added two million to the total of unemployed is accepted, it is apparent that it was desirable during this period to provide employment for roughly four million workers. A comparison of the unemployment figures for 1925 and 1929 would indicate that most of these workers did find employment. That is, the growing productivity of Germany actually prevented unemployment from rising to even higher levels.

Furthermore, it is believed that the years 1933-36 will be characterized by an absolute reduction in the number of those seeking employment. The Institut für Konjunkturforschung has estimated that during those four years the year-to-year increase in working population will give way to decrease—a reflection of the low birth-rate during the World War. This should for a time tend to reduce unemployment. However, the ability of the economy to absorb the nation's labor power will determine the actual level of unemployment.

ESTIMATE OF FUTURE WORKING POPULATION <sup>1</sup> (in thousands)

BEGINNING OF YEAR	TOTAL OVER 18 YEARS OF AGE	CHANGE DURING YEAR
1930	30,067	+404
1931	30,471	+358
1932	30,829	+406
1933	31,235	-20
1934	31,215	-147
1935	31,068	-200
1936	30,868	-169
1937	30,699	+73
1938	30,772	+341

<sup>1</sup> *Ibid.*, p. 297.

Thus, the acute problem of unemployment in Germany during the years 1924-33 was more than a reflection of sharp cyclical fluctuations. The cyclical movements of unemployment were superimposed upon a deep stratum of unemployment that was present throughout this period. The basically high level of unemployment seems to have been largely the result of structural changes, particularly in population and in industrial technique and organization. However, it is likely that these 'structural factors' will become less important in the decade 1930-40.

## 6. FOREIGN TRADE AND THE BALANCE OF INTERNATIONAL PAYMENTS

During the seven years, 1924-30 inclusive, Germany's foreign indebtedness grew to something over 28 milliard Reichsmarks. German investments abroad amounted to 9.7 milliard. The net inflow of capital therefore was approximately 18 milliard Reichsmarks. At the same time, German economy received 4 milliard for services, shipping, etc.; paid interest of 2.5 milliard upon its commercial debts; increased its holdings of gold and foreign exchange by 2.1 milliard; made reparation payments to the extent of 10.3 milliard, and paid for a surplus of imports over exports amounting to 6.3 milliard.

Table 5 may give some idea of the role of capital

TABLE 5  
GERMANY'S BALANCE OF INTERNATIONAL PAYMENTS, 1924-1932<sup>1</sup>  
(in millions of Reichsmarks)

	1924	1925	1926	1927	1928	1929	1930	1931	1932
<i>Income</i>									
Capital inflow	3669	3222	1641	4646	6938	4459	3678	3817	729
Commodity exports	7810	9546	10677	11118	12627	13632	12175	9733	5814
Services (shipping, insurance trade, reparation services, etc.) <sup>2</sup>	274	462	532	645	672	712	538	436	339
Gold exports	476	56	56	574		510	192	1053 <sup>3</sup>	256 <sup>3</sup>
Interest income	325	320	340	335	382	400	400	300	200
Total	12078	14026	13246	17318	20639	19713	16983	15939	7338
<i>Outgo</i>									
Capital outflow	750	87	1034	854	2852	1991	3195	6494	1299
Commodity imports	9286	11990	9884	14078	13912	13676	10617	6955	4777
Reparation payments	281	1057	1191	1584	1999	2501	1699	990	162
Gold imports	1255	566	624	122	931	345	72		
Interest expense	166	326	513	680	945	1200	1400	1500	1100
Total	12078	14026	13246	17318	20639	19713	16983	15939	7338

<sup>1</sup> Years 1924-25, *Statistisches Jahrbuch*, 1931, pp. 534-5; years 1926-32, *Statistisches Jahrbuch*, 1933, pp. 498-9.

<sup>2</sup> Surplus of services.

<sup>3</sup> Export surplus.



imports in Germany's international balance of payments. During the period of large net capital imports, that is, from the beginning of 1924 to the end of 1929, the commodity import balance was on the whole very large. Only in the early part of 1926—a time of depression—and in the last months of 1929 was there an export surplus. From 1930 to 1933 an export balance was persistent.

Before the War, when the international financial position of Germany was strong, its foreign trade was characterized by an import surplus. In the period 1908-13 this amounted to an annual average of about 1,400 million marks. Its surplus income from foreign investments and services enabled it not only to pay for a surplus of imports over exports but also to invest more funds abroad. However, in the post-inflation years of recovery (when the income from foreign investments was practically gone) a large inflow of foreign loans balanced the trade deficit and reparation payments.

The fluctuations in the volume of commodities imported, especially raw materials, reflected quite closely the changes in general internal economic conditions. This relationship between imports and domestic economy is to be explained largely by the dependence of German industry upon foreign sources for essential raw materials.

Fluctuations in exports must be explained on a different basis. The sudden rise in exports during the depression of early 1926 undoubtedly reflected

a certain amount of necessitous selling and proved to be merely a temporary exaggeration of the gradual tendency of exports to increase. That exports showed no tendency to decline at this time is also an indication of the essentially local nature of the German recession and depression of 1925-26. From that time until the autumn of 1927, German economy was passing from depression to great business activity, and a quickened domestic market gave German merchants little incentive to seek out new foreign markets. From the later months of 1927 until the autumn of 1929 exports expanded quite continuously. The diminution of business at home, together with the greater exporting capacity derived from large production, encouraged the development of export trade. Such an expansion was made possible by the increased power of foreign markets to buy—reflection of the economic activity prevailing in many countries. In the years 1930-32, with the advent of world-wide depression, export opportunities became fewer, and German sales abroad declined. Resistance to German goods in world markets became increasingly pronounced during 1932 and early 1933, largely as a result of rising trade barriers and increasing competition from countries with depreciated currencies. However, owing to a combination of circumstances peculiar to the depression, Germany's *surplus* of exports over imports was large during 1930-32. Prices of raw materials in world markets fell relatively more than prices of

finished goods. This price differential was of great advantage to German exporting manufacturers, who doubtless made strenuous efforts to maintain their sales in foreign markets. Furthermore, the severity of the depression in Germany drastically reduced the demand for goods from abroad. The surplus in the three years 1930-32 from commodity exports and services to foreigners, estimated to total nearly 6.7 milliard Reichsmarks, was thus largely a concomitant of depressive circumstances.