

Money, Banking and Industry in Interwar Austria and Hungary *

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The closely interwoven history of money, banking and industry in two small and powerless countries on the confines of eastern and western Europe in the tormented years of the interwar period is, from more than one angle, of more than parochial or transitory interest. This history provides a contribution to the assessment of the impact of the gold-exchange-standard experiment, and its early disruption, upon credit, trade and domestic growth of small, peripheral, either industrial-tertiary or industrial-agricultural countries. Their banking experience, in most varied and mostly adverse conditions, indicates a notable capacity of what now would be termed "universal banks" for channeling finance from all possible sources towards profitable and usually productive uses. Developments in respect of bank-industry relations reveal striking capability of these "universal" banks, with adequate backing from lenders of last resort even without spectacular institutional reforms, for maintaining the banking system in functioning order and contributing to the development, preservation, or conversion of productive capacities and, in favourable conditions, to the productive deployment of the available labour force.

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The Macroeconomic and Institutional Framework

The macroeconomic framework in which the banking system of Austria and Hungary operated was determined, on the one hand, by the profound rearrangement of the political and economic structure of these two countries and, on the other hand, by a process of protracted depression, as a result of which national income of Austria at the end of the period was lower than in the last prewar year and that of Hungary one third higher only.¹ Prewar Vienna banking was the centre of a territory eight times the territory of postwar Austria and Budapest banking the secondary financial centre of a territory three and a half times that of postwar Hungary. The change in population numbers was of similar proportions. Parallel to the fragmentation of credit markets, there was a fragmentation of commodity markets, and this fragmentation was accentuated by the fact that the takeover of industrial property by national or international owners was a declared policy objective of all neighbouring countries which incorporated parts of the former monarchy's territory and population. Economic fluctuations, in consequence of these unfavourable structural changes, were thus in both countries inextricably interlinked with structural crises. Crisis and cyclical policies of both Austria and Hungary, in addition to major and recurrent, international and domestic, crises and depressions, had to face in these conditions, throughout the interwar period, a superimposed permanent crisis of structural nature.

The alternation of crises and recoveries was intense in both countries but, in comparison with prewar, on lower levels in Austria. The inflationary expansion of 1919-1922 in Austria and of 1919-1923 in Hungary, interrupted by an abortive stabilization in 1922, was followed by a stabilization crisis of one year in Austria (1923) and of about two years in Hungary (1924, 1925). The subsequent short-lived, mainly foreign-financed expansionary process shifted into stagnation in 1929 and a critical contraction in 1931 — from which recovery was gradual in both countries and, prior to the armaments boom, in Austria never reached, and in Hungary only slightly surpassed, the previous peak levels.

¹ The gross domestic product of Austria in 1929 was estimated to have surpassed the level of 1913 by 5 per cent but to have reached, after the crisis, a level still 9 per cent lower in 1937 (*Monatsberichte des Österreichischen Institutes für Wirtschaftsforschung*, Sonderheft 14, "Österreichs Volkseinkommen, 1913 bis 1963", Wien, 1965, p. 38). Gross domestic product of Hungary, in comparison with an average of 1911/13, was reckoned to have been higher by 22 per cent in 1928/29, by 26 per cent in 1937/38, and by 34 per cent in 1938/39 (A. ECKSTEIN, *Income and Wealth*, Chapter 5, Series V, reprint, Cambridge, England, 1956, p. 20).

The Banking System of Austria-Hungary

The evolution of bank-industry relations in the interwar period of both Austria and Hungary was profoundly marked by the evolution of the banking system in the preceding period of constitutional, monetary, financial, and customs union. The Austrian National Bank and the National Bank of Hungary were successors to the Austro-Hungarian Bank and took over important parts of its assets, liabilities, business, staff, and routines. Vienna- and Budapest-based commercial and credit banks formed a closely interwoven network of fundamentally "universal" banks and partly succeeded in continuing with their co-operation beyond the dual era. The complementarities developed between and within industries under the customs union also outlasted partition and contributed to maintaining transnational links between and inside their financial and real sectors.

The two countries' single bank of issue, the Austro-Hungarian Bank was one of the first central banks in Europe: it was established in 1816 as Oesterreichische Nationalbank and of longer standing than all other central banks — except for the Bank of England and the Banque de France. Subsequent to the constitutional compromise between Austria and Hungary, the Bank was reorganized in 1878 as a common Austro-Hungarian institution and it operated, after the currency reform of 1892, an effectively stable international gold standard. The First World War terminated this experience and the Bank became, during close to seven war and postwar years, a virtually powerless instrument of fiduciary issue. The Austro-Hungarian Bank thus bequeathed on the two succession states the still living tradition of a masterly managed gold standard — with all the immediate liabilities and consequences of galloping inflation.²

Vienna commercial and credit banks were the centre of the whole banking system of Austrian *Länder* and, in addition, had powerful influence over important parts of Hungarian banking. Two thirds of the share capital in Austrian banking was invested in Vienna banks. Headquarters of all leading banks was in Vienna but their 202 branches spread all over the *Länder*. Specially close links existed between Vienna and Budapest banks, in particular between Österreichische Creditanstalt and the Hungarian General Credit Bank and between Allgemeine Österreichische Bodenkreditanstalt and the First Hungarian Commercial Bank of Pest.

² *Oesterreichische Notenbank, 1816-1966: Geschichte des Oesterreichischen Noteninstituts* (on appointment written by S. PRESSBURGER, Wien, 1966), Chapter Two, pp. 151-367, "Die Oesterreich-Ungarische Bank, 1878-1923".

Leading Vienna banks, and their Budapest counterparts, from their very beginnings in and about the 1850's, aimed at developing concurrently both their short-term and their long-term business and, in this sense, were among the pioneers of what now would qualify as "universal banking". Österreichische Creditanstalt e.g., according to its foundation statutes of 1855, was, on the one hand, entitled "to accept money on current account and to transact banking business"; "to receive and pay dividend warrants and dividends and to recover claims in favour of third parties"; "to grant interest-bearing advances secured by Austrian government paper and land redemption debentures, shares and bonds of inland enterprises, bonds issuing from credit transactions of particular crown lands, districts or communes, then also raw materials and merchandise"; and it was, on the other hand, specifically authorized "to establish, in due legal manner, industrial and various other enterprises of public interest within the territory of the Austrian Monarchy, to effectuate, to this end, transformation of existing partnerships into joint stock companies, and to issue shares and bonds for this type of associations"; "to purchase and to sell, to pledge and to exchange for other assets Austrian government paper, inland industrial securities and also private debentures".³ Most of these leading Vienna and Budapest banks developed and sustained furthermore close links of co-operation with such then important international financial centres as Paris, London, Berlin, Hamburg and Milano.

Leading Vienna and Budapest banks, whether established as commercial banks or credit banks, developed into something like universal banks, clearly differing from the English type of deposit bank or the French type of "crédit mobilier". These Austrian and Hungarian banks, like big banks in Germany, Italy, Holland and Switzerland, engaged in both deposit and investment banking, and they were first and foremost in establishing close links between banking and industry. Their activities covered all banking operations but took their special characteristic from providing industrial finance. The usual form of industrial financing, without clear distinction between short-term and long-term operations, was current account credit guaranteed by undated covering bills. On the basis of this type of industrial credit and of participation in share capital, these commercial or credit banks assured themselves growingly strong controlling influence over industrial enterprises — with accounting control,

³ *Ein Jahrhundert Creditanstalt-Bankverein* (Wien, 1957), pp. 11, 305, "Statuten der priv. k.k. österreichischen Credit-Anstalt für Handel und Gewerbe, 1855", para. (4), letters (a), (c), (d) and (f), (g).

insight into financial documentation, powers of approval of company balance sheets, and chairmanship or influential representation in the board of directors.⁴

The Banking System of the Two Succession States

Parallel developments in Austria's and Hungary's banking and industry continued after the dissolution of constitutional ties. Co-ordination became looser between the two countries' finance and industries than within the integrated structure but developments continued on more or less parallel lines for many years to come. One important reason for recurrent correspondence in the sequence of events was the fact that both countries established their rehabilitated currency and their new and independent central banks under the auspices of the League of Nations. One further reason for parallel changes was similarities of organization and maintained close co-operation between Vienna and Budapest banks. Industrial strategies also showed like characteristics for the reason that industrial development was lagging in both parts of the former monarchy in subordination to services in the case of Austria and to agriculture in the case of Hungary.

The League of Nations, with the pioneering schemes for the financial reconstruction of Austria and Hungary, assumed a role of vital importance for both countries' financial destinies. The financial reconstruction schemes of 1923 for Austria and of 1924 for Hungary provided for the issue of major international loans which were to serve the purpose of stabilizing their currency and budget. The chief objective was stoppage of inflation and external and internal stabilization of currency which was to be obtained by the co-ordinated deployment of three powerful instruments: the establishment on an internationally recognized pattern of an independent bank of issue enjoying the monopoly of note issue; the institution of budgetary procedures and practices providing adequate safeguard for balanced and realistic budgeting; and the issue on international markets of reconstruction loans, secured by specific revenues, so that inflation could be stopped without waiting until the budget was balanced. The schemes, in the event, brought early financial stability to both countries but also determined their international credit policies and their

⁴ On the evolution of bank-industry relations in the prewar era from the angle of interwar developments see H. PUXBAUM, *Das mitteleuropäische Bankwesen* (Berlin, Wien, 1929), pp. 9-19, 25-28; W. SWOBODA, *Sonderhefte der Betriebswirtschaftlichen Blätter*, no. 3, pp. 53-59, "Das industrielle Bankgeschäft in Österreich"; and, foremost, W. REIK, *Die Beziehungen der österreichischen Grossbanken zur Industrie* (Wien, 1932).

domestic monetary and fiscal policies on a close to common pattern, at least, until the great crisis and, in some respects, even beyond.⁵

The network and organization of commercial and credit banks in the early interwar period showed little change in comparison with prewar in either of the two countries. Leading Vienna and Budapest banks, although importantly affected by war finance, new boundaries and continuing inflation, maintained operations as usual in headquarters and inland branches and were hardly restrained in their activities by new legislation. Hungary established and developed a new institution of banking control, the Central Corporation of Banking Companies (Pénzüntézeti Központ) which was empowered to act as an official organ of accounting control, as an executor in cases of bankruptcy or merger, and as an administrator of some officially financed credit schemes.⁶ Powers to act as executors in cases of default were invested in Austria upon Oesterreichisches Credit-Institut für öffentliche Unternehmungen und Arbeiten (Austrian Credit-Bank for Public Corporations and Works) but important cases mostly were treated by special legislation — one-by-one.⁷

The interpenetration of banking and industry became even more intense than before the war in both countries, the more so as banks had a preponderant role in financing, developing and managing war industries. The central-bank role in the interwar period was, if anything, of greater importance than in the prewar period because of comparatively low saving ratios and a poor functioning of financial markets in both countries. Commercial and credit banks thus combined the role of intermediaries towards the central bank as well as towards foreign and domestic investors. They transmitted the results of credit creation and capital transactions towards industry and transport and played an important role in the management of cash flow.

Banks importantly participated in the share capital of industrial companies, to the extent that a large part of their own share capital was counterbalanced by share capital and consortial participations in industrial enterprises. An important part of financing was effectively long-term but formally short-term credit, mostly financed from short-term deposits and partly only through saving deposits or cash bonds. Banks in these conditions usually had a strong control over industrial enterprises and reinforced their controlling influence by relying

⁵ See LEAGUE OF NATIONS, *The Financial Reconstruction of Austria: General Survey and Principal Documents* (Series of League of Nations Publications, Geneva, C.658.M.232. 1926, II); LEAGUE OF NATIONS, *The Financial Reconstruction of Hungary: General Survey and Principal Documents* (Ser. L.O.N.P., Geneva, 1926, II.54); LEAGUE OF NATIONS, *The League of Nations Reconstruction Schemes in the Inter-war Period* (Ser. of L.O.N.P., Geneva, 1945, II.A.8).

⁶ Law XIV of 1916, Law XXXVII of 1920 and Law XIII of 1926.

⁷ Cf. PUXBAUM, pp. 46-47.

on deposit voting rights in the general assemblies of industrial companies. Finally major banks became consolidated in a single concern with industrial enterprises, to the effect that it was often directors of major banks who were effectively managing industrial enterprises. The banks thereby became financial corporations of industrial concerns and in many cases even took over marketing of industrial products, e.g. the Creditanstalt for textiles, coal, sugar, etc., and the Bodenkreditanstalt for timber, sugar, and alcohol.

The financial dimensions of banking business, however, changed fundamentally between the prewar and postwar period in both Austria and Hungary. Vienna banks provided banking services and met credit requirements of the real sector of a population of 25-30 million; and they had controlling influence over important parts of Budapest banks which, in turn, catered for industry, transports, etc. and agriculture of a population of more than 20 million. Of the 202 branch offices of five major Vienna banks 99 only operated in Vienna or postwar Austrian territories and 103 in cities and areas incorporated by Czechoslovakia, Poland, Romania, Yugoslavia and Italy. Industrial credits and participations invested in these areas accounted for approximately one half of the total of these posts in the consolidated balance sheet for 1913 of Vienna banks.⁸ The total of share capital and open reserves in the opening balances of 1 January 1925 of seven principal Vienna banks amounted to not more than 15.5 per cent of the total of these posts in their consolidated balances of 1913 *plus* the value of share issue in the intervening period.⁹ Devastating consequences of contraction of like proportions became grossly aggravated by nationalization measures in banking and industry and stiffly protectionist trade policies of newly created or enlarged national states.¹⁰

Development of bank-to-industry relations in the two countries, in spite of all parallel changes, eventually took divergent directions in the crisis-ridden, for them contracted and compartmentalized world of the interwar period. Direct

⁸ Cf. *Ein Jahrhundert Creditanstalt-Bankverein* (subsequently Cf. *Ein Jahrhundert*), p. 161.

⁹ Cf. REIK, p. 34.

¹⁰ W. T. LAYTON and C. RIST, *The Economic Situation of Austria* (League of Nations, C.440 (1). M. 162 (1). 1925 II), pp. 26, 88-89. Tariff levels were much higher in five succession states than in Austria itself or Italy (or most other important European or overseas traders) as can be seen from the following estimates calculated for and given in the report (average percentage rates of customs duties calculated on two different methods) Austria and Italy - 16,21; Romania - 19,23; Czechoslovakia - 21 1/4, 30 3/4; Yugoslavia - 27,41; Hungary - 28,40; Poland - 49,67. The consequence was trade diversion from these partners towards other countries as already appears from shifts in percentage shares in relation to total exports in comparisons between the year of high inflation (1922) and the second year after effective stabilization (1924): Hungary, Yugoslavia, Czechoslovakia, Romania: 1922 - 42.1; 1924 - 36.8; other European countries: 1922 - 46.9; 1924 - 48.9; overseas countries: 1922 - 11.0; 1924 - 14.3.

international links beyond the territory of former Austria were much stronger in Vienna than in Budapest banking. The main international partner of Budapest bankers was Vienna. The collapse of the international financial system, for this reason, much more directly and importantly influenced developments in Austria. The problems of industrial rehabilitation and progress also differed. Vienna banking lost its industrial background in the Czech parts of the new Czechoslovakia. Budapest banking, however, maintained a major part of its interests, which were concentrated around Budapest itself. The market problem facing these industries was nevertheless equally acute because of tariff barriers cutting off the remaining industries from their customers. The adaptation problem in Austria called for a complete centralization of the banking system and the transfer of all industrial financing to a single large bank. The possibilities of industrial rehabilitation within the national framework of Austria also were extremely limited. The adaptation problem of Hungary was carried out with a practically unchanged banking structure and its industrial strategy could rely on the powerful protective effect which the introduction of foreign-exchange management provided.

Crises and Rehabilitation in Austria

The structural crisis of the 'twenties in combination with the international financial crisis of the 'thirties created in Austria problems of inordinate gravity to governments, bankers, industrialists and industries throughout the interwar period. The cumulative financial burden of lost war, heavy peace-treaty obligations and an over-dimensioned administrative structure was for partitioned Austria in its first years virtually impossible to bear — without initial inflationary financing and subsequent massive inflow of foreign finance in support of stabilization. Austrian banks, much weakened by the loss of an important part of their branch network, participations, partners, and customers, the sharp inflationary reduction in the value of their assets, and the much reduced saving capacity of an impoverished population, were to face a prolonged critical phase of concentration, bankruptcies and mergers. Austrian industries were, in turn, vitally affected in, and lost most of, their auto-financing potential — because they were cut from traditional markets and suppliers by highly protective tariff barriers and greatly nationalistic industrial policies in each and all of six succession states. Massive withdrawal of foreign credits and difficulties in maintaining a convertible and internally stable currency in the later phase again aggravated these problems.

The financial and industrial leadership of interwar Austria, attracted from many lands of the former empire in the past, had a varied and valuable back-

ground, based on large openings and rich experience in banking, industry, commerce and government of these lands and on excellent general, secondary and graduate schooling in particular in economics, legal studies, management and applied technical science. This traditional leadership, although often limited in powers by foreign controlling influence, successfully maintained most of its positions throughout the periods of inflation and credit expansion but was overtaken by superimposed structural and international crises of the late 'twenties and the early 'thirties. Two traditional leaders of shining prestige, Louis Rothschild, of banking-aristocratic extraction, and Rudolf Sieghart, of imperial administrative distinction, had to withdraw with the collapse of their respective banking establishments. Other executives and managers with business and administrative experience of the bygone empire were often profoundly affected by postwar contraction and recurrent crises and also forced into premature abandonment of their positions. Many of the earlier generation on medium echelons, of equally rich experience and solid formation, saw, with decline or stagnation in banking and industry, their professional horizon contracting and often were forced by later political developments, either into emigration or inactivity.

Changed leadership established in the course of crises, was mostly drawn from Vienna itself or Austrian provinces and initially often had less wide experience but upheld difficult positions with sober pragmatism and, after restoration of the country's independence, some again emerged in leading positions. The younger generation, entering banking or industry in the later phases of the interwar period, also suffered initial disadvantage from increasingly limited possibilities for experience in international banking and from a decline in the earlier outstandingly high levels of schooling and training.

Inflationary Finance

War-time inflation continued in Austria in the armistice and peace-treaty period under the aegis of the Austro-Hungarian Bank and after the separation of currency areas under its distinct Austrian administration. The annual expansion of currency circulation was of the 40-50 per cent order in the course of 1919 and 1920 but it speeded up to nearly five-times in 1921 and 22-times in 1922. Cost of living about doubled each year in the first two years of the new Austria but then increased more than eight-times in 1921 and 15-times in 1922.¹¹ The external value of the Krone shrunk even faster from its extremely high managed

¹¹ See G. KLETZL, "Die Lebenskosten", in *Schriften des Vereins für Sozialpolitik*, volume 169 (1925), "Geldentwertung und Stabilisierung in ihren Einflüssen auf die soziale Entwicklung Österreichs", p. 147.

CURRENCY CIRCULATION AND ASSETS
OF AUSTRO-HUNGARIAN
AND AUSTRIAN BANKS OF ISSUE: 1918-1924
(Million Krone)

	Note circulation and sight liabilities	Bills, warrants, loans	Gold, foreign exchange ^a	State debt ^b	Other assets ^c
<i>Austro-Hungarian Bank</i>					
31 December 1918	42,730	11,232	343	31,577	9,022
Change: 1919	20,477	7,964	-55	12,111	-6,645
1920	27,426	24,348	31	986	19,193
31 December 1920	90,633	43,544	319	44,674	21,510
<i>Austrian banks of issue</i>					
31 December 1920	34,424	23,791	2,706	114	8,997
Change: 1921	158,597	12,255*	..	144,601*	..
1922	4,215,518	746,216*	..	2,413,771*	..
1923	3,366,640	543,118	5,672,611	-23,996	-1,133,802
1924	1,166,038	556,213	1,700,772	-356,305	299,120
31 December 1924	8,941,217	1,881,593	7,901,638	2,178,185	461,366

Note: For 1918-1920 - Austro-Hungarian Bank; for 1920-1922 - Austrian administration of Austro-Hungarian Bank; for 1923-1924 - Austrian National Bank.

* Estimate.

^a Including silver, etc. coins.

^b Of which, Hungary: 1918 - 9,036; 1919 - plus 7,637; 1920 - plus 973; 1920 - 17,645.

^c Including securities and mortgages.

Sources: See for this and all subsegment tables "Note on Statistics" (pp. 196-197).

level in December 1918 (at about 1/3 of its parity rate) to its lowest point in August 1922 (at 1/17,000 of the parity): the annual fall was to 1/10 in 1919; it was much slower, to 1/3 in 1920; and then it speeded up again to less than 1/12 in 1921 and less than 1/13 in the first eight months of 1922. From this lowest point it rose by 18 per cent in the last four months of 1922 — close to the level on which it steadied for many years (1/14,400).¹²

The primordial driving force in this inflationary currency expansion was budgetary deficits which rose in Austria from 16 per cent in the period up to mid-1919, to 24 per cent in the budgetary year 1919/20, to 28 per cent in 1920/21

¹² Cf. *Notenbank, 1816-1966*, p. 361 - calculated through the Vienna quotation of the Swiss franc up to April 1919, through the Vienna quotation of the US dollar up to end-1921, and thereafter in accordance with the parity established by the bank of issue for payments of customs duty.

and then bounced to 64 per cent in the second half of 1921, and receded slightly only to 49 per cent in the new budgetary year 1922.¹³

The respective parts of "budgetary" or "commercial" financing in inflationary currency expansion cannot be distinguished with precision in the statements of the banks of issue concerned. The increase in the portfolios of "bills, warrants, loans", according to the statements of the Austro-Hungarian Bank, accounted for about 40 per cent of the increase in currency circulation in 1919 and for about 90 per cent in 1920 — but, according to official comment, an important part of the rise in the "commercial" portfolio in 1919, and even more so in 1920, came from rise in the entry "discounted treasury bills".¹⁴

The reported change in proportions again was important in 1921 and 1922. The rise in the "commercial" portfolio, according to statements of the Austrian administration of the Austro-Hungarian Bank, amounted to a mere 8 per cent of the increase in currency circulation in 1921 — in contrast to 91 per cent from "State treasury bills". The share of "commercial" paper in the increase of currency circulation again rose somewhat in 1922 — to 18 per cent against a reduction in the share of "State" paper to 57 per cent (while 25 per cent of the increase resulted, most likely, from an influx of foreign exchange).

The position of banks as financial intermediaries was strong in the inflationary period. Banks had a varyingly important role in accepting and forwarding governmental paper to the bank of issue and they acted as financial intermediaries towards the bank of issue and foreign money markets for all sectors of the economy. Credit requirements of industry, in conditions of rapidly rising wages and prices of current and investment inputs, were particularly pressing and conducive to fast increasing indebtedness and financial immobilization of industrial firms. Banks in such situations were able, by converting frozen credits into share participation, to transform credit control into ownership control over industrial firms and they could even further strengthen their dominant position by relying on their leading role in issuing syndicates.¹⁵

The importance of banks as partners in industrial management became much enhanced in the inflationary period — on account of their key role as financial intermediaries and their strengthened position in general assemblies and management boards. Banks provided finance, from domestic and foreign sources, and management advice to industrial firms for industrial development,

¹³ Cf. *Ein Jahrhundert*, p. 336.

¹⁴ Cf. *Notenbank, 1816-1966*, pp. 349-350, 354-355.

¹⁵ For a critical analysis of share-issue transactions in this period and a case study concerning Alpine Montangesellschaft, the largest industrial concern of interwar Austria, see K. AUSCH, *Als die Banken fielen: zur Soziologie der politischen Korruption* (Wien, 1968), pp. 127-133.

industrial reorganization and for running current production. Newly developed or technically reorganized industries included ferro-alloy production, aluminium and aluminium-ware production, radio and telecommunications-equipment industry, artificial fibre production, paper industry, furniture production, shoe production, film industry, etc. Reorganization measures provided for mergers, rationalization and revision of production programmes e.g. in the motor-vehicle, aircraft, railway-rolling-stock, and shipbuilding industries.¹⁶ Of equal importance was the contribution of banks to maintaining many other industries 'in solvent condition and good technical shape'.¹⁷

Inflationary monetary expansion, fast depreciating currency, and financial resources provided through inflationary finance or capital imports created conditions in early postwar Austria for a powerful industrial production, investment and export boom which, after resumption of regular fuel and raw-materials imports, lasted for close to three years — from late 1919 to the second half of 1922. Gross domestic product at constant prices, from its very low levels in the early postwar years (at 66 per cent of 1913 in 1920), progressed by 11 per cent in 1921 and by 9 per cent in 1922. Industrial production, from even lower levels (at 56 per cent of 1913 in 1920), advanced at closely corresponding rates. Exports increased by 22 per cent in 1922. Apparent consumption of cement, a poor indicator of investment activity, about doubled in 1921 (increase by 95 per cent) and further rose by 19 per cent in 1922.¹⁸ Industrial unemployment gradually approached minimum levels but real wages fell recurrently below subsistence.¹⁹

The expansionary force of inflationary upswing, however, spent itself by August 1922 and repercussions became appalling in terms of industrial disorganization, convulsion of price relatives, and crudest distortion of income distribution between Vienna and rural districts and between the rich, the poor and the poorest. "In August 1922 Austria was *in extremis*" (as one of the chief architects of the financial reconstruction scheme put it). "Beaten, broken,

¹⁶ Cf. *Ein Jahrhundert*, pp. 167, 340-341, R. STRIGL, "Das industrielle Kapital", cf. *Schriften des Vereins für Sozialpolitik*, volume 169 (1925), pp. 75-77.

¹⁷ Cf. LAYTON and RIST, p. 33 - which summed up under the following two points their overall assessment of this type of bank-industry relations: "First, that whatever the drawbacks of the system, it is evident that, in a country whose savings are small, industries would not have been built up nearly to the same extent without the aid of the banks. Secondly, since the war, the backing of the banks has maintained many industries through conditions of the greatest difficulty".

¹⁸ Cf. *Monatsberichte des Österreichischen Institutes für Wirtschaftsforschung*, Sonderheft 14, p. 38; I. SVENNILSON, *Growth and Stagnation in the European Economy* (U.N. Publications, Geneva, 1954, II.E.3.); pp. 285, 312-313.

¹⁹ J. JELLINEK, "Die Industrie Österreichs" in *Zehn Jahre Nachfolgestaaten* (Österreichischer Volkswirt, Wien, 1928), p. 80; cf. KLETZL, pp. 155-6.

and dismembered she had been the most dramatically tragic of the war victims. She now had a third of her population crowded into Vienna, which could no longer attract resources as the capital of a great Empire or continue her earnings as the banker of South-Eastern Europe. She could not feed herself, or produce, or earn by exports, either raw materials or the barest necessities of life. ... Public expenditure was being financed, not by taxation, but by printing new notes, without gold, credit, revenue or goods behind them. ... The result was a degree of inflation which deprived the country of the indispensable medium of exchange without which it could not develop even such domestic resources as it still possessed. ... Vienna at this time was a tragic scene; its great streets empty of traffic; its shops closed; its people of all classes, including scholars of wide reputation, remnants of the older aristocracy and once prosperous businessmen, were visibly starving. ... There had been no reconstruction. The basic financial and currency trouble was more serious than ever ..."²⁰

Stabilization and Reorganization

The pioneering League of Nations scheme for the financial reconstruction of Austria was agreed upon and carried into effect at a highly critical stage of the country's political and economic fortunes. Agreement on the scheme was delayed for many months because of unresolved divergencies between the major and lesser powers involved concerning political implications and the underlying concept of the scheme and the consequent impossibility of adequately preparing the ground for the issue of the required major long-term loan on international markets. But once agreed upon and endorsed in the three Protocols of Geneva of 4 October 1922,²¹ implementation of the scheme progressed, on the whole, swiftly and efficiently.²²

The reintegration of Austria into the complex framework of international

²⁰ LORD SALTER, *Memoirs of a Public Servant* (London, 1961), pp. 175-6.

²¹ Cf. *The Financial Reconstruction of Austria: General Survey and Principal Documents*, pp. 137-150. Signatories were: Great Britain, France, Italy, Czechoslovakia, and Austria. Protocol II, with Annexes, included the financial reconstruction scheme itself. Protocol I provided for reciprocal assurances concerning the country's independence. Protocol III invested the Commissioner General with far-reaching powers of control over implementation.

²² The League agency responsible for the elaboration and execution of this and other League-sponsored financial reconstruction schemes was its powerful Financial Committee which was composed of financial experts of highest international standing and which was well served by a competent secretariat. The Committee and the Secretariat, moreover, had the full backing of central bankers and bankers in the chief centres of international finance (among whom first and foremost were Montagu Norman of the Bank of England and Benjamin Strong of the Federal Reserve Bank of New York).

finance and trade through currency stabilization and financial reorganization was by no means a simple technical problem, but an incredibly involved political and economic issue. It opposed governments, central bankers, and bankers in Great Britain and the United States, to their French and other discordant counterparts.²³ It confronted the conservative government of Austria with the strong socialist opposition: the first fought for stabilization and international credit transactions as sponsored by the League of Nations; socialists and their allies refused these schemes and, in particular, the terms implied.²⁴ It set bankers and industrialists who wished to maintain a broad regional co-operation, extending beyond the frontiers as established by the peace treaties, against bankers and industrialists who wished to follow narrow national orientation, reducing operations to the small residual territory of the country. It had to face the conflict in the region between generous free-trade ideas and a devastatingly protectionist reality.²⁵

²³ Montagu Norman, who on the financial reconstruction of Austria was given free hand by the British Government, followed a big design in the framework of his overall European concept, as clearly appears in a letter he himself wrote to Benjamin Strong on 9 April 1923: "At the end of next month I hope there will be an issue of a Long Term Loan for Austria throughout Europe. ... I am anxious Morgans do the same in New York. If we can thus set up Austria, we must tackle Hungary so as to establish one by one the *new parts of old Austria* ... and then perhaps the Balkan countries. Only by thus making the various parts economically sound and independent shall we reach what I believe to be the ultimate solution for Eastern Europe, viz. an economic federation to include half a dozen countries in or near the Danube free of Customs Barriers etc." Montagu Norman, accordingly, supported arrangements through the League Financial Committee and aimed at strong neutral participation while consecutive French and other allied governments fought protracted battles, mainly by refusing release of reparations, relief-bond, etc. liens, in order to obtain control over the scheme by placing it "under the direction of a Committee in Paris, representing in theory the League but in practice the Entente, as the Entente would apply any necessary political pressure on Austria" (the first quotation, from a letter referred to by Sir HENRY CLAY in his official biography, *Lord Norman* (London, 1957), pp. 189-190; the second quotation, from the text of the biography, *ibid.*, p. 183; also see A. BOYLE, *Montagu Norman. A Biography* (London, 1967), p. 145.

²⁴ On many points corresponding programmes of financial reconstruction were put forward, and adamant opposition was sustained against the League-of-Nations scheme, by one of the prominent leaders of the Social Democratic Party, OTTO BAUER (*Der Genfer Knechtungsvertrag und die Sozialdemokratie*, Wien, 1922) and a widely known financial expert and editor, Dr. GUSTAV STOLPER (*Der Österreicherische Volkswirt*, 19 August 1922, "Der Weg zur Rettung" and 23 September 1922 "Die falsche Alternative").

²⁵ The League's competent organs for financial reconstruction which had very real powers in financial matters had no such powers in matters of commercial policy: they had, therefore, to restrict themselves in this domain to rather vague and mostly ineffective recommendations. The Financial Committee in its "General Statement" submitted to the League Council prior to the signature of the Geneva Protocols e.g. advocated "amelioration of the international economic relations" and "the encouragement of the conditions which would increase Vienna's entrepot, financial and transit business" but it had to add that "these are ... outside the Financial Committee's province". The Economic Committee, asked by the League Council for suggestions in this context, "advised the conclusion of conventions and bilateral agreements between Austria and each of the Succession

Two basic objectives of the financial reconstruction scheme were rapidly achieved. On 18 November 1922, uncovered note issue to the government was stopped. The Austrian National Bank was established in the assembly of shareholders of 23 December with a share capital of 30 million gold Krone (an equivalent of 43 million Schilling) as an independent bank of issue enjoying the monopoly of note issue on the Brussels and Genoa model of the international gold-exchange standard.²⁶ On 2 January 1923, the Bank began operations — by taking over the business of the Austro-Hungarian Bank.

There was, however, some further delay with the attainment of the third objective, namely the placement on international markets of the required long-term loan. This gap was temporarily filled by the issue in December 1922 - January 1923 on the internal market of \$ 10 million (49 million gold Krone or 70 million Schilling) treasury bonds and the placement in February 1923 of £ 3.5 million (about 80 million gold Krone or 115 million Schilling) of Austrian treasury bonds in London, Paris, Amsterdam, Brussels, Stockholm and Switzerland.

The indispensable long-term loan, the Guaranteed 6-7% State Loan of 1923-1943 of Austria (League of Nations Loan) was finally floated at successive stages between 11 June and 21 August 1923 in Great Britain (£ 14 million), the United States (\$ 25 million), Czechoslovakia (60 million gold Krone), Sweden (13.10 million Swedish crowns), Holland (3 million Gulden), Belgium (25 million Belgian francs), Switzerland (25 million Swiss francs), Italy (200 million lire), France (170 million French francs), and in the course of June in Austria (\$ 13 million) and much later in Spain (26 million gold Krone) — to a total nominal amount of 780-790 million gold Krone (1,110-1,120 million Schilling). The net yield, considering prices of issue and issuing costs, ranged from 75 per cent for the Czechoslovak issue to 85.6 per cent for the American and 87.8 per cent for the Italian and it averaged around 80 per cent — which means a total net yield available to the Austrian government of 620-630 million gold Krone (about 900 million Schilling).²⁷ This was the amount disposable for covering

States" and "called attention to the need for Austria to reform both her international economic system and the conditions of its external trade" (Cf. *The Financial Reconstruction of Austria: General Survey and Principal Documents*, pp. 20, 186).

²⁶ The Austrian National Bank on which the government conferred the sole right to issue notes was, accordingly, a bankers' bank, virtually independent of State control. The statutes limited business to the discount of genuine commercial bills and excluded government borrowing without special authorization. The statutory reserve was allowed to include not only gold but eligible foreign exchange (notes and bills in stable currencies).

²⁷ Cf. *The League of Nations Reconstruction Schemes in the Inter-War Period*, pp. 31, 33; R. KARL, *Die Österreichische Völkerbundanleihe*, Part Two (Wien, 1929), pp. 3, 5.

budgetary deficits in the years 1923-1925 (initially estimated at a maximum of 650 million gold Krone or about 940 million Schilling) which partly was already financed through the short-term internal and international loans of early 1923 and which now were due for reimbursement (about 130 million gold Krone or 185 million Schilling).

This most cautiously designed financial reconstruction scheme, providing for the accumulation of an important gold and foreign-exchange reserve and programming strict budgetary deflation by massive expenditure reductions and substantial tax increases, reached its formal objective, establishment of a new, stable and convertible "Schilling" currency on 20 December 1924, more than two years after its entering into operation²⁸ — partly because of an intervening balance-of-payments crisis (not unrelated to the fact that the exchange rate was maintained throughout these years on a high level in terms of purchasing power).

Restoration of realistic and regular accounting and management practices in banking, industry and the whole economy was a further fundamental constituent of the League-sponsored financial reconstruction scheme. The Law on gold balance-sheets of 4 June 1925,²⁹ accordingly, ordered all enterprises to establish opening balance-sheets on the same principle as new enterprises — by reassessment of all assets and liabilities in terms of the newly established Schilling currency.

The comparison of the opening Schilling balance-sheets for 1925 of four leading Vienna banks (Österreichische Creditanstalt für Handel und Gewerbe; Allgemeine Österreichische Bodenkreditanstalt; Wiener Bankverein; and Niederösterreichische Escompte-Gesellschaft) with the balance-sheets of the same four banks for the last prewar year (1913) sheds sharp light upon contraction and structural impairment of calamitous proportions. The balancing total of the four banks' consolidated balance sheet fell by 66 per cent from 3,492 million Krone or 4,971 million Schilling at end-1913 to 1,703 million Schilling at end-1925. The reduction was by 76 per cent for corporation-owned capital (share capital *plus* open reserves) in comparison with a reduction by 57 per cent for borrowed capital (deposits, creditors, acceptances), which implied a de-

²⁸ The new Schilling currency was established as a round multiple of and directly linked to the devalued Krone which had been maintained stable and convertible throughout 1923 and 1924 at 1/14,000 to the old Krone. Equivalents, accordingly, were as follows: one Schilling (0.2117 grammes of fine gold) = 10,000 current Krone = 0.694 gold Krone. One Schilling equalled 14.06 US cents of the pre-1933 parity (US \$ 20.66 per oz of fine gold). One Schilling of those days could buy about 2.80 "present" U.S. dollars (calculating with the arithmetic average of highest and lowest London fixings in August 1981).

²⁹ *Bundesgesetzblatt*, No. 184.

terioration in the cover ratio (corporation-owned capital in relation to borrowed capital) in the prewar to interwar comparison from 30 per cent to 17 per cent. The liquidity ratio (liquid assets in relation to borrowed capital) had also fallen from 35 per cent at end-1913 to 15 per cent at end-1925. The items "other assets" and "other liabilities" in the balance sheets shrank by close to 94 per cent — mainly because of the near-to-complete ruination by inflation of the mortgage, communal, etc. loans and bonds business. The operating cost ratio (salaries, costs, taxes in relation to the total of corporation-owned and borrowed capital), on the other hand, increased from 1.3 per cent in 1913 to 4.6 per cent in 1925 — because of increased operating costs and reductions in operating capital.³⁰

The contraction of the Vienna banking system consequent on war-time and postwar inflation, territorial changes,³¹ and punishingly severe peace-treaty stipulations,³² however, was of much vaster proportions than would appear from the prewar to postwar comparison of the consolidated company balance-sheets of four leading Vienna banks which, at that time, were considered as the sound core of Vienna banking. Two important banks, Österreichische Länderbank and Anglo-Oesterreichische Bank became foreign-owned and transferred their headquarters to Paris and London because their heavy outstanding debt in foreign currencies was transformed into foreign creditors' shareholdings. Another of the ten major banks, Allgemeine Depositenbank went into bankruptcy already before the establishment of the opening gold balance-sheets (together with two medium-sized banks, Wiener Lombard- und Escompte-Bank and Central-Boden-Credit-Bank). Two further major banks, Union-Bank and Allgemeine Verkehrsbank were merged two years after establishment of gold balance-sheets while the tenth of these banks, Merkur Bank lost its characteristic as a major bank. The total share capital of 830 million gold Krone or 1,200 million Schilling of ten major Vienna banks at end-1913 on these

³⁰ The operating cost ratios here given refer to six banks (two in addition to the four considered in the table and the preceding comparisons); these were given by PUXBAUM (p. 16) whose corresponding analysis also covers Union-Bank and Allgemeine Verkehrsbank.

³¹ The total of capital invested by Vienna joint-stock banks of a share capital of 2,302 million Krone in industries on territories annexed by Czechoslovakia, Poland, Yugoslavia, and Italy was estimated at about 2,500 million Krone, of which: 800 million Krone in the mineral oil industry, 400 million Krone in coal mines and steelworks, 300 million Krone in the machine industry and about 1,000 million Krone in textiles (Cf. *Ein Jahrhundert*, p. 161).

³² The Peace Treaty of St. Germain-en-Laye of 10 September 1919, imposed an oppressively heavy burden on the Austrian State and a heavy burden also on the private sector, in particular banks and industrial enterprises. Clauses of the Treaty ordered confiscation of the gold reserve of the Austro-Hungarian Bank; confiscation of all Austrian State property in foreign countries; confiscation also of all assets in allied and associated countries; and revalorization of prewar debts to foreign creditors. The Austrian State was to guarantee all debts of Austrian citizens to citizens of allied and associated countries; it also was to accept a general lien on all Austrian State property as a guarantee of reparations payments.

ASSETS AND LIABILITIES OF FOUR LEADING AUSTRIAN BANKS
AND THEIR SUCCESSORS: 1913-1936
(Million Schilling)

	Total of balance sheet	Liquid assets	Debtors	Securities, participations	Other assets ^a	Share capital, reserves	Deposits, creditors, acceptances	Other liabilities ^b
31 December 1913 ^c	4,971	1,146	2,692	444	689	996	3,295	680
1913-1925: ±	-3,268	-937	-1,441	-246	-644	-754	-1,876	-638
31 December 1925	1,703	209	1,251	198	45	242	1,419	42
1925-1928: ±	+1,329	+314	+887	+107	+21	+110	+1,193	+26
31 December 1928	3,032	523	2,138	305	66	352	2,612	68
1928-1930: ±	-35	-212	-2	+9	+170 ^d	+4	-12	-27
1930-1932: ±	-1,596	-212	-1,085	-157	-142	-151	-1,473	+28
1932-1934: ±	-303	31	-323	-15	+4	-28	-280	+5
1934-1936: ±	-139	+19	-141	-5	-12	-64	-69	-6
31 December 1936	959	149	587	137	86	113	778	68

Note: Refers to Österreichische Creditanstalt; Allgemeine Bodenkreditanstalt; Wiener Bankverein; Niederösterreichische Escompte-Gesellschaft; Creditanstalt took over Bodenkreditanstalt in 1929; Creditanstalt merged with Wiener Bankverein in 1934 and took over current business of Escompte-Gesellschaft; other assets and liabilities of Escompte-Gesellschaft were transferred to newly established Österreichische Industriekredit-Aktiengesellschaft.

^a Includes mortgage, communal and housing loans.

^b Includes mortgage, communal and housing bonds.

^c Calculated at one gold grown = 1.44 Schilling.

^d Including subsidies related to rescue operations.

CURRENCY CIRCULATION AND ASSETS OF THE AUSTRIAN
NATIONAL BANK: 1924-1930

(Million Schilling)

	Note circulation and sight liabilities	Bills, warrants, loans	Gold, foreign exchange	State debt	Other assets
31 December 1924	894.12	188.02	488.14	217.82	348.30*
Change: 1925	50.91	-7.77	85.05	-29.88	17.34
1926	39.63	-56.75	106.76	-10.66	6.60
1927	60.60	8.21	57.91	-4.10	-10.70
1928	78.57	76.37	59.49	-57.02	-90.88
1929	34.45	97.57	-56.84	-7.52	12.19
1930	24.48	-157.62	189.32	-7.44	40.92
31 December 1930	1,182.77	148.01	929.83	101.21	323.77

* Of which: foreign exchange not included in currency cover - 302.02.

grounds can be considered to have been reduced to perhaps 10-12 per cent of the prewar level and the total of balance sheets of 6,200 million gold Krone or 8,900 million Schilling to perhaps 16-20 per cent.³³

The contraction apparent from the opening gold balance-sheets of the four leading Vienna banks is of even greater proportions if capital added by new share issues between end-1913 and end-1925 is considered. For these four banks, company-owned capital in the opening gold balances of 1 January 1925 amounted to not more than 16.8 per cent of the sum-total of stock capital and open reserves on 31 December 1913 *plus* the value of share issues in the intervening period: the fraction was 15.7 per cent for Creditanstalt, 16.2 per cent for Bodenkreditanstalt, 15.4 per cent for Bankverein, and 22.5 per cent for Escompte-Gesellschaft.³⁴ But banking control over industrial enterprises was and remained widespread and firm.

The success of the League-sponsored reconstruction scheme was spectacular in matters of currency and international capital movements. Currency circulation, after the necessary upward adjustment from extremely low levels in the initial stages of stabilization, expanded in 1925-1928 at an average annual rate of 6 per cent - with relatively modest fluctuations from year to year. There was a substantial increase in the currency reserve in four years - mainly from

³³ Based on information given by PUXBAUM (p. 10).

³⁴ Cf. REIK, p. 34.

BALANCE OF PAYMENTS OF AUSTRIA: 1923-1929, 1934
(Million Schilling)

Rudolf Nöfel

Year	Capital balance	Capital movements		Current balance	Goods	Services	Interest and dividends ^a	Gold
		Long term ^a	Short-term ^b					
1923	900*	460*	440*	-900*	-1,147.2*	290*	-50*	-5.6
1924	1,130*	160*	970*	-1,130*	-1,484.1	460*	-100*	-1.8
1925	680*	145	535	-680*	-912.0	340*	-100*	-7.2
1926	850*	150	700*	-850*	-1,055.7	340*	-90	-44.0
1927	760*	338	422*	-760*	-1,035.5	430*	-100	-56.1
1928	730*	56	674*	-730*	-1,025.1	440*	-100	-42.3
1929	820*	97	723*	-820*	-1,070.9	400*	-120*	-27.2
1934	180*	-135	315*	-180*	-291.2	195*	-80*	-2.9

* Estimate.

^a Amortization service of long-term debt is shown with interest and dividends except for 1934.^b The capital balance and short-term capital movements were obtained as residuals and thus include "errors and omissions".

GROSS DOMESTIC PRODUCT, FIXED CAPITAL
FORMATION AND INDUSTRIAL OUTPUT IN AUSTRIA:
1924-1929

(Million Schilling ^aand - in italics - annual percentage rates of change)

	At current prices			At constant prices ^a		
	Gross domestic product	Fixed capital formation	Industrial output ^b	Gross domestic product	Fixed capital formation	Industrial output ^b
Totals in 1924	9,257	628	4,166	9,565	627	3,555
Change: 1925	1,039	214	534	646	154	401
	<i>11.2</i>	<i>34.1</i>	<i>12.8</i>	<i>6.8</i>	<i>24.6</i>	<i>9.8</i>
1926	-13	115	96	167	106	97
	<i>-0.1</i>	<i>13.7</i>	<i>2.0</i>	<i>1.6</i>	<i>13.5</i>	<i>2.2</i>
1927	827	-65	142	319	-45	78
	<i>8.0</i>	<i>-6.8</i>	<i>3.0</i>	<i>3.1</i>	<i>-5.1</i>	<i>1.7</i>
1928	568	245	438	497	193	361
	<i>5.1</i>	<i>27.5</i>	<i>8.9</i>	<i>4.6</i>	<i>22.9</i>	<i>7.7</i>
1929	409	133	243	164	103	139
	<i>3.5</i>	<i>11.7</i>	<i>4.5</i>	<i>1.5</i>	<i>10.0</i>	<i>2.8</i>
Totals in 1929	12,087	1,270	5,619	11,358	1,138	5,185

^a Prices of 1937.

^b Includes: mining and manufacturing; electricity, gas, water; small scale industry; construction.

conversion of foreign-credit intakes into national currency. Changes in the volume of rediscounted commercial paper were, by contrast, most modest on balance in the four years (an increase by altogether 11 per cent) — with most erratic year-to-year variations: a sharp fall in 1926 and an even sharper increase in 1928.

The contribution of foreign finance to domestic expansion was important in the 1925-1928 period. The surplus on capital accounts in these four years financed 66 per cent of the combined deficit from surplus imports in merchandise trade, from the passive balance on interest and dividend accounts, and from gold imports (other 34 per cent were covered by the surplus on services accounts). The share of long-term funds was modest in the total (23 per cent) but short-term foreign finance was frequently used for long-term investment purposes. This was widespread practice also in industrial finance and it much increased risks and uncertainty to both financial intermediaries and ultimate borrowers.

The massive inflow in 1925-1928 of readily available foreign funds in combination with firmly deflationary monetary and budgetary policies produced a powerful investment boom in conditions of much less fast expanding domestic demand and even less responsive export markets. Fixed capital investment in the four years expanded by 81 per cent at current prices and by 65 per cent at constant prices in contrast to an increase, at current prices, by 27 per cent for consumption and by 12 per cent for exports. The rise in total industrial output was, in these conditions, by 42 per cent at constant prices but only by 29 per cent at current prices. Investment scissors, in fact, had widely opened for industrial producers: they had to face an about 10 per cent rise in investment costs against a 9 per cent fall in industrial sales prices.

The concentration process of the grossly inflated banking system of Austria, which set in with armistice and peace treaty and which came to a temporary standstill in the years of inflation only, continued virtually without interruption throughout the expansionary period and finally went further than in any other western country. The first of the ten major Vienna banks of the prewar period to find an inglorious end was Allgemeine Depositenbank in 1924: the size of its losses prevented its initially offered rescue through solidary guarantee by major Vienna banks and eventually it was reduced simply to bankruptcy.

The leading role in the concentration process was assumed in the next phase by the two then principal majors of Vienna banking, Creditanstalt and Bodenkreditanstalt. Creditanstalt merged the Austrian business of the Anglo-Austrian Bank, the formerly Vienna-based and then London-based establishment, in July 1926, and it settled by the transfer of a major package of newly issued own shares. Bodenkreditanstalt earlier that year bought up one of the formerly major Vienna banks, Allgemeine Verkehrsbank, concurrently on cheap offer and, later that year, Unionbank, also a former major on cheap offer, both with substantial industrial holdings; and, subsequently, it merged both banks and, thereby, importantly extended its industrial domain.

The government, on its part, established "a new tradition" of State support to the credit system — with temporary moratoria, government guarantees, massive subsidies, special legislation, etc. in two cases of default which threatened with severe repercussions on the anyhow weak propensity to save of the saving public — after its experience with cruel abuse suffered through nearly ten years of uncontrolled inflation. Centralbank der deutschen Sparkassen (Banking Centre of German Saving Banks) which served as a clearing centre for such saving banks, cooperatives, etc., declared losses in July 1926 to the total of 62.5 million Schilling — to a major part originating from speculative mismanagement. Postsparkassa (Postal Saving Bank), the reputed clearing and deposit centre of long standing, in turn, became insolvent that year, with total losses of

110 million Schilling — mainly from strictly illicit transactions. Centralbank was liquidated and Postsparkassa reorganized but depositors were fully reimbursed from a specially created deposit insurance fund (financed through a special levy on interest income on deposit accounts).³⁵

Banking firms which mushroomed in the inflationary period also were forced out of business in the four subsequent years of stabilization. The number of joint-stock banks which rose from 34 in 1919 to 76 in 1923, fell again to 40 in 1927; for other banking firms, the inflationary rise was from 146 to 282, and the fall after stabilization to 152.³⁶

The process of banking concentration was closely linked to a process of industrial concentration: "industrial enterprises were merged because they belonged to the same banking concern and banks merged in order to merge their industrial concerns".³⁷ The most important industrial merger of this period was in the engineering sector between three major motor-car and aircraft companies: Oesterreichische Daimler Motoren A.G., Wien, Puchwerke A.G., and Oesterreichische Flugzeugfabrik A.G., Wiener Neustadt, into one single firm Austro-Daimler-Puchwerke A.G., Wien with plants in Wiener Neustadt and Graz.

The four major banks still in business after five years of stabilization, namely Creditanstalt, Bodenkreditanstalt, Bankverein and Escompte-Gesellschaft, saw their business importantly expanding and regained, partly at the price of the series of mergers, some of the ground lost through war and inflation, peace-treaty obligations and misplaced policies. The total of their consolidated balance-sheet advanced in three years, from end-1925 to end-1928, by 78 per cent and recovered to close to two-thirds (61 per cent) of its prewar level. The post of participations, among assets, increased by 54 per cent and that of debtors by 71 per cent; the increase among liabilities was 45 per cent for share capital and reserves and 84 per cent for deposits, creditors, and acceptances. The cover ratio further deteriorated (from 17.0 per cent at end-1925 to 13.5 per cent at end-1928) but liquidity improved (rise in the ratio from 14.7 to 20.0 per cent) and there was a decrease in operating costs in relation to operating capital (from 4.6 to 3.3 per cent).³⁸

³⁵ Acts of 30 November 1926 and of 29 December 1926, and Third Amendment to Central Bank Law (*Bundesgesetzblatt*, No. 348).

³⁶ *Statistisches Handbuch der Republik Österreich*, vol. III (1922), pp. 43-44; vol. V (1924), pp. 49-50, 81; vol. IX (1928), pp. 82, 127.

³⁷ K. MEITHNER, *Sonderhefte der Betriebswirtschaftlichen Blätter*, no. 3, "Zur neueren Entwicklung des österreichischen Bankwesens", p. 10.

³⁸ The prevailing view in those days was that banking concentration reached its concluding stages and that Austrian banking had overcome its structural crisis. As the editor of *Der Oesterreichische Volkswirt*, the widely read economic weekly has put it: "Austrian banking is sound again.

The Collapse of Bodenkreditanstalt

The concentration of the banking system reached a further dramatic stage with the collapse of Bodenkreditanstalt. The disaster of this long standing banking establishment of lustrous reputation became unavoidable for a variety of reasons. The dismemberment of Austria-Hungary and burdensome peace-treaty obligations affected this bank most severely on account of its substantial debt to foreign creditors which had to be repaid fully revalorized. The size and diversification of its concern network also brought heavy losses for the fact that its greater part fell outside Austria's postwar territory. Difficulties were further compounded by its unusually close ties to the ruling governmental party and its consequent extreme exposure, in case of political unrest, to depositors' distrust. The contraction on international capital markets again affected this bank most severely: not only was it unable to ensure long-term or short-term refinancing of its industrial credits but capital flight, with renewed political unrest in the country, deprived it of important parts of its borrowed capital resources. Industrial stagnation in these conditions caused extreme difficulties because on a weak and weakening financial basis, it had to support industrial firms of large size and large capacity output³⁹ — which meant that more and more of its outstanding credits became frozen and that it had to take into portfolio more and more of the shares of indebted firms.⁴⁰

The few banks which survived after ineffable losses again proceed with reconstruction of their own and of the capital market. ... Those banks that still exist are adapted to the size of today's Austria" (W. FEDERN, cf. *Zehn Jahre Nachfolgestaaten*, "Die österreichischen Banken", p. 57). The same view was held by the repeatedly quoted expert on Central European banking: "The process of rationalization of the Austrian banking system can at this stage be considered as completed and remaining banks are assured of the possibility of further appropriate expansion" (Cf. PUXBAUM, p. 14).

³⁹ Of the 600 million Schilling under the item "debtors" in the accounts of Bodenkreditanstalt, 200 million Schilling had to be considered as frozen. The greatest debtor, Steyr Werke A.G., Wien alone owed 80 million Schilling which was nearly as much as the reported total of the bank's share capital and reserves (cf. AUSCH, p. 314). This and most other items of information given in Schillings of the period referred to, the Schilling of 1925, were, regrettably, translated by Ausch, in his highly polemical but most knowledgeable commentary, into post-Second-World-War Schillings — assuming one interwar Schilling to represent 20 postwar Schilling).

⁴⁰ Bodenkreditanstalt participated, among others, in three major industrial concerns: Steyr Werke A.G., Wien; A.G. für Mineralölindustrie, vormalis David Fanto (under the holding Sociétés Réunies de Pétroles Fanto S.A., Geneva); and Österreichische Textilwerke A.G. vormalis Isaak Mautner und Sohn, Prague-Smichov. Further substantial holdings extended to the electric power industry, the paper and printing industry, the alcohol industry, breweries, and transports.

Bodenkreditanstalt in these conditions had to rely increasingly on refinancing with the National Bank which, as a rule, was ready to grant rediscount facilities to banks up to the total of their share capital and open reserves and which, therefore, issued a stern warning, in May 1929, concerning the excessive height of Bodenkreditanstalt's rediscount. The mass of this debt, after unsuccessful attempts on the part of the bank, either to reduce the volume of its industrial credits or to sell off some of its industrial participations, reached 132 million Schilling (as compared with a total of 89 million Schilling for share capital and open reserves) which induced the National Bank to refuse the bank any further credit. Bodenkreditanstalt, in consequence, was obliged to inform the newly nominated government, on 5 October 1929, that "it will have to close its counters - unless support arrives from whatever side."

Merger with Creditanstalt was, at this stage, considered as the most appropriate solution, and it was, during a dramatic weekend, put forward by the government and imposed upon the merging bank's utterly reluctant chairman. The merger scheme, agreed upon by government and Creditanstalt, had three distinct constituents. Shareholders of Bodenkreditanstalt had to agree to a loss of 78 million Schilling. The National Bank had to agree to a *de facto* moratorium on a bill portfolio of 100-132 million Schilling. Creditanstalt, in order to digest this merger, had to raise new share capital to the amount of 40 million Schilling (of which an important part, namely, 15 million Schilling, was subscribed by publicly owned Credit-Institut für öffentliche Unternehmungen und Arbeiten).

The merger agreement thus had its heavy implications for all directly concerned, for shareholders of Bodenkreditanstalt, for the National Bank, and for Creditanstalt. Shareholders of Bodenkreditanstalt had to accept a loss in the nominal value of their holdings in a proportion of 5 to 1 — by receiving one share of Creditanstalt to the nominal value of 40 Schilling in exchange for four shares of Bodenkreditanstalt to a nominal value of 50 Schilling each, i.e. a total nominal value of 200 Schilling.

The National Bank, in turn, had to see an important part of its bill portfolio immobilized — for many months and years to come.

Creditanstalt, on its part, received a poisoned gift — a nominal capital gain of 78 million Schilling: against a capital commitment of 11 million Schilling (the book value of 275,000 own shares given to shareholders of Bodenkreditanstalt) it gained control over the merged bank's total share capital to a book value of 55 million Schilling and its open reserves of 34 million Schilling; and with it responsibility for all assets and liabilities of Bodenkreditanstalt.

The Creditanstalt Crisis

The Creditanstalt, through its merger with Bodenkreditanstalt, became "Monarch of Austrian industry"⁴¹ and appeared to operate normally for more than one year, supported by an infusion of new capital through Kontinentale Gesellschaft für Bank und Industriewerte. A first sign of difficulties was the unusual delay in calling its Annual General Assembly. Thus it was in an apparently completely untroubled atmosphere that the government issued, in the night from 11 to 12 May 1931, an official announcement according to which establishment of Creditanstalt's balance sheet for business year 1930 resulted in disclosure of extraordinary losses to the total amount of 140 million Schilling. "These losses derive from merger with Bodenkreditanstalt, the fall in the value of the securities portfolio, and unavoidable write-offs with debtors". Governmental action became necessary "in order to protect the whole of Austria's economy timely and effectively from uncontrollable consequences that would follow from the breakdown of Creditanstalt".⁴²

Creditanstalt had indeed a key role in the industrial finances of Austria. About 60 per cent of Austrian industry at the time of crisis belonged, according to the General Manager of the Austrian National Bank, to the concern network of Creditanstalt.⁴³ The share was 58 per cent in relation to the total of industrial holdings by the three remaining leading Austrian banks (Creditanstalt, Escompte-Gesellschaft, Bankverein) — with holdings concentrated in mining, metallurgy, engineering; electricity; wood, paper, printing; textiles; and the food and alcohol industries.⁴⁴ The ministry of Finance, nevertheless, foresaw comparatively limited consequences only to Creditanstalt's collapse — considering that the share capital of industries affected would be nearer to 13.75 per cent of the total share capital than to a possible upper limit of 68.75 per cent.⁴⁵ However

⁴¹ Expression used by a sharp observer and lucid chronicler of economic events in those days' Austria (*Wirtschaftstatisches Jahrbuch*, 1929/30, p. 445).

⁴² Cf. *Notenbank, 1816-1966*, pp. 430-431.

⁴³ Information received from Dr. Johann Kernbauer.

⁴⁴ Share capital taken over from Bodenkreditanstalt accounted for 46 per cent in the share portfolio of Creditanstalt (1929): this part was particularly important for coal mines, the mineral-oil industry, and steel works (91 per cent), the paper and printing industry (72 per cent), and for textiles (52 per cent) — but still of considerable weight for electricity (36 per cent), engineering (34 per cent), construction and building materials (29 per cent) and for the food and alcohol industries (28 per cent).

⁴⁵ The underlying investigation of the Ministry found, on the one hand, that firms representing 13.75 per cent of the total share capital were so deeply in debt with the bank that they would go down with it; it established, on the other hand, that 68.75 per cent was doing its business through the bank (Information given in a private paper by Dr. Dieter Stiefel of the University of Economics of Vienna).

INDUSTRIAL CONCERN NETWORK OF LEADING
AUSTRIAN BANKS: 1930

Industries	Österreichische Creditanstalt		Niederösterreichische Escompte- Gesellschaft		Wiener Bankverein	
	Number of corporations	Share in Million Schilling	Number of corporations	Share in Million Schilling	Number of corporations	Share in Million Schilling
Mining, steel, etc. furnaces	7	66.17	2	62.00	1	2.50
Metallurgy, engineering	14	87.55	5	29.65	3	3.10
Electricity, electric engineering	6	62.60*	4	30.88	4	31.63*
Chemicals	3	8.11	5	34.70	2	16.45
Textiles	8	30.58	1	0.80	3	6.80
Food, drinks	11	91.61	2	9.25	2	32.35
Building materials, glass, porcelain, etc.	5	22.07	2	3.03	2	2.25
Wood, paper, printing	8	45.25	1	4.00	1	12.00
Other industries	2	1.10	8	11.20	1	10.40
All industries	64	415.04	30	186.11	19	117.48

* The Siemens-Schuckert Works were controlled jointly by Österreichische Creditanstalt and Wiener Bankverein: the share capital of 35 Million Schilling was assumed to be equally distributed between the two banks.

this may be, the Austrian government feared the breakdown of the Austrian economy with the collapse of the bank and raced to its financial rescue, first with limited and, in the final stage, with comprehensive guarantees.

The government sponsored First Rescue Scheme of 12 May 1931 was based, in accordance with the information received from Creditanstalt, on the assumption of total losses amounting to 140 million Schilling. The First Creditanstalt Act of 14 May 1931 which created the legal basis for implementation of the scheme foresaw, accordingly, coverage of these losses by direct contribution from the State, the National Bank and Rothschilds, the principal shareholders, and by a reduction of the share capital and the liquidation of the capital reserve. The Act further made provisions for the reorganization of the bank by the issue of new shares to the amount of 89.4 million Schilling in order to refloat the share capital from its reduced total of 88.1 million Schilling to 177.5 million Schilling.

The costs of the whole operation thus were 100 million Schilling for the State (41.4 million for losses and 58.6 million for new shares); they were 30 million Schilling for both the National Bank (12.4 million for losses and 17.6

CONTRIBUTIONS OF THE STATE, THE NATIONAL BANK
AND SHAREHOLDERS TO THE FIRST CREDITANSTALT
RESCUE SCHEME OF 12 MAY 1931
(Million Schilling)

	Coverage of Losses	Issue of Share capital	Total contribution
State	41.4	58.6	100.0
National Bank	12.4	17.6	30.0
Shareholders	85.8	13.2	99.0
<i>of which:</i>			
Direct contribution	9.3 ^a	13.2 ^a	22.5 ^a
Reduction of share capital	36.5 ^a	—	36.5 ^a
Liquidation of capital reserve	40.0	—	40.0
All contributors	139.6	89.4	229.0

^a The total contribution of Rothschilds added up to 30 million Schilling; 9.3 million as direct contribution to coverage of losses; 7.5 million as part in the reduction of share capital; and 13.2 million as subscription to new share issue.

million for new shares) and Rothschilds (16.8 million for losses and 13.2 million for new shares); and 69 million for other shareholders (all for coverage of losses). The State and the National Bank, together with some publicly owned credit establishments, thus became through these operations, marginally, *de facto* majority shareholders of the bank.⁴⁶

Further dispositions of the First Creditanstalt Act provided for required changes in the statutes of the National Bank and authorized the Minister of Finance to contract a loan to the amount of 150 million Schilling.

Expected results of the First Rescue Scheme, however, failed to materialize and the climate of risks and crisis continued to prevail. The bank, in consequence, lost in two weeks deposits of about 500 million Schilling — of which about 200 million from foreign and about 300 million from inland accounts.

The lender of last resort was, in these conditions, again the National Bank whose bill portfolio increased inordinately — parallel with a drastic reduction in gold and foreign exchange holdings.

⁴⁶ Cf. *Wirtschaftsstatistisches Jahrbuch*, 1930/31, p. 413. New shares acquired by the State and the National Bank to the amount of 76.20 million Schilling together with shares in the possession of Credit-Institut für öffentliche Unternehmungen und Arbeiten to the amount of 11.25 million Schilling and of the Postsparkassa (Postal Saving Bank) to the amount of 1.50 million Schilling added up to 88.95 million Schilling which represented a majority of 0.40 million Schilling in the total share capital of 177.5 million Schilling.

CURRENCY CIRCULATION AND ASSETS
OF THE AUSTRIAN NATIONAL BANK: 1930-1937
(*Million Schilling*)

	Note circulation and sight liabilities	Bills, warrants, loans	Gold, foreign exchange	State debt	Other assets
31 December 1930	1,182.77	148.01	929.83	101.21	323.77
Change: 1931	128.63	759.76	-612.27	-5.57	-10.57
1932	-179.19	-528.32	-128.97	567.33	-12.63
1933	-37.56	-104.31	13.14	-38.53	-57.66
1934	23.31	-38.80	75.72	—	-110.11
31 December 1934	1,117.96	236.35	277.45	624.44	132.80
Change: 1935	73.98	-10.86	77.51	—	9.60
1936	-43.85	-17.54	-13.02	-4.29	-9.85
1937	48.40	-20.00	62.42	-8.38	-7.16
31 December 1937	1,196.48	187.95	404.36	611.78	145.09

The first rescue operation was, therefore, to be followed promptly by a second rescue operation. The Second Creditanstalt Act of 28 May 1931, accordingly, authorized the Minister of Finance "to endorse State guarantee as guarantor and payer for loans granted for reconstruction and current business of Creditanstalt". Finance was to be provided by issue of treasury bonds.

The measure was conceived as a barrage to the outflow of funds from Creditanstalt but also fulfilled a preliminary condition for negotiations with foreign creditors.⁴⁷

The government subsequently, on 25 June 1931, extended a general State guarantee to all liabilities of Creditanstalt; foreign creditors' representatives, on condition of this guarantee, accorded, on their part, already earlier a moratorium of two years on Creditanstalt's foreign liabilities (on 16 June 1931).

Meanwhile the volume of the bankruptcy had swollen over and above the originally assumed 140 million Schilling by further about 1,200 million Schilling — of which about 500 million Schilling owed to foreign creditors and 700 million to inland creditors.

⁴⁷ *Ibid.*, p. 415. The government, at this stage, was unwilling to face either moratorium on foreign credits or direct compensating arrangements between the foreign creditors and debtors. This left as the only alternative agreements with foreign creditors on rescue credits in foreign exchange — which considerably strengthened the negotiating position of their representatives.

ASSETS AND LIABILITIES OF ÖSTERREICHISCHE CREDITANSTALT-WIENER BANKVEREIN
BEFORE AND AFTER THE TAKEOVERS OF 1929 AND 1934: 1928-1936

(Million Schilling)

	Total of balance sheet	Liquid assets	Debtors	Securities, participations	Other assets ^a	Share capital, reserves	Deposits, creditors, acceptances	Other liabilities ^b
<i>Creditanstalt</i>								
31 December 1928	1 199	162	915	111	11	119	1 069	11
1928-1930: ±	+685	-41	+467	+62	+197 ^d	+58	+608	+19
1930-1932: ±	-1 249	-64	-933	-125	-127	-35	-1 253	+39
1932-1934: ±	+164	+68	+48	+33	+15	+25	+134	+5
1934-1936: ±	-103	+17	-106	-2	-12	-64	-33	-6
31 December 1936	696	142	391	79	84	103	525	68
<i>Banks involved in takeovers or mergers^c</i>								
31 December 1928	1 833	361	1 223	194	55	233	1 543	57
1928-1930: ±	-720	-171	-469	-53	-27	-54	-620	-46
1930-1932: ±	-347	-148	-152	-32	-15	-116	-220	-7
1932-1934: ±	-467	-37	-371	-48	-11	-53	-414	-4
1934-1936: ±	-36	+2	-35	-3	—	—	-36	—
31 December 1936	263	7	196	58	2	10	253	—

Note: See table "Assets and liabilities of four leading Austrian banks and their successors: 1913-1936" (p. 154).

^a Includes mortgage, communal and housing loans.

^b Includes mortgage, communal and housing bonds.

^c For 1928-1932 - Creditanstalt; for 1934-1936 - Creditanstalt-Bankverein.

^d Including subsidies, related to rescue operations.

^e Excluding Bodenkreditanstalt from 1930; Bankverein and Escompte-Gesellschaft from 1934; for 1934-1936 - Österreichische Industriekredit Aktiengesellschaft only.

Bankruptcy of Creditanstalt, however, was finally avoided by massive intervention with liquid funds on the part of the National Bank, the government's general guarantee, foreign creditors' two-year moratorium, and two subsequent major financial operations involving, on the one hand, government and the National Bank and, on the other hand, government and foreign creditors' representatives.⁴⁸

After all these rescue operations in favour of Creditanstalt, the long process of concentration, bankruptcies and mergers in Austrian banking, nevertheless, remained still uncompleted. The two major Vienna banks, which outlasted the Creditanstalt-Bodenkreditanstalt merger, namely Bankverein and Escompte-Gesellschaft, in turn, became illiquid and suffered heavy losses in the years of crisis. These two banks again could remain in business on account exclusively of massive support provided by the government and the National Bank through Gesellschaft für Revision und treuhändige Verwaltung (Corporation for Accounting Control and Fiduciary Management) which was established with the special purpose of serving as an organ of banking reorganization.

The stage of consolidation and durable rehabilitation was, however, reached in 1934 by officially sponsored and supported arrangements between the three remaining major Vienna banks. Creditanstalt and Bankverein merged in the shareholders' assembly of 25 May 1934 under the common firm Österreichische Creditanstalt-Wiener Bankverein. The agreement with Escompte-Gesellschaft of the same date arranged for the transfer of assets and liabilities in this bank's current banking business to Creditanstalt-Bankverein, the single remaining major Vienna bank (while specially established Österreichische Industriekredit A.G., Wien took over all other assets and liabilities of thus liquidated Escompte-Gesellschaft). The long process of concentration and reorganization of major Vienna banks which reduced their number from pre-war ten and pre-crisis four to one single unit, thus could be considered as completed and, after a short period of trial as to the viability of the new arrangements, the general government guarantee for the single major bank's liabilities also could be lifted (on 20 July 1934).⁴⁹

⁴⁸ Cf. *Notenbank, 1816-1966*, p. 463, "Agreement of 18 August 1932 between the Government and the National Bank"; p. 468, "Understanding of 11 January 1933 with Foreign Creditors of Creditanstalt".

⁴⁹ For a detailed account of the Creditanstalt legislation see *Ein Jahrhundert*, pp. 209-214, 224, 355-357, in particular concerning the First, Second, Ninth and Tenth Creditanstalt Acts (*Bundesgesetzblatt*, no. 136, 1931, no. 143, 1931, no. 254, 1932, and no. 157, 1934). Also see *Notenbank, 1816-1966*, pp. 432, 434, 439-440, 445, 458-459.

International and Domestic Repercussions

The Creditanstalt crisis, which had its deep roots in a long series of international and national maladjustments, gave further powerful impetus, by its very occurrence, to drastic contraction of international credit, payments, trade, and domestic production, investment, employment, incomes and consumption. Repercussions were immediate in neighbouring Germany and struck very fast and with equal ferocity southern and eastern neighbours. The vicious circle of bank failures, credit withdrawals, capital flight, contracting current and capital balances swayed back to the United States and rebounded with increased vigour upon a number of European and overseas countries.

Austria, and the Creditanstalt, were struck by heavy blows repeatedly, from without and within, by this sorrowing sequence of events. Official announcement of Creditanstalt's crisis immediately set off a violent wave of capital withdrawals by foreign creditors which irresistibly swept away the fragile barriers of the first rescue operation. Domestic depositors reacted in the same sense — to closely corresponding effect. The second rescue operation proved equally ineffective at stopping the hemorrhage of foreign exchange. The Schilling went down on foreign exchange markets (at Zurich by 17 per cent on the average of 1932) but was not officially devalued before 24 April 1934. Capital flight continued unabated up to the introduction of foreign exchange controls and persisted, in spite of controls, although at a much slower pace. The National Bank lost 501 million Schilling of gold and foreign exchange in the five months between the outbreak of the crisis and the establishment of foreign exchange control; and with them 200 million Schilling of the receipts from loans by the Bank of England and the Bank for International Settlements. The currency reserve of the National Bank, in spite of such supporting foreign loans, fell by 742.2 million Schilling from 929.8 million Schilling at end-1930 to a mere 188.6 million Schilling at the low point of end-1932.

The coincident contraction and immobilization of the domestic financial sector was of stupendous proportions. The National Bank was loaded with "financial" bills of 691 million Schilling from Creditanstalt (as of 18 August 1932) and had no margin of manoeuvre left for normal commercial transactions. The National Bank's portfolio of bills, warrants and loans expanded in 1931 by 760 million Schilling from 148 million Schilling at end-1930 to 908 million Schilling at end-1931 and would have further expanded by 33 million Schilling in 1932 had the State not taken over 571 million Schilling of defaulting and frozen Creditanstalt bills and converted them into state debt of long amortization periods. Creditanstalt was thus rescued from bankruptcy and so were, by corresponding action, the two other remaining major Vienna banks — but the

combined balance-sheet of the three banks at end-1932 showed a decline in two years by more than 50 per cent for debtors, securities, participations, by 57 per cent for deposits, creditors, acceptances, and a deterioration of the liquidity ratio from very low 12.0 per cent to even lower 8.8 per cent.

The strong deflationary impact of these severely restrictive monetary and credit policies was greatly reinforced by equally restrictive budgetary and public loan policies. The federal budget for both 1932 and 1933 was scheduled to be balanced — with heavy cuts in particular in public works and investment expenditure. Tax receipts fell in both 1932 and 1933 — in spite of important increases in direct and indirect taxation. Substantial receipts in 1933 from major

GROSS DOMESTIC PRODUCT, FIXED CAPITAL FORMATION
AND INDUSTRIAL OUTPUT IN AUSTRIA: 1929-1937
(Million Schilling and - in italics - annual percentage rates of change)

	At current prices			At constant prices ^a		
	Gross domestic product	Fixed capital formation	Industrial output ^b	Gross domestic product	Fixed capital formation	Industrial output ^b
Totals in 1929	12,087	1,270	5,619	11,358	1,138	5,185
Change: 1930	-527	-182	-433	-316	-131	-322
	<i>-4.4</i>	<i>-14.3</i>	<i>-7.7</i>	<i>-2.8</i>	<i>-11.5</i>	<i>-6.2</i>
1931	-1,200	-211	-754	-888	-194	-523
	<i>-10.4</i>	<i>-19.4</i>	<i>-14.5</i>	<i>-8.0</i>	<i>-19.3</i>	<i>-10.8</i>
1932	-810	-294	-569	-1,047	-269	-565
	<i>-7.8</i>	<i>-33.5</i>	<i>-12.8</i>	<i>-10.3</i>	<i>-33.1</i>	<i>-13.0</i>
1933	-530	-110	-350	-304	-85	-243
	<i>-5.5</i>	<i>-18.7</i>	<i>-9.1</i>	<i>-3.3</i>	<i>-15.6</i>	<i>-6.4</i>
Totals in 1933	9,020	473	3,513	8,803	459	3,532
Change: 1934	-40	38	116	72	40	120
	<i>-0.4</i>	<i>8.0</i>	<i>3.3</i>	<i>0.8</i>	<i>8.7</i>	<i>3.4</i>
1935	160	60	128	181	67	146
	<i>-1.8</i>	<i>11.7</i>	<i>3.5</i>	<i>2.0</i>	<i>13.4</i>	<i>4.0</i>
1936	179	79	57	265	82	64
	<i>2.0</i>	<i>13.8</i>	<i>1.5</i>	<i>2.9</i>	<i>14.5</i>	<i>1.7</i>
1937	503	71	314	501	73	266
	<i>5.4</i>	<i>10.9</i>	<i>8.2</i>	<i>5.4</i>	<i>11.3</i>	<i>6.9</i>
Totals in 1937	9,822	721	4,128	9,822	721	4,128

^a Prices of 1937.

^b Includes: mining and manufacturing; electricity, gas, water; small-scale industry; construction.

foreign and domestic loan issues were used overwhelmingly for settlement of outstanding debt and to a minor part only for investment purposes.⁵⁰

The impact of financial contraction and immobilization of such proportions was disastrous on the real sector. The decline between the crest of the upswing in 1929 and the trough of the crisis in 1933 was 22 per cent, at comparable prices, for gross domestic product, 32 per cent for industrial production, and 60 per cent for gross fixed capital formation. The fall, of course, was even more pronounced at current prices: 25 per cent for gross domestic product, 37 per cent for industrial output, and 63 per cent for investment. Export receipts reached their lowest level one year earlier — compressed by 68 per cent in three years. Consumption contracted with some lag behind gross domestic product — to its lowest level in 1934 which meant a reduction, in comparison with 1929, by 23 per cent at current prices and 19 per cent at comparable prices. Unemployment rose to and remained on unprecedented levels approaching one half million (450,000 on the average of 1932) which meant 29.0 per cent of the labour force, or, to put it differently, for each ten men in the workshop, four men on the street.⁵¹

The Rehabilitation of Banking and Industry

Total losses of Creditanstalt, including those of merged Bankverein and Escompte-Gesellschaft (but excluding losses of Bodenkreditanstalt's shareholders), reached 1,410 million Schilling in the four years of crisis. The maintenance of Creditanstalt and the two merged banks in functioning order required further contributions in the form of subscriptions to newly issued share capital to the amount of 140 million Schilling. The total of contributions to rescue operations through loan and cash subsidies and payment by the State, the National Bank and shareholders thus added up to 1,550 million Schilling. Participation of the State in these financial operations was around 70 per cent, that of the National Bank around 5 per cent and of shareholders close to 25 per cent.

⁵⁰ The Lausanne Loan of August 1933, issued after two years of negotiations yielded 237 million Schilling at the original parity rate and was used to a major part for debt service of earlier contracted foreign loans (190 million Schilling) and the remainder for the reduction of short-term State debt with the National Bank. The yield of the domestically issued 4% Lottery Loan of October 1933 was spent on servicing domestic debt to a lesser part and preponderantly on covering current State budgetary and investment expenditure. (Cf. *Notenbank, 1916-1966*, p. 470; Cf. *Ein Jahrhundert*, p. 220).

⁵¹ For a comparison with other European countries see I. SVENNILSON, *Growth and stagnation in the European Economy* (United Nations Economic Commission for Europe, Geneva, 1954, U.N. Publication, Sales No: 1954.II.E.3), p. 31.

The State in the arrangement with the National Bank of 18 August 1932 took over defaulting financial bills of Creditanstalt from the National Bank's portfolio to a total amount of 571 million Schilling and accepted preponderantly long-term debt to the same amount towards the bank of issue. The State further gave treasury bills as a collateral for Creditanstalt's "agreement" engagements. Apart from its contributions to the coverage of Creditanstalt's losses in 1931 and to those of Bankverein (a combined total of 72.5 million Schilling), it undertook in 1933 to reimburse, through Gesellschaft für Revision und treuhändige Verwaltung, in long-term instalments foreign creditor's "live claims" against Creditanstalt, i.e. that part of Creditanstalt's foreign debt for which no cover was found in the bank's assets. State contributions to new share issues, directly or through Gesellschaft für Revision, added up to 86 million Schilling — including its initial subscription of 58.6 million Schilling to Creditanstalt's share capital in 1931 which subsequently was blown up from the part of other shareholders to 71 million Schilling (in 1932).

The burden and the role of the National Bank in these rescue operations was incomparably more important than its 5 per cent share in the total of contributions to the compensation of losses and the issue of new shares would indicate. The initial weight of Creditanstalt's collapse was sustained exclusively by the National Bank — at the price of loading its commercial portfolio, by the year's end, with 760 million Schilling of Creditanstalt's and other insolvent banks' frozen bills and disbursing 612 million Schilling (66 per cent) of its currency reserve. The National Bank's effective participation and sacrifice was of no lesser weight in the later phases of the rescue process. The total of contributions by surrendering old shares or subscribing new shares reached 41 million Schilling in 1932 and 1933.⁵² The retention in its portfolio of defaulting Creditanstalt bills to the amount of 120 million Schilling and the conversion of such bills into long-term State debt, on the other hand, heavily mortgaged for years the whole of its business. "The load of this massive State debt" — in the wording of a retrospective policy memorandum of postwar management — "implied for the Bank not only narrow limits to its lending policy but, moreover, a vital weakening of resilience in all its business activity".⁵³ The National Bank by these transactions was, in fact, transformed from a smoothly functioning link of the international gold-exchange-standard system into a government-

⁵² Costs to the National Bank of the Creditanstalt's first rescue in 1931 were 30 million Schilling. The Bank's total contributions to this type of operations in the years 1923-1938 amounted to 168 million Schilling.

⁵³ Cf. *Denkschrift der Oesterreichischen Nationalbank anlässlich ihres 25-jährigen Bestandes* (Vienna, 1948), p. 27.

controlled state bank of issue which became virtually paralysed by heavy lending to government and which, nevertheless, continued with its efforts, in an increasingly hostile political and economic climate, towards restoring its customary commercial and foreign-exchange business.

CONTRIBUTIONS OF THE STATE, THE NATIONAL BANK AND
SHAREHOLDERS TO THE ARRANGEMENTS CONCERNING
CREDITANSTALT'S DEBTS AND LOSSES OF 18 AUGUST 1932
(*Million Schilling*)

	Arrangements concerning frozen debt	Arrangements concerning share capital	Total
Conversion into State debt of rediscounted Creditanstalt bills	571.4 ^a	—	571.4 ^a
Treasury bills issued as collateral for 'agreement' engagements	151.3	—	151.3
Net gain from reduction of old and issue of new share capital	—	(—12.7) ^b	(—12.7)
Total contribution by State	<u>722.7</u>	<u>(—12.7)^b</u>	<u>710.0</u>
Retention in portfolio by National Bank of Creditanstalt bills	(120.0)	—	(120.0)
Contribution to reduction of share capital	15.6	1.9 ^b	17.5
Total contribution of National Bank	<u>15.6</u>	<u>1.9^b</u>	<u>17.5</u>
Contribution by other shareholders to reduction of share capital	89.9	10.8 ^b	100.7 ^c
Total of contributions	<u>828.2</u>	<u>12.7^b</u>	<u>840.9</u>

^a This debt was divided in three portions — for which debt service was arranged as follows: Federal Debt (A) — 171 million Schilling (interest to a maximum of 1% — if indispensable for payment of dividend of 6 per cent; amortization from 1946 onwards); Federal Debt (B) — 200 million Schilling (free of interest; amortization by monthly instalments of 1 million Schilling from yield of loans to be issued); Federal Debt (C) — 200 million Schilling (interest 3%; amortization from receipts of the bank-note tax and the Federal share in the Bank's net profits).

^b New ordinary shares received by the State free of charge to the value of 71 million Schilling more than compensated for the contribution of 58.3 million Schilling to the reduction of the old share capital. This net gain was financed by write-offs from other shareholders' capital.

^c Including 11.19 million Schilling of Credit Institut für öffentliche Unternehmungen und Arbeiten and 1.49 million Schilling of Postsparkassa.

DEBT SETTLEMENT ARRANGEMENTS BETWEEN AUSTRIAN
GOVERNMENT AND THE INTERNATIONAL COMMITTEE OF
CREDITANSTALT'S FOREIGN CREDITORS OF 11 JANUARY 1933, 27
APRIL 1933 AND 29 JANUARY 1936
(*Million Schilling*)

	Totals	Sources of finance	
		Assets of Creditanstalt	State debt commitments
Total of claims settled	422	210	212
Modes of settlement:			
Preferential participation in Creditanstalt's reconstituted share capital	70	70	—
Participation in newly established 'Gesco' (Monaco) holding company ^a	10	10	—
Transfer of bonds issued by newly established 'Gesco' (Monaco) holding company ^a	130	130	—
Settlement of 'live claims' by State in seven or twenty annual instalments ^b	212	—	212

^a Société Continentale de Gestion (Gesco), Monaco, which was set up with a share capital of 30 million Schilling in 1933, received foreign assets of Creditanstalt to the value of 160 million Schilling. Creditanstalt retained 20 million Schilling of the share capital and handed over shares to the value of 10 million Schilling to foreign creditors. 'Gesco' issued bonds to the value of 130 million Schilling to foreign creditors and satisfied their claims by liquidating the foreign assets received from Creditanstalt.

^b Settlement in seven years, according to the initial arrangement, would have implied a capital reduction by 33½ per cent, the twenty-year alternative full reimbursement. The final settlement of 1936 provided for payment in cash and foreign exchange of 60 million Schilling and annual payments of 2 million Schilling beginning with 1 March 1937 (which at 4½%, represented an actual value of 77.8 million Schilling). The government thus redeemed its debts from 'live claims' of 215 million Schilling (including interest accrued in the intervening years) with a settlement to the value of 137.8 million Schilling.

The agreement of 11 January 1933 arranged for the settlement of Creditanstalt's foreign debt to a total amount of 422 million Schilling. Foreign creditors were given preferential shares to a value of 70 million Schilling in Creditanstalt's reconstituted share capital. They received shares to a value of 10 million Schilling in the newly established Société Continentale de Gestion and bonds issued by this company to a value of 130 million. Final settlement of "live claims" to the amount of 212 million Schilling (and 3 million Schilling of interest) on 29 January 1936 implied a capital reduction by 36 per cent.

Creditanstalt, which after its merger with Bodenkreditanstalt in 1929, was already considered "Monarch of Austrian industry" became, in 1934, "Dual

Monarch" of both banking and industry — by its merger with the two remaining major Vienna banks, Bankverein and Escompte-Gesellschaft. But this dual monarch, Österreichische Creditanstalt-Wiener Bankverein, in spite of the extinction of competition and formally maintained continuity of the firm, was incomparably less powerful and incomparably poorer, and of a fundamentally different order, than its great predecessor.

Creditanstalt's total assets and liabilities, after absorption of three major Vienna banks and extension of its concern network to the major part of the industrial firms controlled by these banks, were still more than one third below (42 per cent lower) what they were eight years earlier — prior to the outbreak of the crisis (in 1928).

Control over the bank's assets and liabilities, moreover, was exercised for four years by two exclusive shareholders, the government and foreign creditors, and their representatives, and it was after complete reorganization of both foreign and domestic business only that managers of the bank regained some wider scope of autonomous action.

The bank in the final stages increasingly lost its international character and became a state-controlled, inward-looking, and purely national institution. Its policies, in this framework, aimed at reconstructing current business and at improving liquidity. Rehabilitation of concern industries remained an important objective. If rehabilitation was seen to be possible, the financial burden was reduced by remission of interest and capital or by the transformation of claims into participation — in combination, as a rule, with basic technical and commercial reorganization. Mergers in combination with rationalization measures thus substantially contributed to rehabilitation of Austria's petroleum, machinery, wagon, locomotive, textile and some of its other industries.

Crises and Rehabilitation in Hungary

The development of banks-to-industry relations in Hungary of the interwar period, as those of Austria, reflected the profound impact of inordinate changes in the international and domestic situation of the country's economy. Protracted and progressively accelerating inflation in the early 'twenties brought distorted price and income formation; irregular fluctuation of exchange rates; and difficult, occasional, and insufficient possibilities of financing. The subsequent currency stabilization ensured, for the later 'twenties, regular movement of exchange rates; rising influx of foreign capital; and gradually easing possibilities of domestic financing — but was followed, with restrictions on and withdrawal of foreign credits towards the turn of the 'thirties, by years of increasingly restrictive central-bank policies. The second interwar decade

(after August 1931) was throughout a period of foreign exchange management, foreign exchange premia and foreign debt moratoria which, in combination, facilitated both credit financing and autofinancing of industrial expansion and, thereby, contributed to increase rather than reduce banks' and bankers' personal and financial influence.

This extraordinary sequence of abnormal developments, heavily penalizing any stubborn routine, required, on the part of managers and executives, an unusual combination of know-how, experience and personal qualities and was conducive to the emergence and consolidation of a powerful banking-industrial establishment. The older and younger generation of banking-industrial leaders who had the benefit of possibilities and experience in the large and prosperous economic area of prewar Austria-Hungary, who had been in favoured positions to turn to account and escape damage from war-time and postwar inflation, and who had the added advantage of privileged positions, after stabilization, in contact with major financial centres, acquired and maintained firm control over the closely interpenetrated system of banking and industry.

Positions of decision, control, and influence in this well functioning hierarchy depended on a subtle combination of abilities, ownership rights, and political leverage. Only a very few, sometimes outstanding personalities, to name Ferenc Chorin, Móric Kornfeld, György Ullmann and Tibor Scitovszky only, could claim to hold positions of highest authority in this powerful organization. These very few individual positions of highest economic command, however, were sustained, and occasionally contested, by domineering blocks of shareholders, often consolidated by family or management ties, in the concerns under their control; by further tens and even hundreds of less wealthy and less powerful, but often equally distinguished banking and industrial managers and owners; and by the for those days remarkably efficient business, financial, technical, and administrative machinery of the country's whole banking-industrial complex.⁵⁴

⁵⁴ Factors accountable for banks' and bankers' rising economic power and influence in the early post-inflationary period were analysed as follows by a most authoritative contemporary observer (ISTVÁN VARGA, *Közgazdasági Szemle*, 1926, p. 573): "One factor is that banking establishments have controlling interest in a great number of industrial firms which allows them to yield massive controlling influence. The organizational arrangements for large scale industry in Hungary are anyhow of a nature which subordinates them to the management of major banks. Even greater importance attaches, however, to the fact that other sectors of the economy cannot either dispense of or replace banking establishments' general financial and marketing expertise or their foreign business connections. To all this should be added leading bankers' wealth of personal relations and great prestige and, foremost, the fact that, because of the narrowness of industrial environment and openings, personalities with inclination and abilities of industrial leadership, traditionally have ambition of banking career and often reach positions in banking management".

Inflationary Industrial Finance

Industrial finance, in the inflationary period of the first postwar years, actually depended primarily on inflationary money creation. The Hungarian monetary unit, the "Korona", which during the war and revolutions had shrunk to about 1/100 of its original value, continued to decline in the period of peace. Currency circulation, after failure of a stabilization effort in 1921, expanded at rapid rates until mid-1924: 8.0 times in 1922, 12.3 times in 1923, and still 7.1 times in 1924. The exchange rate, after some recovery in early 1921, fell unintermittently — to its lowest level at 1/18400 of the parity, in June 1924 (with a monthly average of 1/16750). The climb of the cost of living and, in particular, of wholesale prices, was even steeper.⁵⁵

Credits granted by the Bank Note Institute (Jegyintézet) benefited banking institutions and, through the banks, commerce and industry.⁵⁶ Banking institutions depended on inflationary financing in spite of high profitability of certain banking operations because of loss of value of their monetary assets, notably cash, current account credits, war-time and postwar state loans, mortgage bonds, industrial obligations and, in general, all assets defined in the inflated first Austro-Hungarian and later solely Hungarian "Korona" (crown) currency. Inflation equally annihilated the money deposits with banking institutions. In this way it was the Bank Note Institute which met the major part of credit requirements of the economy, in contrast to the prewar period, when only one fifth of short-term credits was financed by the Austro-Hungarian Bank and four fifths by own capital of banking institutions.⁵⁷

Commercial paper had indeed a major role in accelerating inflation. Increase in the item "bills, warrants, loans" in the bank of issue's balance sheet

⁵⁵ For a comprehensive account of currency and money market developments in these years see R. QUANDY, *Ungarisches Wirtschafts Jahrbuch*, 1925, pp. 188-199, "Die ungarische Krone und der Budapester Geldmarkt von 1914 bis 1925".

⁵⁶ Credits granted without valorization safeguards to banks and private-sector customers became, according to contemporary reckonings, an important factor of upswing: the part of this type of credits in relation to state note circulation rose rapidly from 10 per cent in 1921, to 50 per cent in the second half of 1922, even reaching 65 per cent in 1923. See I.T. BEREND and GY. RÁNKI, *Magyarország gazdasága az első világháború után, 1919-1929* (Hungary's economy after the First World War, 1919-1929, Budapest, 1966), p. 82, quoting: G. HEIDELBERG, *Die Wirkung der Inflation und Sanierung auf dem ungarischen Geld- und Kapitalmarkt* (Budapest, 1927), pp. 70, 105, and B. IMREH, *Az inflációs évek hitelpolitikája* (Credit policy of the inflationary period, Budapest, 1926), p. 8.

⁵⁷ See T. SZÁDECZKY-KARDOSS, *A magyarországi pénzintézetek fejlődése* (Development of Hungary's banking institutions, Budapest, 1928), pp. 42, 45-46.

CURRENCY CIRCULATION AND ASSETS OF THE BANK NOTE
INSTITUTE AND THE NATIONAL BANK
OF HUNGARY: 1920-1925
(*Million Korona*)

	Note circulation and sight liabilities	Bills, warrants, loans	Gold, foreign exchange ^a	State debt	Other assets
31 December 1920	17,536	9,575	—	—	8,480
Change: 1921	-8,098	-9,375	—	1,800	-55
1922	66,472	32,867	16	14,700	34,903
1923	855,439	530,208	8	384,500	66,059
1924	5,652,109	1,413,613	2,449,962	1,573,781	2,924,554
1925	1,287,326	-299,361	890,545	-20,559	962,276
31 December 1925	7,870,784	1,677,527	3,340,531	1,954,222	3,996,217

Note: From 1 August 1921 - Bank Note Institute; from 24 June 1924 - National Bank of Hungary. The Hungarian administration of the Austro-Hungarian Bank handed over to the Bank Note Institute on 1 August 1921, but continued to keep accounts up to and including 31 December 1921.

^a Up to 31 December 1923, calculated at original parity rates (one Kilogramme of fine gold = Korona 3,278) - without reckoning for loss in the current value of currency. Subsequently corrected for loss in value at one gold Korona = 14,960 current Korona in 1924 and 14,482 current Korona in 1925.

surpassed the increase in the item "state debt" 2.2 times in 1922, 1.4 times in 1923, and it still reached, in 1924, 90 per cent of the increase in state paper. Revolving credit in the banking system further added to the inflationary effect: new loans extended to mining and industrial corporations alone exceeded commercial credits granted by the bank of issue — 2.1 times in 1922, 2.0 times in 1923, and 3.7 times in 1924.

Banks throughout the inflationary period, in conditions of constantly booming share prices, participated importantly in raising the stock capital of enterprises belonging to their concern network. Pioneers in the field, from early 1920 onwards, were the country's biggest mining and steel companies, the Hungarian General Coal Mining Ltd., under the aegis of the Hungarian General Credit Bank, with the Salgótarján Coal Mining Ltd. and the Rimamurány-Salgótarján Steel Works Ltd., under the aegis of the Hungarian Commercial Bank of Pest. This activity was particularly intense in the course of 1923, when the banking administration granted authorization for raising capital in 970 cases, which permitted to provide capital to the value of 160 million gold crowns but

implied an increase in the number of Hungarian shares registered at the Budapest stock exchange from 29 million to 67 million.⁵⁸

There was some participation of foreign capital in banking and industrial finance in the inflationary period already.⁵⁹ Participation in the increase of share capital on the part of foreign investors provided a capital of 16.4 million gold Korona in 1923 and of 5.7 million gold Korona in 1924 to the fourteen major Budapest banking institutions and their affiliated enterprises. Shares of the Hungarian General Credit Bank were sold to French, English, American and German investors; of the Hungarian Commercial Bank of Pest to English investors; and of the other major banks again to English, American, Dutch, Italian and Swiss investors. English capital participation was important in developing or reorganizing major engineering, textile, and bauxite mining enterprises; American participation in the electric engineering industry; German participation again in textiles and in manganese ore mining. Czechoslovak and Austrian capital contributions, on the other hand, served material transfer of textile machinery from redundant plant under changed conditions in the former Monarchy's industrial centres to newly established plant, behind the protective

LOAN CAPITAL, CORPORATION-OWNED CAPITAL,
PROFITS AND LOSSES OF INDUSTRIAL AND
MINING CORPORATIONS: 1921-1925

(Million Korona)

	Total of balance sheet	Loan capital	Share capital	Reserves	Profits	Losses
31 December 1921	29,249	18,542	4,387	4,978	1,342	280
Change: 1922	89,936	69,928	5,246	8,754	6,008	-50
1923	1,491,500	1,042,085	87,104	169,164	193,147	1,507
1924	6,244,633	5,216,216	107,929	308,340	612,148	39,417
1925	16,064,792	3,405,303	6,407,155	6,264,135	-11,801	211,704
31 December 1925	23,920,110	9,752,074	6,611,821	6,755,371	800,844	252,858

⁵⁸ Cf. BEREND and RÁNKI, pp. 114-116, and cf. SZÁDECZKY-KARDOSS, pp. 43-44.

⁵⁹ One factor in attracting foreign investors was low prices in terms of foreign exchange of what could be considered as viable investments: shares of prestigious companies bought for a few dollars in the years of inflation often rose to a multiple of this price in later years of expansion (also see E. GYÖRGY, *Az infláció mérlege* (The balance of inflation, Budapest, 1932), pp. 16-22 — for comparisons of prewar and interwar share quotations in gold crowns).

wall of inflation and high tariffs, in postwar Hungary's henceforth separated customs area.⁶⁰

Mining and industrial 'enterprise, in contrast to workers', office workers', officialdom's and pensioners' indigence, prospered in the inflationary period and it was well supported, in its financial and commodity transactions, by the banking system. Profits of mining and industrial corporations, in spite of domestic and international convulsions, were high in terms of the vanishing Korona currency and permitted replenishment, over and above the rise in share capital, of the total of capital reserves: additions to reserves were 1.7 times the increase in share capital in 1922, 1.9 times in 1923, and 2.9 times in 1924 (which brought the ratio of reserves to share capital from 1.1 at end-1921 to 2.4 at end-1924).

Capital transactions of this type, in combination with expansionary credit transactions, in inflated Korona currency, greatly furthered the accumulation of capital assets in real terms, of fixed capital investments into plant and equipment and of stock investments into materials and merchandise. Manufacturing capacities, in terms of the motive power of prime movers and electric motors, increased, from end-1921, by 17 per cent to end-1923 and by 31 per cent to end-1924, and even more importantly in the mining sector.⁶¹ The stock of materials and merchandise, possibly, rose to a multiple from their low initial level in both sectors.⁶²

Financial Stabilization and Expansion

Financial reconstruction brought Hungary a long-wished-for respite after more than ten years of monetary trouble. The financial reconstruction scheme of the League of Nations was prepared and submitted by the League Secretariat and the Financial Committee to the League Council in December 1923. The League scheme was then referred to the Reparation Committee which, on

⁶⁰ Cf. SZÁDECZKY-KARDOSS, p. 59, cf. BEREND and RÁNKI, pp. 104-108, and I.T. BEREND and M. SZUHAY, *A tőkés gazdaság története Magyarorágon, 1848-1944* (History of capitalist economy in Hungary, 1848-1944, Budapest, 1978), p. 221.

⁶¹ For motive power in the manufacturing sector see *Annuaire statistique hongrois*, 1919-1922, p. 81, and 1923-1925, pp. 109-110; for necessarily conjectural comparisons of the current book value of fixed assets owned by manufacturing and mining companies, respectively, see *ibid.*, 1919-1922, p. 94, 1923-1925, p. 126, and 1926, p. 110.

⁶² Any estimate of this change is rendered extremely hazardous by uncertainties of, and important changes in, valuation practices: the increase to about 3.3 times from end-1921 to end-1925, appearing for both manufacturing and mining from the statistics of company accounts and a deflation by the wholesale price index, most likely represents an upper limit (see *Annuaire statistique hongrois*, loc. cit. and *Ungarisches Wirtschaftsjahrbuch*, 1925, p. 198, and 1926, p. 240).

acceptance by Hungary of a twenty-year schedule of reparation charges, decided, on 21 February 1924, to except specific assets from reparation guarantee. The Council, with the signature of the protocol incorporating the scheme, was able, on 14 March 1924, to accept full responsibility for proceeding with it. The scheme came into effect on 1st May.

One important step in the implementation of the scheme was the issue, in July 1924, of the 7½ per cent Reconstruction or State Loan (Kingdom of Hungary Sinking Fund Gold Bonds, 1924-1944), to the nominal amount of 68.7 million dollars. The greatest part of the loan (96 per cent), was issued publicly in the United Kingdom, the United States, Italy, Switzerland, the Netherlands and Sweden. The nominal rate of interest was 7½ per cent, except for the Italian portion (8.05 per cent). Prices of issue averaged at 81½ per cent, which meant an effective yield of 8½ per cent. Prices received by the government varied between 80 and 86⁸/₁₀. Net proceeds were 51.4 million dollars.

Prior to the placement of the loan, the reconstruction law and the law establishing the bank of issue were enacted on the same day (26 April 1924). The reconstruction law empowered the government to decree by ordinance in matters related to the execution of the scheme. The budgetary programme, agreed to by the Financial Committee and the government in advance, aimed at obtaining budgetary equilibrium — through four half-yearly budgets and fore-saw the covering of a gradually decreasing deficit from the proceeds of the internal loan already arranged for. The bank of issue started functioning on 1st January 1925.

CURRENCY CIRCULATION AND ASSETS OF THE
NATIONAL BANK OF HUNGARY: 1925-1930
(Million Pengő)

	Note circulation and sight liabilities ^a	Bills warrants, loans	Gold, foreign exchange ^b	State debt	Other assets
31 December 1925	629.66	134.20	266.29	156.34	320.65
Change: 1926	84.49	83.96	19.49	-21.61	-44.82
1927	81.41	113.94	25.14	-23.32	-30.90
1928	-41.29	85.35	-55.83	-14.17	-136.12
1929	-155.41	-87.90	-48.28	-9.70	-43.81
1930	-62.95	-31.87	-10.79	-23.20	-4.55
31 December 1930	535.91	297.68	196.02	64.34	60.45

^a Calculated at one Pengő = 12,500 Korona.

^b Calculated at one Kilogramme of fine gold = 3,794.- Pengő.

LOAN CAPITAL, CORPORATION-OWNED CAPITAL,
PROFITS AND LOSSES OF INDUSTRIAL AND
MINING CORPORATIONS: 1925-1929

(Million Pengő)

	Total of balance sheet	Loan capital	Share capital	Reserve capital	Profits	Losses
31 December 1925	1,914	780	529	541	64	20
Change: 1926	580	151	206	195	28	4
1927	290	178	44	38	30	3
1928	339	239	56	36	8	3
1929	225	110	65	45	5	11
31 December 1929	3,348	1,458	900	855	135	41

With the introduction of this complex of measures, the exchange rate of the Korona steadied in the course of 1925, at a level representing 1/14,500 of the old parity (even implying some recovery in comparison with the previous year). Cost of living and wholesale prices moved parallel. A new Hungarian currency, the "Pengő", could in consequence be introduced in November 1925, one Pengő equalling 12,500 paper Korona. Because of a favourable development of receipts rather than a reduction of expenditure, the budget closed with a surplus in both fiscal 1924/25 and 1925/26, that is to say, two years earlier than envisaged. This meant successful completion of the scheme and formed the basis for monetary and financial stability at least for a few years to come.⁶³

Currency developments in the 1925-1930 period were orderly in Hungary and currency circulation after two years of expansion began to decrease, first, from 1928 onwards, because of a decline in gold and foreign-exchange holdings and from 1929 onwards a decline also in commercial lending. The state debt as well as the post of other assets was throughout this period systematically reduced.

Banking institutions in the period of stabilization and credit expansion had an important role in industrial financing both as intermediaries of foreign capital and as distributors of domestically accumulated money capital. Loan capital of industrial corporations (including mining and steel corporations) which repre-

⁶³ For a full report on the Hungarian scheme see this author's "International Credit and Finance, 1919-1938: (iv) The Role of the League", Chapter 12, Volume Two, *The Economic History of Eastern Europe since 1919* (M.C. KASER and E.A. RADICE, Eds., Oxford, forthcoming).

sented 70 per cent or more of total industrial capital in those years, increased from close to 800 million Pengő in 1925 to close to 1,500 million Pengő in 1929, i.e. by about 700 million Pengő for industrial corporations and probably about 1,000 million Pengő for total industry. The share of foreign and domestic capital was about equal in this expansion: long-term foreign loans to industry are known to have increased by 133 million Pengő in these years and short-term foreign loans by estimated 392 million Pengő — which means a foreign part slightly above and a domestic part slightly below 500 million Pengő.⁶⁴

BALANCE OF PAYMENTS OF HUNGARY: 1923-1924, 1926-1937
(Million Pengő)

Year	Capital balance	Capital movements		Current balance	Goods	Services	Interest and dividends	Gold	Errors and omission
		Long-term	Short-term						
1923	14	9	5	-79	-97	6	5	7	-65
1924	111	-15	126	-148	-147	14	-16	1	-37
1923-4	125	-6	131	-227	-244	20	-11	8	-102
1926	146	167	-21	-148	-77	17	-87	-1	-2
1927	480	278	202	-509	-377	-12	-118	-2	-29
1928	502	315	187	-522	-385	16	-148	-5	-20
1929	208	218	-10	-217	-44	-6	-162	-5	-9
1926-9	1,336	978	358	-1,396	-883	15	-515	-13	-60
1930	210	-43	253	-127	72	-4	-187	-8	83
1931	287	20	267	-212	27	-26	-208	-5	75
1932	7	2	5	-25	-9	6	-18	-4	-18
1933	0	0	0	28	66	-4	-28	-6	28
1930-3	504	-21	525	-336	156	-28	-441	-23	168
1934	-16	-	-16	9	48	2	-41	-	-7
1935	-48	2	-50	28	50	5	-27	-	-20
1936	-58	-2	-56	65	67	23	-25	-	7
1937	-23	1	-82	100	95	32	-27	-	17
1934-7	-205	-1	-204	202	260	62	-120	-	-3

Notes. In 1924-9 — medium-term transactions are shown with short-term capital movements; in 1930-7 — with long-term movements.

⁶⁴ Estimates based on *Annuaire statistique hongrois*, 1926, p. 109, 1930, p. 111) and cf. BEREND and RÁNKI, pp. 172-173, 180-181. Also see, for a review of the period to 1938, V. (VILMOS) NÖTEL, *Közgazdasági Szemle*, 1941, "A magyar ipari termelés finanszírozása" (Financing Hungarian industrial production), pp. 451-483.

The total of bank credits granted to industrial corporations (the overwhelming part of all credits), whether from foreign or domestic sources, increased importantly in the four years of credit expansion: the total increase was by 83 per cent or 595 million Pengő, from 715 million Pengő in 1925 to 1,310 million Pengő in 1929. The share of long-term credits was modest in this increase: 19 per cent of exclusively foreign financed or refinanced industrial mortgages. The 81 per cent share of short-term finance in the increase was, by contrast, provided to one part from domestic and one part from foreign sources and mostly granted by, or contracted through, Budapest banks in most varied arrangements: rediscounted bills of exchange (only 4 per cent), advances (7 per cent), acceptances (11 per cent), but, foremost, merchandise credits (23 per cent) and current account credits, with or without commodity or security pledges (34 per cent).⁶⁵

The demand for foreign finance was particularly pressing in the years of domestic financial stringency after stabilization. The only major long-term industrial loan to a value of 3 million dollars or 17 million Pengő was granted in New York to the leading metallurgical concern, the Rimamurány-Salgótarján Steelworks. The total of short-term loans, by contrast, added up to 231 million Pengő — including a Swiss loan to the important Ganz Electric Engineering Works, an English loan to the First Budapest Flour Mills, and an Anglo-Austrian loan to the value of 1.25 million Pound Sterling or 35 million Pengő contracted in Vienna, without the intermediary of Budapest banks, by Victoria Flour Mills (which two years later went into bankruptcy).

The influx of foreign capital was, as noted, of considerably greater volume in the subsequent years of credit expansion. The most important transaction, within the total of 133 million Pengő of long-term transactions, was the British Government-guaranteed so-called Talbot Loan of 1928 — to the amount of 3.3 million Pound Sterling or about 92 million Pengő which financed the establishment of a major power plant and the electrification of the Budapest-Vienna railway line. The leading textile concern, the Goldberger works received in the same year a loan of 300 thousand Pound Sterling or about 8 million Pengő which served its investment into a large cotton spinning mill. The long-term (20-years) loan of 1928 of the specially established semi-public Hungarian National Industrial Mortgage Institute to the amount of 4.6 million dollars or 26 million Pengő permitted this Institute to grant 43 long-term loans to industrial firms, preponderantly in the metal-engineering and textile sectors.⁶⁶

⁶⁵ *Annuaire statistique hongrois* 1926, loc. cit.

⁶⁶ Cf. BEREND and RÁNKI, pp. 175-181.

GROSS DOMESTIC PRODUCT, FIXED CAPITAL FORMATION
AND INDUSTRIAL OUTPUT IN HUNGARY: 1924/25-1929/30
(Million Pengő and - in italics - annual percentage rates of change)

	At current prices			At constant prices ^a		
	Gross domestic product	Fixed capital formation	Industrial output ^b	Gross domestic product	Fixed capital formation	Industrial output ^b
Totals in 1924/25	5,058	358	1,487	3,883	311	1,094
Change: 1925/26	830	121	271	764	113	196
	<i>16.4</i>	<i>33.8</i>	<i>18.2</i>	<i>19.7</i>	<i>36.3</i>	<i>17.9</i>
1926/27	—	145	42	-67	142	138
	—	<i>30.3</i>	<i>2.4</i>	<i>-1.4</i>	<i>33.5</i>	<i>10.7</i>
1927/28	455	184	96	290	137	102
	<i>7.7</i>	<i>29.5</i>	<i>5.3</i>	<i>6.3</i>	<i>24.2</i>	<i>7.1</i>
1928/29	450	54	71	327	37	68
	<i>7.1</i>	<i>6.7</i>	<i>3.7</i>	<i>6.7</i>	<i>5.3</i>	<i>4.4</i>
1929/30	-313	-219	-67	69	-180	-26
	<i>-4.6</i>	<i>-25.4</i>	<i>-3.4</i>	<i>1.3</i>	<i>-23.4</i>	<i>-1.6</i>
Totals in 1929/30	6,480	643	1,900	5,266	560	1,572

^a For gross domestic product and industrial output prices of 1938-39; for fixed capital formation prices of 1937.

^b Mining and ferrous metallurgy; manufacturing; small-scale industry; construction.

Short-term foreign credits to industry, the volume of which was noted to have increased in the years 1925-9 by about three times the total of newly granted long-term loans, to one part were effectively short-term credits for the financing of production campaigns, merchandise exports, or, foremost, merchandise imports — but to a major part only formally short-term and effectively long-term loans, relied upon for the financing of fixed and stock investment.⁶⁷

However this may be, foreign finance provided to industry in the period of stabilization and credit expansion, to the total of about 660 million Pengő (of which long-term — 150 million, short-term — 510 million) served, apart from the misguided loan to the Victoria concern, overwhelmingly productive purposes and found their counterpart in an otherwise unobtainable expansion in the imports of industrial raw materials, semi-finished products, and also machinery and equipment.

⁶⁷ Cf. BEREND and RÁNKI, pp. 181-182.

A further important source of industrial financing in the period of credit expansion, mostly again in close co-operation with banking institutions, remained the raising of the share capital and reserves of industrial corporations. The value of industrial share capital thus rose in the four years 1925-9 by 371 million Pengő and that of reserves by 314 million Pengő which meant a total of 685 million Pengő, about as much as the increase in loan capital. The participation of banking institutions in the share capital of industrial corporations reached by this time as much as 57 per cent (1929) — as compared with 47 per cent in the prewar period (1913).⁶⁸

The period of foreign credit inflow was a decisively important era in the country's industrial development. Industrial investment rose sharply, although at decelerating rates, by 70 per cent in four years, and industrial production by 46 per cent; industrial investment in 1929/30, in spite of the first impact of recession, still reached a level 33 per cent above the level of 1924/25, and industrial production a level higher by 44 per cent.⁶⁹

Productive capacities of manufacturing industries (including electric power production), measured on the motive power of machinery and equipment, thus expanded by 38 per cent from 1925 to 1930⁷⁰ and the book value at current prices of stocks in manufacturing and mining companies, after some decline from 1929 to 1930, by 46 per cent.⁷¹

Changes in the sectoral distribution of industrial capacities, apart from a massive expansion for electric power production, showed every sign of a ready adaptation to the new realities of a highly protectionist trading environment and a greatly contracted customs area. Industrial capacities, as in the inflationary period, moved forward slowly only in the traditional sectors but expanded fast in the import substituting industries: plant capacities, comparing end-1930 to

⁶⁸ See I.T. BEREND and Gy. RÁNKI, *Magyarország gyáripára a második világháború előtt és a háború időszakában: 1933-1944* (Factory industry of Hungary preceding and during the Second World War: 1933-1944, Budapest, 1968), p. 116.

⁶⁹ Cf. ECKSTEIN pp. 20, 53 (comparisons at constant prices). Total gross investment (fixed capital formation), on the same basis, showed a plus of 138 per cent in 1928/29 and of 80 per cent in 1929/30; gross domestic product (total net output including services sectors) an increase by 34 per cent in four years and by 36 per cent in five years.

⁷⁰ See *Annuaire statistique hongrois*, 1919-1922, p. 81; 1925, p. 95; *Special Supplement* (Hungarian Institute for Economic Research), No. 8, I. VARGA, "Data on the Business Situation of Hungarian Manufacturing Industry" (in Hungarian), p. 31. The increase, most likely, was less important in the mining sector — according to indications deriving from a comparison of changes through the same years in the current value of fixed assets (land, buildings, equipment) in the company balance sheets of mining with manufacturing companies (see *Annuaire statistique hongrois*, 1926, p. 110 and 1931, p. 121).

⁷¹ Cf. *Annuaire statistique hongrois*, 1926, p. 110, 1930, p. 111, and 1931, p. 121.

end-1921, actually contracted in the metallurgical sector; they expanded by about 50-60 per cent in food processing, engineering and building materials, but they doubled in chemicals and trebled in textiles and for the total of other industries including leather, wood-working, paper, printing and allied industries.

Banking and Industry in Crisis and Recovery

The cataclysmic world economic crisis of 1929-1933 profoundly affected Hungary — as all east European countries. The impact of the disruption of international financial markets and of the collapse of export prices and receipts for agricultural products was, however, more immediate and violent for the internationally interlinked financial system and for export-dependent agriculture than for the industrial sector which, in preponderantly agricultural Hungary, was less vulnerable in this conjuncture of unfolding credit and currency crises and highly protectionist trading policies.

The net inflow of foreign capital to Hungary, which was of an order of 500 million Pengő, or 90 million dollars, in 1928, shrank to less than half in 1929 and 1930 and further shrank, after a last upsurge through the emergency credits of 1931, to near-to-zero or zero levels in 1932 and 1933. The index of export prices (1928 = 100) lost 34 per cent by 1931, 44 per cent by 1932, and 56 per cent by 1933, and export earnings fell, from the same basis, to less than three quarters in 1931 (index : 71.0) and to less than one half in 1932 (index : 41.6) and 1933 (index : 48.7). The increasingly heavy burden of interest and dividend payments, from 1929 onwards, absorbed the best part of the net credit inflow and, with complete interruption of the inflow and important withdrawals on short-term accounts, imposed the necessity, first, to introduce foreign exchange management (August 1931) and, subsequently, to declare an initially partial and finally close-to-full transfer moratorium on current debt service as well as on reimbursements and amortization (January and July 1932).⁷²

Domestic repercussions were equally devastating. The banking system was paralysed for years by drastic withdrawals from foreign and domestic deposit accounts and by the government-imposed farm debt moratorium. Freely disposable income and purchasing power of millions of peasants and many other agricultural producers, notwithstanding debt moratorium, price support and other relief measures, was shrinking frequently below the support-

⁷² For a detailed analysis of these developments in their international setting, see *Economic History of Eastern Europe since 1919*, Chapter 12, Volume Two, this author's "International credit and finance, 1919-1938: (vi) Crisis and contraction, 1929-1933".

GROSS DOMESTIC PRODUCT, FIXED CAPITAL FORMATION
AND INDUSTRIAL OUTPUT IN HUNGARY: 1929/30-1938/39
(*Million Pengő and - in italics - annual percentage rates of change*)

	At current prices			At constant prices ^a		
	Gross domestic product	Fixed capital formation	Industrial output ^b	Gross domestic product	Fixed capital formation	Industrial output ^b
Totals in 1929/30	6,480	643	1,900	5,266	560	1,572
Change: 1930/31	-691 <i>-10.7</i>	-159 <i>-24.7</i>	-205 <i>-10.8</i>	-97 <i>-1.8</i>	-122 <i>-21.8</i>	-70 <i>-4.5</i>
1931/32	-764 <i>-13.2</i>	-66 <i>-13.6</i>	-224 <i>-13.2</i>	-276 <i>-5.3</i>	-35 <i>-8.0</i>	-109 <i>-7.3</i>
1932/33	-525 <i>-10.4</i>	-110 <i>-26.3</i>	-118 <i>-8.0</i>	-233 <i>-4.8</i>	-79 <i>-19.6</i>	-55 <i>-3.9</i>
1933/34	-94 <i>-2.1</i>	-70 <i>-22.7</i>	-2 <i>-1.5</i>	399 <i>8.6</i>	-66 <i>-20.4</i>	120 <i>9.0</i>
Totals in 1933/34	4,406	238	1,351	5,059	258	1,458
Change: 1934/35	154 <i>3.5</i>	-3 <i>-1.3</i>	60 <i>4.4</i>	59 <i>1.2</i>	-3 <i>-1.2</i>	93 <i>6.4</i>
1935/36	329 <i>7.2</i>	51 <i>21.7</i>	87 <i>6.2</i>	225 <i>4.4</i>	54 <i>21.2</i>	141 <i>9.1</i>
1936/37	400 <i>8.2</i>	103 <i>36.0</i>	144 <i>9.6</i>	325 <i>6.1</i>	93 <i>30.1</i>	74 <i>4.4</i>
1937/38	206 <i>3.9</i>	66 <i>17.0</i>	105 <i>6.4</i>	-124 <i>-2.2</i>	47 <i>11.7</i>	—
1938/39	305 <i>5.6</i>	55 <i>12.1</i>	199 <i>11.4</i>	256 <i>4.6</i>	47 <i>10.5</i>	180 <i>10.2</i>
Totals in 1938/39	5,800	510	1,946	5,800	496*	1,946

^a For gross domestic product and industrial output prices of 1938-39; for fixed capital formation prices of 1937.

^b Mining and ferrous metallurgy; manufacturing; small-scale industry; construction.

able minimum.⁷³ Effective demand for industrial products, both investment and consumer goods, severely contracted in consequence.

The crisis, however, developed primarily in financial and secondarily only in real terms. The value of gross domestic product of current prices decreased

⁷³ Ready cash circulation in many villages, as was common knowledge those days, was exclusively in small coin and the total of their holdings often was less than the smallest denomination of bank-notes (10 Pengő).

in the four years from 1929/30 to 1933/34 by 32 per cent — agricultural output by 51 per cent and industrial output by 29 per cent. Agricultural output at constant prices, by contrast, remained virtually the same in this comparison, while the shortfall in the volume of industrial output, after a sharper reduction the year before, was, at this stage, by not more than 8 per cent.⁷⁴

Banking and industry in this long phase of extreme deflationary pressure, aggravated by the withdrawals of important foreign and domestic funds, were, however, given the possibility of availing themselves, within narrow limits, of credit facilities unblocked by the bank of issue. The National Bank of Hungary, in the three years from end-1930 to end-1933, extended additional credits in the form of bills, warrants and loans, primarily to banks, industry and commerce, to the total amount of 338 million Pengő, while all other items of the balance were decreasing: the total of bank-note circulation and sight liabilities by 64 million Pengő and, among assets, gold and foreign exchange by 105 million Pengő, state debt by 14 million Pengő, and other assets by 43 million Pengő.

CURRENCY CIRCULATION AND ASSETS
OF THE NATIONAL BANK OF HUNGARY: 1930-1938
(Million Pengő)

	Note circulation and sight liabilities	Bills, warrants, loans	Gold, foreign exchange	State debt	Other assets
31 December 1930	535.91	297.68	196.02	64.34	60.45
Change: 1931	12.99	143.19	-77.55	-5.90	-31.93
1932	-117.90	31.53	-8.36	-6.03	-1.08
1933	40.70	163.39	-19.24	-2.30	10.07
31 December 1933	471.70	635.79	90.87	50.11	17.37
Change: 1934	15.32	-4.43	8.40	-0.12	-5.37
1935	77.01	-44.55	12.96	27.00	69.94
1936	85.04	-37.45	14.18	20.89	57.40
1937	62.77	-82.68	16.18	17.40	84.03
1938	347.41	58.98	78.01	152.89	90.20
31 December 1938	1,059.26	525.66	220.60	268.17	331.71

⁷⁴ The crisis in real terms reached bottom one year earlier but prices continued to fall: industrial output at current prices thus hardly changed and agricultural output decreased by 7 per cent between 1932/33 and 1933/34 while expansion in real terms was 9 per cent for industry and 10 per cent for agriculture.

LOAN CAPITAL, CORPORATION-OWNED CAPITAL,
PROFITS AND LOSSES OF INDUSTRIAL
AND MINING CORPORATIONS: 1929-1938

(Million Pengő)

	Total of balance sheet	Loan capital	Share capital	Reserve capital	Profits	Losses
31 December 1929	3,342	1,458	900	855	135	41
Change: 1930	-24	-76	11	65	-24	17
1931	-18	-18	11	18	-29	28
1932	79	29	6	60	-16	39
1933	-55	-20	-42	9	-2	-13
31 December 1933	3,330	1,373	886	1,007	64	112
Change: 1934	41	45	-17	4	9	-24
1935	43	17	-4	18	12	1
1936	165	88	2	54	21	-23
1937	144	72	5	55	12	9
1938	230	117	10	38	5	-3
31 December 1938	3,953	1,772	882	1,176	123	72

The close co-operation between banking and industry continued in subsequent years of stagnation and crisis and proved to be instrumental in preserving the country's industrial capacity — in spite of the reduced availability of foreign credit, consequent domestic credit restrictions, and sizeable cuts in industrial prices, sales, and production. The total of outstanding foreign industrial loans diminished from 1929 to 1931 by estimated 75 million Pengő (of which: long-term — 39 million and short-term — 36 million).⁷⁵ The decrease for the total debt of industrial corporations, whether foreign or domestic, was 145 million Pengő in the three years from 1929 to 1932 — with important reductions in the amount of mortgage and merchandise and other credits (by a total of 273 million Pengő) and a partly compensating expansion of current account credits and advances (by 128 million Pengő).

The recovery of industrial production and investment from its lowest level in 1932, was well sustained by a first most modest but subsequently accelerating process of credit expansion. The total loan capital of industrial corporations rose from 1931 to 1938 by more than 400 million Pengő, from 1,364 million Pengő to 1,772 million Pengő — with a further continuing increase in the share of current account credits.

⁷⁵ See cf. BEREND and RÁNKI, 1919-1929, pp. 180, 182, and cf. V. NÓTEL, p. 458.

Autofinancing of industrial enterprises, in maintained co-operation with banking institutions, became in these years of stagnation, crisis, and recovery a further, equally important source of industrial finance. The company-owned capital of industrial corporations increased, even in the years of credit contraction, by more than 100 million Pengő — from 1,755 million Pengő in 1929 to 1,860 million Pengő in 1931; and it continued to increase in the subsequent years of resumed credit expansion by close to 200 million Pengő — to 2,058 million Pengő in 1938. The increase from 1929 to 1938 thus was about the same, after fluctuations, for both the loan capital and the company-owned capital of industrial corporations (314 million and 303 million Pengő, respectively) and the ratio of loan capital to company-owned capital at this phase of the recovery (79 per cent in 1937 and 86 per cent in 1938) again very close to what it was nine years earlier at the peak of the preceding expansion (83 per cent in 1929).

The total share capital of industrial corporations, on account of the establishment of new or the liquidation of existing corporations or other additions to or write-offs from share capital, rose from 900 million Pengő in 1929 to 928 million Pengő in 1932 and, after a sharp fall in 1933, established itself, with comparatively little change from year to year, at 882 million Pengő in 1938.

The controlling influence of the banking-industrial complex over corporate industry continued to increase in all these years of crisis and recovery —

INDUSTRIAL CONCERN NETWORK OF LEADING HUNGARIAN BANKS: 1938

Industries	Magyar Általános Hitelbank Hungarian General Credit Bank		Pesti Magyar Kereskedelmi Bank Hungarian Commercial Bank of Pest	
	Number of corporations	Share capital in million Pengő	Number of corporations	Share capital in million Pengő
Mining; steel, etc. furnaces	10	91.00	12	52.05
Metallurgy, engineering	15	25.94	12	24.71
Electricity, electric engineering	17	45.74	12	37.37
Chemicals	7	4.86	11	12.64
Textiles	14	19.90	8	9.42
Foods, drinks	17	49.69	15	38.22
Building materials, glass, porcelain, etc.	8	5.14	5	4.33
Wood, paper, printing	7	3.48	8	14.86
Other industries*	7	2.63	5	8.21
All industries	102	248.39	88	201.81

* Includes construction firms.

from 57 per cent in 1929 to as much as 60 per cent in 1938.⁷⁶ The greatest part of this controlling influence, 50 per cent out of the 60 per cent, was concentrated in the two majors of Hungarian banking, the Hungarian General Credit Bank and the Hungarian Commercial Bank of Pest — five other big banks sharing control over the remaining 10 per cent. The position of the two majors was dominant over the closely interlinked complex of the highly protected and organized electric power, coal, steel and engineering industries. Participation was equally dominant in the sugar, alcohol, food and drinks sectors, which benefited from a combination of fiscal and industrial monopolies. Important parts of the most dynamic textile and chemical industries were, by contrast, less firmly under banking control.

PRODUCTIVE CAPACITIES IN TERMS OF MOTIVE POWER
IN HUNGARIAN MANUFACTURING INDUSTRIES:
1921, 1925, 1930, 1933, 1938

(*Thousand horsepower units and index numbers*)

	Thousand HP units ^a		1925	1930	1933	1938	1938	
	1925	1938	1921 = 100 ^b	1925 = 100	1930 = 100	1933 = 100	1925 = 100	1921 = 100
Metallurgy	188.4	198.8	106	87	101	120	106	112
Engineering	65.7	94.7	133	115	118	106	144	192 ^c
Electric power production	368.9	727.5	134	180	105	104	197	264
Chemicals	28.5	62.4	163	123	122	145	219	357
Textiles, clothing	42.8	97.6	192	155	108	136	228	438
Foods, drinks	153.5	222.8	138	109	107	124	145	200
Building materials, glass, porcelain, etc.	52.1	70.0	127	129	93	113	134	170
Other manufacturing ^c	36.7	78.4	165	135	108	147	214	353
Total manufacturing	936.6	1,552.2	131	138	106	114	166	217

^a Capacity of prime movers *plus* of electric motors driven by electricity generated outside the plant.

^b Based on information referring to the capacity of primer movers *plus* electric motors (without deduction for electric motors driven by electric power generated on the plant).

^c Includes leather, wood-working, paper, printing and allied industries.

⁷⁶ Concurrently with this reinforcement of the controlling influence of the banking-industrial complex, there was a decline of foreign shareholdings in the industrial sector — from 28 per cent in 1929 to 25 per cent in 1938 (Cf. BEREND and SZUHAY, pp. 221, 222; also see *Economic History of Eastern Europe since 1919*, Chapter 12, Volume Two, this author's "International credit and finance, 1919-1938: (viii) Foreign participation in domestic enterprise").

The manufacturing and mining sector of Hungary's economy, after this abnormal "cycle" of crisis and recovery, emerged not only without major damage to its productive potential, but, to some extent, even reinforced, by significative additions to plant and equipment and a modest improvement in the composition of stocks.⁷⁷ Productive capacities of manufacturing in terms of the motive power of machinery and equipment expanded by 6 per cent in the years of crisis (from 1930 to 1933) and further expanded, by 14 per cent, in the subsequent years of unfolding recovery (from 1933 to 1938): increase for the two phases in combination (from 1930 to 1938) were much below the average for total manufacturing (21 per cent), for electric power production and the building materials and related industries; they were around this average for metallurgy and engineering, but much higher for the food, the textiles and, most importantly, for the chemical sectors.⁷⁸ The banking and industrial complex of Hungary, in spite of high risks of an increasingly threatening foreign domination, thus continued to make a valid contribution to the development and adaptation of the industrial sector — in objective alliance, at this stage, with a partly only representative government and a majority of the working class.

Summary and Assessment of Systematic Changes

The foregoing investigation and analysis was conceived as an attempt at seeking answer to three important problems of monetary, banking and industrial policy. It was designed as a contribution to the assessment of the effects of the interwar gold-exchange-standard experiment, and its early disruption, upon credit, trade and growth of small peripheral countries. The second objective was to see whether basically "universal" commercial and credit banks were able to perform useful functions, under greatly varying circumstances, as stimulators of financial capital accumulation and intermediaries between the financial and real sectors. The third objective was an investigation of these banks' functions as organizers and controllers of industrial enterprise and their contribution to

⁷⁷ Cf. *Annuaire statistique hongrois*, 1929, p. 113; 1930, p. 111; and 1938, p. 145: The share of materials in the total of stocks in manufacturing and mining increased from 33 per cent in 1929 and 32 per cent in 1930 (of totals of 540 million Pengő and 501 million Pengő, respectively) to 41 per cent in 1938 (of a total of 524 million Pengő).

⁷⁸ Manufacturing capacities, as a whole, more than doubled in seventeen years of the interwar period (from end-1921 to end-1938): the rise, among the traditional industries, was most modest in metallurgy but capacities about doubled in two traditional sectors, engineering and food, drink, tobacco; for electric power production, the increase was to two and a half times; for chemicals, capacities much more than trebled, for textiles, clothing they quadrupled.

the development, preservation or conversion of productive capacities and the productive deployment of labour.

But before trying to find an answer to these questions a preliminary question has to be raised, namely whether this interwar experience of Austria and Hungary can at all be relevant in the contemporary context. There were indeed important historical discontinuities in Austria which may be thought to deprive factfinding and analysis of these bygone events of most of their meaning. The historical discontinuities in Hungary were even sharper which may give to this type of objection even firmer support.

The investigation and analysis of the interwar gold-exchange-standard experiment and its early disruption point to and put into relief causal connections in two important respects. The breakdown of this experiment clearly was linked to the failure to succeed with co-ordination between credit and trade policies. Multilateralization of credit came in combination with a stubbornly protective trade policy, first within the region surrounding these two countries, and subsequently on a world scale. The second important connection emerging is that with a breakdown of international credit and growing protectionism of important trade partners, national policies necessarily divert towards autarky which also implies growing governmental interference in the banking sector and reinforced political pressure in favour of nationalization in the industrial sector.

The dominant role of universal banks as financial intermediaries indicates that they can be lenders of last resort at their own risk and peril only — which is to say that they depend decisively on adequate backing from central banks, foreign creditors and the whole interconnected international system of universal banks. The backing by the central bank has, however, its unavoidable implications for currency circulation. The backing by foreign creditors weighs heavily on future balances of payments. Support beyond certain limits by the interconnected international chain of universal banks, moreover, brings with it the risk of breaking at its weakest point.

Universal banks as lenders of last resort thus have a limited scope only for effective action. Their dependence on the quality of their assets and liabilities is extreme. Critical conditions in the real sector serviced by them can deprive of favourable credit rating important sections of their customers. They equally depend on the quality of their borrowed capital. Their credit-worthiness ultimately depends on the assessment on the part of foreign creditors and central banks. In consequence it is their role as financial intermediaries rather than as lenders of last resort which is of decisive importance.

Universal banks as partners in management are also having an important role. Austrian universal banks preserved practically the whole of Austrian industry through structural and international crises of inordinate gravity —

although at the price of immense sacrifice in terms of unemployment. Hungarian universal banks, in more favourable conditions, succeeded to help industry through a much shorter and less sharp crisis and finally substantially contributed to its ulterior expansion.

To draw conclusions from the interwar experience from the viewpoint of the two countries which lived through this experience would indeed be most tempting. It would show in the case of Austria a remarkable capacity — on the part of the National Bank as well as Creditanstalt-Bankverein — to resume continuity, after complete break for more than seven years through occupation and war, in her political and economic organization and practices on the national as well as international level.

Hungary, in spite of the shift towards state ownership, state monopoly, and planning in its economy, also preserved a certain continuity by strongly relying on financial instruments in planning, organizing, co-ordinating, directing and controlling current and investment activity of industries and the whole of the real sector.

While restricting comment in respect of Austria and Hungary to these very few remarks it may be more rewarding to try to draw some conclusion of more general validity concerning the contemporary organization and functioning of the international financial and commercial system in its close interconnections between international financial markets and national banking institutions and industries.

The interwar experience of the gold exchange standard and related attempts at the liberalization and multilateralization of trade undoubtedly had a profound impact on postwar theory and practice in these matters. They greatly inspired the Bretton Woods Agreement and the rules governing activities of the World Bank and the International Monetary Fund. They also influenced the drawing up of the Havana Charter and its limited implementation through the General Agreement on Tariffs and Trade.

This interwar experience, however, is relevant not only in its initial stages but also in its ultimate sequels. Expansionary international credit policies in growingly protectionist surroundings provoked the sharpest international economic and financial crisis of the last two centuries. Governments, central banks, bankers and industrialists mostly were caught unawares in that situation and only very few experts, combining required qualities of banking experience with full understanding of economic interconnections, could sound mostly unheeded warnings.

Uncertainties in matters of international credit, international currencies, and international trade are hardly less menacing in our days than they were in those times. The necessity of going beyond formal criteria of credit rating of

countries, banks and industries therefore imposes itself with greater weight than ever.

Practical proposals to cope with these problems in closest co-operation between bankers and economists found little response so far on the part of international organizations, governments, central banks and bankers. Economic and historical analysis of bank-industry relations in the interwar period undoubtedly would plead for practical progress in these matters.

NOTE ON STATISTICS

Currency circulation and assets

of Austro-Hungarian and Austrian banks of issue: 1918-1924 (p. 146, 198).

Sources: Cf. *Oesterreichische Notenbank, 1816-1966*, pp. 323, 347, 355; *Statistisches Handbuch der Republik Österreich*, vol. II (1921), p. 92, vol. III (1922), p. 75, vol. V (1924), p. 81, vol. VI (1925), p. 105; cf. *Ein Jahrhundert Creditanstalt-Bankverein*, p. 335.

Assets and liabilities of four leading Austrian banks and their successors: 1913-1936;

Assets and liabilities of *Österreichische Creditanstalt-Wiener Bankverein* before and after the takeovers of 1929 and 1934: 1928-1936 (pp. 154, 166).

Sources: Cf. PUXBAUM, *Das mitteleuropäische Bankwesen*, pp. 17, 52; *Wirtschaftstatistisches Jahrbuch*, 1929/30, pp. 442-443; 1930-31, pp. 410-411; 1933-35, pp. 320-321; 1937, p. 511.

Currency circulation and assets

of the Austrian National Bank: 1924-1930, 1930-1937 (pp. 155, 165, 198).

Sources: *Denkschrift der Oesterreichischen Nationalbank anlässlich ihres 25-jährigen Bestandes* (Wien, 1948) p. 47; cf. *Statistisches Handbuch*, vol. VI (1925), p. 105; vol. VII (1926), p. 101; vol. VIII (1927), p. 123; vol. IX (1928), p. 127; vol. X (1929), p. 129; vol. XI, (1930), p. 132; vol. XII (1931), p. 134; vol. XIII (1932), p. 143; vol. XIV (1933), p. 145; vol. XV (1934), p. 157; vol. XVI (1935), p. 110; vol. XVII (1937), p. 125; vol. XVIII (1938), p. 158; *Jahresbericht und Vorlagen zur XV. Regelmässigen Jahressitzung der Generalversammlung der Oesterreichischen Nationalbank am 18. März 1938*, Wien, 1938, Vorlage 3.

Balance of payments of Austria: 1923-1929, 1934 (p. 156).

Sources: LEAGUE OF NATIONS, *Memorandum on International Trade and Balances of Payments, 1913-1927* (L.o.N. sales no: 1928.II.53/I) pp. 66-70; *ibid.*, 1927-1929 (L.o.N. sales no: 1930.II.54/II), pp. 52-56; LEAGUE OF NATIONS, *Balances of Payments 1930, including an Analysis of Capital Movements in 1931* (L.o.N. sales no: 1931.II.A.28/II), pp. 53-56; *Statistische Nachrichten*, No. 6, 1936, pp. 120-124.

The estimates are based on detailed published information in the quoted sources; total net capital inflow is taken to equal the deficit on current account; short-term capital inflow is derived as a residual - by deducting the net inflow on long-term accounts.

Gross domestic product, fixed capital formation and industrial output
in Austria: 1924-1929, 1929-1937 (pp. 157, 169, 200).

Source: *Monatsberichte des Österreichischen Institutes für Wirtschaftsforschung*, Sonderheft 14, "Österreichs Volkseinkommen 1913 bis 1963" (Wien, 1965), pp. 37, 38, 41, 42.

Industrial concern network of leading Austrian banks: 1930 (p. 163).

Source: W. REIK, *Beziehungen der Österreichischen Grossbanken zur Industrie* (Wien, 1932) p. 42.

Contributions of the State, the National Bank and shareholders to the First Creditanstalt Rescue Scheme of 12 May 1931; Contributions of the State, the National Bank and shareholders to the Arrangements concerning Creditanstalt's Debts and Losses of 18 August 1932; Debt settlement

arrangements between Austrian Government and the International Committee of Creditanstalt's Foreign Creditors of 11 January 1933, 27 April 1933 and 29 January 1936 (pp. 164, 172, 173).

Sources: Cf. *Oesterreichische Notenbank, 1816-1966*, pp. 461, 463, 468; cf. *Ein Jahrhundert Creditanstalt-Bankverein*, pp. 354-355, 357-358.

Currency circulation and assets of the Bank Note Institute and the National Bank of Hungary: 1920-1925; Currency circulation and assets of the National Bank of Hungary: 1925-1930, 1930-1938 (pp. 177, 180, 188, 199).

Sources: *Annuaire statistique hongrois*, 1919-1922, p. 139-140; 1923-1925, pp. 175; 1926, p. 158-159; 1928, p. 185; 1930, p. 175; 1932, p. 201; 1935, pp. 227-228; 1938, pp. 206-207.

Loan capital, corporation-owned capital, profits and losses of industrial and mining corporations in Hungary: 1921-1925, 1925-1929, 1929-1938 (pp. 178, 181, 189, 202).

Sources: *Annuaire statistique hongrois*, 1919-1922, p. 89; 1923-1925, p. 122; 1926, p. 107; 1927, pp. 100-101; 1928, pp. 127-28; 1929, pp. 112-13; 1930, pp. 110-111; 1931, pp. 120-21; 1932, pp. 127-28; 1933, pp. 138-39; 1934, pp. 138-39; 1935, pp. 146-47; 1936, pp. 139-140; 1937, pp. 147-48; 1938, pp. 144-45.

Balance of payments of Hungary: 1923-1924, 1926-1937 (p. 182).

Sources: LEAGUE OF NATIONS, *Balances of Payments*, 1937 (Ser. L.o.N.P., Geneva, 1938.II.A.18), pp. 15, 117-18; UNITED NATIONS, *Balances of Payments*, 1939-1945 (United Nations Publications, Geneva, 1947.III.1.), p. 83.

Gross domestic product, fixed capital formation and industrial output in Hungary: 1924/25-1929/30, 1929/30-1938/39 (pp. 184, 187, 201).

Source: A. ECKSTEIN, *Income and Wealth*, Chapter 5, Series V (Cambridge, 1956), "National income and capital formation in Hungary, 1900-1950", pp. 14, 20, 53, 54.

Industrial concern network of leading Hungarian banks: 1938 (p. 190).

Source: I.T. BEREND and GY. RÁNKI, *Magyarország gyáripára a második világháború előtt és a háború időszakában: 1933-1944* (Factory industry of Hungary preceding and during the Second World War: 1933-1944, Budapest, 1968), pp. 116-121.

Productive capacities in terms of motive power in Hungarian manufacturing industries: 1921, 1925, 1930, 1933, 1938 (p. 191).

Sources: *Annuaire statistique hongrois*, 1919-1922, p. 81; 1926, p. 95; *Special Supplement* (Hungarian Institute for Economic Research), No. 8, I. VARGA, "Data on the Business Situation of Hungarian manufacturing industry" (in Hungarian), p. 31.

CURRENCY CIRCULATION AND ASSETS OF THE AUSTRIAN
ADMINISTRATION OF THE AUSTRO-HUNGARIAN
BANK AND THE AUSTRIAN NATIONAL BANK: 1920-1937

	Note circulation and sight liabilities	Bills, warrants, loans	Gold, foreign exchange ^a	State debt	Other assets
Million Krone					
31 December 1920	34,424	23,791	2,706	114	8,997
Change: 1921	158,597	12,255*	..	144,601*	..
1922	4,215,518	746,216*	..	2,413,771*	..
1923	3,366,640	543,118	5,672,611	-23,996	-1,133,802
1924	1,166,038	556,213	1,700,772	-356,305	299,120
31 December 1925	8,941,217	1,881,593	7,901,638	2,178,185	461,366
Million Schilling					
31 December 1924	894.12	188.02	448.14	217.82	348.30 ^b
Change: 1925	50.91	-7.77	85.05	-29.88	17.34
1926	39.63	-56.75	106.76	-10.66	6.60
1927	60.60	8.21	57.91	-4.10	-10.70
1928	78.57	76.37	59.49	-57.02	-90.88
1929	34.45	97.57	-56.84	-7.52	12.19
1930	24.48	-157.62	189.32	-7.44	40.92
31 December 1930	1,182.77	148.01	929.83	101.21	323.77
Change: 1931	128.63	759.76	-612.27	-5.57	-10.57
1932	-179.19	-528.32	-128.97	567.33	-12.63
1933	-37.56	-104.31	13.14	-38.53	-57.66
1934	23.31	-38.80	75.72	—	-110.11
31 December 1934	1,117.96	236.35	277.45	624.44	132.80
Change: 1935	73.98	-10.86	77.51	—	9.60
1936	-43.85	-17.54	-13.02	-4.29	-9.85
1937	48.40	-20.00	62.42	-8.35	-7.16
31 December 1937	1,196.48	187.95	404.40	611.80	145.09

Note: For 1920-1922 — Austrian administration of Austro-Hungarian Bank; for 1923-37 — Austrian National Bank.

* Estimate

^a 1920-1924 including silver, etc. coins.

^b Of which: foreign exchange not included in currency cover — 302.02.

Sources: See "Note on Statistics."

CURRENCY CIRCULATION AND ASSETS OF THE BANK NOTE INSTITUTE AND THE NATIONAL BANK OF HUNGARY: 1920-1938

	Note circulation and sight liabilities	Bills, warrants, loans	Gold, foreign exchange ^a	State debt	Other assets
Million Korona					
31 December 1920	17,536	9,575	—	—	8,480
Change: 1921	-8,098	-9,375	—	1,800	-55
1922	66,472	32,867	16	14,700	3,903
1923	855,439	530,208	8	384,500	66,059
1924	5,652,109	1,413,613	2,449,962	1,573,781	2,924,554
1925	1,287,326	-299,631	890,545	-20,559	962,276
31 December 1925	7,870,784	1,677,527	3,340,531	1,954,222	3,996,217
Million Pengo					
31 December 1925	629.66	134.20	266.29	156.34	320.65
Change: 1926	84.49	83.96	19.49	-21.61	-44.82
1927	81.41	113.94	25.14	-23.32	-30.90
1928	-41.29	85.35	-55.83	-14.17	-136.12
1929	-155.41	-87.91	-48.28	-9.70	-43.81
1930	-62.95	-31.88	-10.79	-23.20	-4.55
31 December 1930	535.91	297.68	196.02	64.34	60.45
Change: 1931	12.99	143.19	-77.55	-5.90	-31.93
1932	-117.90	31.53	-8.36	-6.03	-1.08
1933	40.70	163.39	-19.24	-2.30	10.07
31 December 1933	471.70	635.79	90.87	50.11	17.37
Change: 1934	15.32	-4.43	8.40	-0.12	-5.37
1935	77.01	-44.55	12.96	27.00	69.94
1936	85.04	-37.45	14.18	20.89	57.40
1937	62.77	-82.68	16.18	17.40	84.03
1938	347.41	58.98	78.01	152.89	90.20
31 December 1938	1,059.26	525.66	220.60	268.17	333.71

Note: Before 1 August, 1921, the Hungarian administration of the Austro-Hungarian Bank. From 1 August, 1921 — Bank Note Institute; from 24 June, 1924 — National Bank of Hungary. The Hungarian administration of the Austro-Hungarian Bank handed over to the Bank Note Institute on 1 August, 1921, but continued to keep accounts up to and including 31 December, 1921.

^a Up to 31 December, 1923, calculated at original parity rates (one Kilogramme of fine gold = Korona 3278) — without reckoning for loss in the current value of currency. Subsequently corrected for loss in value at one gold Korona = 14 960 current Korona in 1924 and 14 482 current Korona in 1925. One Kilogramme of fine gold = Pengő³,794.

Sources: See "Note on statistics."

GROSS DOMESTIC PRODUCT, FIXED CAPITAL FORMATION
AND INDUSTRIAL OUTPUT IN AUSTRIA: 1924-1937
(*Million Schilling and - in italics - annual percentage rates of change*)

Rudolf Nöfel

	At current prices			At constant prices ^a		
	Gross domestic product	Fixed capital formation	Industrial output ^b	Gross domestic product	Fixed capital formation	Industrial output ^b
Totals in 1924	9,257	628	4,166	9,565	627	3,555
Change: 1925	<i>11.2</i>	<i>34.1</i>	<i>12.8</i>	<i>6.8</i>	<i>24.6</i>	<i>9.8</i>
1926	<i>-0.1</i>	<i>13.7</i>	<i>2.0</i>	<i>1.6</i>	<i>13.5</i>	<i>2.2</i>
1927	<i>8.0</i>	<i>-6.8</i>	<i>3.0</i>	<i>3.1</i>	<i>-5.1</i>	<i>1.7</i>
1928	<i>5.1</i>	<i>27.5</i>	<i>8.9</i>	<i>4.6</i>	<i>22.9</i>	<i>7.7</i>
1929	<i>3.5</i>	<i>11.7</i>	<i>4.5</i>	<i>1.5</i>	<i>10.0</i>	<i>2.8</i>
Totals in 1929	12,087	1,270	5,619	11,358	1,138	5,185
Change: 1930	<i>-4.4</i>	<i>-14.3</i>	<i>-7.7</i>	<i>-2.8</i>	<i>-11.5</i>	<i>-6.2</i>
1931	<i>-10.4</i>	<i>-19.4</i>	<i>-14.5</i>	<i>-8.0</i>	<i>-19.3</i>	<i>-10.8</i>
1932	<i>-7.8</i>	<i>-33.5</i>	<i>-12.8</i>	<i>-10.3</i>	<i>-33.1</i>	<i>13.0</i>
1933	<i>-5.5</i>	<i>-18.7</i>	<i>-9.1</i>	<i>-3.3</i>	<i>-15.6</i>	<i>-6.4</i>
Totals in 1933	9,020	473	3,513	8,803	459	3,532
Change: 1934	<i>-0.4</i>	<i>8.0</i>	<i>3.3</i>	<i>0.8</i>	<i>8.7</i>	<i>3.4</i>
1935	<i>-1.8</i>	<i>11.7</i>	<i>3.5</i>	<i>2.0</i>	<i>13.4</i>	<i>4.0</i>
1936	<i>2.0</i>	<i>13.8</i>	<i>7.5</i>	<i>2.9</i>	<i>14.5</i>	<i>1.7</i>
1937	<i>5.4</i>	<i>10.9</i>	<i>8.2</i>	<i>5.4</i>	<i>11.3</i>	<i>6.9</i>
Totals in 1937	9,822	721	4,128	9,822	721	4,128

^a Prices of 1937.

^b Includes: mining and manufacturing; electricity, gas, water; small-scale industry;

Sources: See "Note on statistics."

GROSS DOMESTIC PRODUCT, FIXED CAPITAL FORMATION
AND INDUSTRIAL OUTPUT IN HUNGARY: 1924/25 - 1938/39
(Million Pengő and - in italics - annual percentage rates of change)

	At current prices			At constant prices ^a		
	Gross domestic product	Fixed capital formation	Industrial output ^b	Gross domestic product	Fixed capital formation	Industrial output ^b
Totals in 1924/25	5,058	358	1,487	3,883	311	1,094
Change: 1925/26	<i>16.4</i>	<i>33.8</i>	<i>18.2</i>	<i>19.7</i>	<i>36.3</i>	<i>17.9</i>
1926/27	—	<i>30.3</i>	<i>2.4</i>	<i>-1.4</i>	<i>33.5</i>	<i>10.7</i>
1927/28	<i>7.7</i>	<i>29.5</i>	<i>5.3</i>	<i>6.3</i>	<i>24.2</i>	<i>7.1</i>
1928/29	<i>7.1</i>	<i>6.7</i>	<i>3.7</i>	<i>6.7</i>	<i>5.3</i>	<i>4.4</i>
1929/30	<i>-4.6</i>	<i>-25.4</i>	<i>-3.4</i>	<i>1.3</i>	<i>-23.4</i>	<i>-1.6</i>
Totals in 1929/30	6,480	643	1,900	5,266	560	1,572
Change: 1930/31	<i>-10.7</i>	<i>-24.7</i>	<i>-10.8</i>	<i>-1.8</i>	<i>-21.8</i>	<i>-4.5</i>
1931/32	<i>-13.2</i>	<i>-13.6</i>	<i>-13.2</i>	<i>-5.3</i>	<i>-8.0</i>	<i>-7.3</i>
1932/33	<i>-10.4</i>	<i>-26.3</i>	<i>-8.0</i>	<i>-4.8</i>	<i>-19.6</i>	<i>-3.9</i>
1933/34	<i>-2.1</i>	<i>-22.7</i>	<i>-1.5</i>	<i>8.6</i>	<i>-20.4</i>	<i>9.0</i>
Totals in 1933/34	4,406	238	1,351	5,059	258	1,458
Change: 1934/35	<i>3.5</i>	<i>-1.3</i>	<i>4.4</i>	<i>1.2</i>	<i>-1.2</i>	<i>6.4</i>
1935/36	<i>7.2</i>	<i>21.7</i>	<i>6.2</i>	<i>4.4</i>	<i>21.2</i>	<i>9.1</i>
1936/37	<i>8.2</i>	<i>36.0</i>	<i>9.6</i>	<i>6.1</i>	<i>30.1</i>	<i>4.4</i>
1937/38	<i>3.9</i>	<i>17.0</i>	<i>6.4</i>	<i>-2.2</i>	<i>11.7</i>	—
1938/39	<i>5.6</i>	<i>12.1</i>	<i>11.4</i>	<i>4.6</i>	<i>10.5</i>	<i>10.2</i>
Totals in 1938/39	5,800	510	1,946	5,800	496 ^c	1,946

^a For gross domestic product and industrial output prices of 1938/39; for fixed capital formation prices of 1937.

^b Mining and ferrous metallurgy; manufacturing; small-scale industry; construction.

Sources: See "Note on statistics."

LOAN CAPITAL, CORPORATION-OWNED CAPITAL,
PROFITS AND LOSSES OF INDUSTRIAL AND MINING CORPORATIONS:
1921-1938

	Total of balance sheet	Loan capital	Share capital	Reserves	Profits	Losses
Million Korona						
31 December 1921	29,249	18,542	4,387	4,978	1,342	280
Change: 1922	89,936	69,928	5,246	8,754	6,008	-50
1923	1,491,500	1,042,085	87,104	169,164	193,147	1,507
1924	6,244,633	5,216,216	107,929	308,340	612,148	39,417
1925	16,064,792	3,405,303	6,407,155	6,264,135	-11,801	211,704
31 December 1925	23,920,110	9,752,074	6,611,821	6,755,371	800,844	252,858
Million Pengő						
31 December 1925	1,914	780	529	541	64	20
Change: 1926	580	151	206	195	28	4
1927	290	178	44	38	30	3
1928	339	239	56	36	8	3
1929	225	110	65	45	5	11
31 December 1929	3,348	1,458	900	855	135	41
Change: 1930	-24	-76	11	65	-24	17
1931	-18	-18	11	18	-29	28
1932	79	29	6	60	-16	39
1933	-55	-20	-42	9	-2	-13
31 December 1933	3,330	1,373	886	1,007	64	112
Change: 1934	41	45	-17	4	9	-24
1935	43	17	-4	18	12	1
1936	165	88	2	54	21	-23
1937	144	72	5	55	12	9
1938	230	177	10	38	5	-3
31 December 1938	3,953	1,772	882	1,176	123	72

Sources: See "Note on statistics."