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CHAPTER FOUR

CONCLUSIONS

FOR many years the economic activities of capitalistic countries have been subject to fluctuations known as 'business cycles'. Again and again a period of commercial and industrial activity ends in a lapse; then follows a period of dullness; afterwards a revival sets in, and finally commerce and industry are once more active. This recurring alternation of 'good' and 'bad' times is familiarly called the 'business cycle'.

Every business cycle has unique characteristics, yet a pattern of recurrent rise and fall in most economic activities is common to all. The similarities among business cycles "may be ascribed to the interdependence among economic activities in a large society where almost all people derive a major share of their satisfactions from making and spending money incomes. Under such conditions greater activity in any line leads to freer buying, larger employment, more borrowing, heavier investment. These changes enlarge the market for materials, labor, credit and construction work, and so tend to

stimulate activity in other lines. But a generally accelerated rate of activity, when carried beyond an uncertain point, creates difficulties of various sorts. Output in some lines increases more rapidly than demand for the products at profitable prices; incomes disbursed may not keep pace with the volume of consumers' goods sent to market; rising costs may encroach upon margins of profit; as loans increase a stringency may develop in the money markets, raising interest rates, checking new enterprises and forcing a downward revision of capitalized incomes. In short, some lack of balance always develops among the various activities which are expanding at different rates. Then, just as the upward movement progressively stimulated all activities, the downward movement checks activity in one field after another, spreading among all economic processes. A recession occurs. Once started on the downward grade, the processes of contraction exhibit a cumulative tendency similar to that of the preceding process of expansion. But soon or late, this process of readjustment works out a practicable new equilibrium among related lines of activity, produces conditions favorable to expansion in certain parts of the system, and thus starts a new revival of activity."¹

This process of expansion and contraction is apparent in all business cycles. But divergencies among them are inevitable inasmuch as they occur in a society subject to a multiplicity of influences, some

¹ Wesley C. Mitchell, in an unpublished manuscript.

continuous and others non-recurrent. All types of economic change—seasonal variations, secular movements, long cycles, random perturbations, cyclical fluctuations—are interacting. Furthermore, the combination of influences making for a particular cycle is never precisely the same. The cycles of history, then, are complexes of fluctuations that are subject to the varying impact of a host of factors.

Thus, “the momentum of cyclical expansion may be heightened by some favorable random perturbation or the rapid secular expansion of a ‘new’ industry, such as the automobile industry. The opposite is equally true; a cyclical contraction may be accentuated by an unfavorable development, such as a poor crop. . . . Finally, the turning points in business cycles, when activity is hesitating on the brink of a downward turn or bumping along the bottom of a trough, seem often to be determined by some event of a non-business character. Analysis may show that it was the cyclical condition of business which lent the non-business event its peculiar importance; the same event, had it occurred at some other phase of the cycle, might have passed by without affecting the cyclical tides appreciably.”²

These generalizations—only briefly sketched here—are familiar enough. It is believed that the present study offers specific historical illustration for them. In that sense, it is a chapter in the history of business fluctuations.

² *Ibid.*

1. The present analysis indicates that the two cycles in post-inflation German economy conformed to the pattern common to all business cycles, yet displayed peculiarities of intensity and duration. The variety of business annals considered offers evidence that the first cycle was relatively short, and the second was longer and less precipitous. Statistical analysis of a group of eighty-four selected series, representing many aspects of German economic life, supports more precisely the conclusions derived from the annals. A preponderance of the series examined show two cycles whose initial and terminal troughs occur in the winter of 1923-24, in the spring of 1926, and in the late summer and autumn of 1932. Although timing, duration and amplitude of the cyclical fluctuations apparent in the series vary considerably, yet there is sufficient unity of cyclical pattern to justify acceptance of the concept of 'general business cycles'. The cyclical pattern outlined below is especially evident in the fluctuations of series of industrial production, construction, employment, commodity imports, merchandising, the volume of trade, transportation, the so-called 'free' commodity prices, security prices and business difficulties. Rather more erratic in their cyclical behavior are series of agricultural production, currency, credit and capital, 'regulated' commodity prices, and commodity exports.

The first of the post-inflation cycles, 1924-26, was short in comparison with the average pre-War

cyclical experience of Germany. Apparently there is only one other German cycle on record that is shorter, namely, that of 1879-81. High points of the series giving evidence of the cycle, 1924-26, are grouped with relatively small dispersion about March 1925. The expansion phase of this cycle, which was of exceptional amplitude and intensity, was terminated abruptly; the subsequent contraction was short and of less amplitude than the expansion. Numerous series do not actually fall during the period of contraction, but most series at least show retardation in their rates of rise.

The second post-inflation cycle began during the spring of 1926 and apparently ended in the late summer and autumn of 1932. It thus is one of the longest of German cycles on record; there is evidence of but two pre-War cycles (1886-95 and 1895-1902) of longer duration. This recent cyclical movement has made itself felt in the totality of German economy, inasmuch as almost all series examined give evidence of absolute rise and fall during its course. The high points of series showing the cycle appear at widely separated dates. Therefore its crest is difficult to establish definitely. However, a significant variety of economic activities reached their highest levels in the spring of 1928. Compared with pre-War experience, the amplitude of rise and fall of most series in this cycle has also been unusually large. Especially pronounced is the severity and length of its contraction phase.

Two pronounced 'irregularities'—that is, non-seasonal movements of rise and decline superimposed upon a cyclical swing—are apparent in many of the series analyzed. First, there is evidence of an interruption in the general expansion that had begun early in 1924; a sudden, sharp decline and rise appears in most series during the late spring and early summer of that year. As noted in the presentation of the testimony of business annals, a severe credit curtailment by the Reichsbank authorities, intended as a safeguard for the newly stabilized currency, together with the effects of a coal miners' strike in the Ruhr, was apparently a decisive factor making for this irregularity. Furthermore, a marked fall and rise, from the winter of 1928-29 to the summer of 1929, is manifest in a considerable number of series, particularly in those of industrial production, employment, domestic trade and commodity imports. This movement occurred at a time of general cyclical contraction. It appears to reflect a decline in production occasioned by a lockout in the Ruhr-Westphalian iron industry and by an unusually severe winter, and of a compensatory rise during the spring and summer.

Thus, the two post-inflation cycles appear to have been most exceptional in their amplitudes of rise and fall, in the shortness of the first cycle and in the long phase of contraction in the second. Explanation for these unique characteristics affords illustration of the influence exerted on an economy by a

variety of factors, some of which may not be strictly economic in origin.

2. The War, the Treaty of Versailles and the currency inflation imposed important structural changes upon German economy. The waging of the War and the demands of the Treaty, particularly for reparations, led to a heavy reduction in the national income. The country's area was reduced relatively more than its population. This territorial loss increased the dependence of Germany upon imports of foodstuffs and raw materials and upon foreign markets for the exports of its industrial products. It emphasized the industrial, as contrasted to the agricultural, aspect of German economic life. Further important changes occurred during the inflation. The amount of the national income continued to shrink, and its distribution was violently altered. In technique, German industry remained behind the times, and a host of new, inefficient and unstable business enterprises increased the burdens of German economy.

These structural changes contributed to the peculiar pattern that business fluctuations traced in the years after stabilization. They narrowed the self-sufficiency of German economy and made it extremely dependent upon foreign sources of capital. They were reflected in chronic shortage of credit and in recurrent difficulties related to business organization and industrial technique, to commercial failures and to unemployment.

The two business cycles in the post-inflation years, 1924-32, were a complex of fluctuations in many economic activities. Examination of the behavior of important elements in the economy reveals distinctive features that were contributory to the unique pattern of these cycles.

After a decade of war and currency inflation, Germany required large amounts of capital for the reconstruction of its economic and social apparatus, and for export in the form of reparation payments. Domestic savings in the period 1924-30 were large, but not sufficient to satisfy all the urgent needs. Germany's demands as a borrower on the international money markets led to a rapid influx of foreign capital. Almost continuous tension in the money and credit markets made German economy highly sensitive to changes in the supply of loan funds. The large proportion of foreign capital in the economy increased its vulnerability to international economic disturbances, especially because much of this capital was subject to withdrawal at short notice. Doubtless short-term advances were immobilized to a considerable extent in long-term investments. Thus, an international credit crisis, leading to sudden recall of foreign funds, must have been a threat to financial stability.

There is reason to believe that the rapid cyclical recovery in 1924-25, and again in 1926-28, was closely associated with a large volume of foreign borrowings, and that the decline from 1928 to 1930

was related to a diminution in the inflow of funds. Rapid withdrawal of foreign credits in 1931 seriously shook the German economy.

Despite the importance of capital and credit in shaping the post-inflation cycles, there is relatively little consistency in the cyclical movement of many of the money and banking series. However, there is indication of an underlying tendency of rise to a peak in 1929 or 1930, and decline thereafter.

The years after currency stabilization were characterized by extensive technical and administrative reorganization of the industrial productive system. Apparently this industrial 'rationalization' was a factor in the sudden recession of 1925, in which many inefficient business organizations, legacies of the inflation, were forced into liquidation. Also, it was reflected in the upswing from 1926 to 1928, when the volume of production and sales at home and abroad expanded rapidly. But purchasing power in domestic and foreign markets was insufficient to absorb the increased productive capacity of German industry. Excess capacity contributed to the sweeping decline in commodity prices that characterized the recession after 1928.

The production of industrial raw materials and production goods reflects the stimulus given by the English coal strike in 1926, the sudden decline in the activity of the iron and steel industry during the lockout late in 1928, and the compensatory increase in production during the first half of 1929. Ap-

parently the stimulus to production in early 1926 contributed to the rapidity of recovery in many economic activities at that time, whereas the short revival in output of production goods in 1929 tended to retard the cyclical contraction for a time.

Analysis of series of agricultural production in post-inflation German economy supports the finding of studies covering other economies over longer periods; namely, the relationship between cycles in agricultural activities and cycles in industry and trade is not consistent. The group of agricultural series here considered shows relatively little correspondence with the general cyclical pattern in the number of cycles, their timing, amplitude and duration. However, there is reason to believe that the fortunes of agriculture in Germany have influenced the course of cyclical fluctuations in non-agricultural activities. Certainly, the chronic difficulties of German agriculture, manifested particularly in the relatively high prices paid by farmers for capital supplies and non-agricultural products and the relatively low prices received for their output, leading to low purchasing power on the part of the farming population, have been a depressive factor throughout the years since stabilization. Furthermore, agricultural relief, particularly in the form of tariffs, has been a heavy burden on industry and commerce.

The system of prices, particularly as reflected in the 'free' commodity prices and security prices, was subject to much the same cyclical pattern as were

other aspects of German economy. This pattern was also evident, although less definitely, in prices subject to regulation by public and private organizations—namely, in the prices of certain industrial commodities and in wages. It is possible that partial control of the price system may have accelerated the cyclical movements of prices that were not regulated, and even of the physical volume of production and employment. However, this is difficult to prove.

The number of commercial failures and liquidations of enterprises rose to high levels during 1925 and 1926, and there were many failures again in 1931. This must be viewed, in part, at least, as an aspect of structural reorganization of business from the chaotic conditions of the inflation—reorganization that was especially evident during recession and depression.

The labor market was especially sensitive to cyclical fluctuations, but such fluctuations were superimposed upon a deep stratum of unemployment that was present throughout the years 1924–32. The basically high level of unemployment appears to have been largely the result of structural changes, particularly in population and in industrial technique and organization. However, it is probable that these structural factors will become less important in the next decade.

Germany's foreign trade in the period 1924–29 was characterized by a rapid increase in volume, of both imports and exports, and by a fairly per-

sistent import surplus, which emphasized the dependence of German economy upon foreign capital supplies. In 1930-32, with the advent of world-wide depression, imports and exports declined. However, the German market for foreign goods contracted more sharply than did the markets for German exports. Consequently, in these years Germany's export balance was large. Variations in the volume of imports reflected closely the general cyclical fluctuations in German economy. The volume of exports, however, reflected general cyclical movement only towards the end of the period here considered. It seems probable that the maintenance of a relatively large export market for German goods was a factor preventing the cyclical contraction after 1928 from becoming even more severe.

A comparison of cyclical fluctuations in the economies of Germany and fourteen other countries, most of which are industrially or commercially important, offers no reason to contradict the belief that there is a "general trend toward uniformity of business fortunes" in various parts of the world. There has been rather close international similarity of phase in cyclical fluctuations since 1926, and the German cycle of 1926-32 has shown much the same sort of agreement with the cycles of other countries as was true in the decade before the War. The slow recession in Germany, beginning in the second half of 1928, and anticipating by almost a year the decline in economic activity of other nations, may have

been a reflection of its extreme sensitivity to changes in international credit conditions. The cycles of Czechoslovakia, The Netherlands, Poland and Switzerland are more highly correlated with German cycles than are those of other countries. The least agreement seems to have existed between the cycles of Germany and those of France, Italy and Denmark.

There is reason to believe that the post-War changes in German economy have made Germany more sensitive to foreign economic forces than it was before the War. The English coal strike in 1926 was an important stimulus to German business recovery in that year. Furthermore, the penetration of German economy by foreign capital was a structural modification with serious cyclical implications. Changes in the rate of inflow of funds were of significance in the cyclical movement, especially in the revival of 1924, and in the recession of 1928-32. If it is true that German economy has become more susceptible to international influences, it is to be expected that there will be increased tendency towards correlation between the cyclical fluctuations in Germany and in other industrial nations.

It appears that the course of cyclical fluctuations in Germany was at times dependent upon particular historical situations not originating immediately in German economy. Thus, the international conferences on reparation payments in 1924, leading to the organization of an agency that greatly facilitated such payments, gave impetus to the flow of foreign

capital to Germany. This inflow, as noted above, was a significant factor in the cyclical fluctuations from 1924 to 1930. Again, the long-continued and difficult reparation conferences in 1929 led to a feeling of uncertainty among business men, in Germany and in other countries, that may have contributed to recession. Also, the unprecedentedly cold winter of 1928-29 was a 'disturbing element' in that its reflection in business activity tended to exaggerate the recession early in 1929 and to veil it during the middle of that year. Finally, the growing strength of the extreme political parties during 1930 and 1931 probably accelerated the withdrawal of foreign credits that led to the crisis of the summer of 1931. Thus 'external' factors of non-economic institutional, of emotional and of physical geneses manifested themselves in the cyclical pattern of German economy. Nevertheless, it must be emphasized that factors more intimately associated in origin with the economy appear to have been predominant in shaping that pattern.

3. More comprehensively, it may be said that German economy in the years 1924-33 was subject to influences arising out of structural changes especially marked in the working population, in the technique of production, in business organization and in the financing process. Enmeshed with such fundamental modifications was a rhythm of cyclical fluctuations.

These changes in the structure of German econ-

omy, legacies of the period of war and currency inflation, were in large degree responsible for the unique character of the two post-inflation cycles. The months immediately subsequent to the stabilization of the currency were characterized by deep depression. Revival set in, after some hesitation, and carried the economy to relatively high levels. Active domestic demands, which had previously been delayed because of the confusion prevailing during the later stages of the inflation, together with the support of a heavy capital inflow from abroad, made for the unusual intensity of the upswing. The subsequent recession was short and sharp. It was probably in large measure an expression of the sweeping reorganization of German business—essential in order to eliminate inefficient firms that had been nurtured by inflation—and the continuing scarcity of capital necessary to sustain expansion at home and to make reparation payments. Recovery, however, was not long delayed. Further capital imports, improved business organization and methods of industrial production, together with the stimulus provided by expanded domestic income and growing foreign markets, carried the economy upward. But within two years, cyclical decline was again imminent. It seems probable that the high cost of urgently needed capital and the lack of sustained and widespread domestic purchasing power, reflecting the reduced incomes of those who had suffered economically during the inflation, the difficulties of agricultural

producers, and chronically large unemployment, made for the beginning of the decline. The contraction was at first gradual. Capital, though in insufficient amounts, continued to flow into Germany for several years, German foreign trade was sustained by continuance of favorable business conditions abroad, and industrial activity that was compensatory for the lockout and the unusual weather of the winter of 1928-29 tended to delay recession. However, after depression had become world-wide, the decline in Germany was more rapid. The inflow of capital was checked and confidence at home and abroad was shaken by political disturbances. The capacity to produce had expanded rapidly in the years after the inflation, but the rigidity of many commodity prices, the failure to extend rationalization into agriculture and the distributive system, and large unemployment weakened the purchasing power of the people and were important depressive factors in the long period of contraction.