

THE ECONOMICS OF INFLATION

Together with the issues of paper money the current account deposits at the Reichsbank also grew rapidly, especially after 1915, thanks to the intense propaganda in favour of the substitution of the cheque for the banknote in payments.*

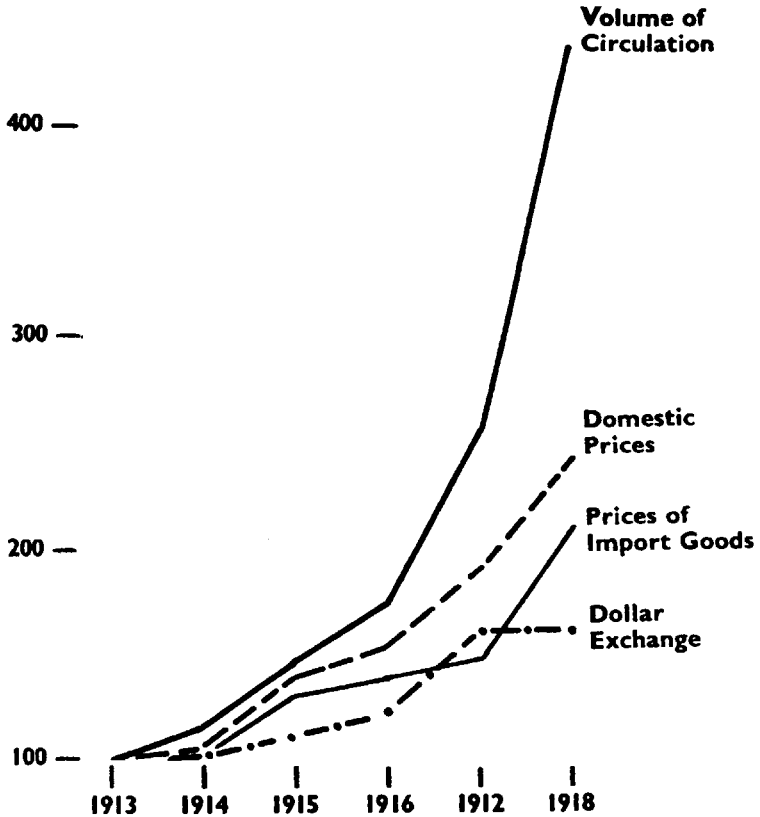


DIAGRAM I.—Basis of all curves: 1913 = 100

Reich ("Reichskassenscheine"); the notes issued by the Loan Offices which were created on August 4th, 1914; and metallic money.

I have calculated the indices contained in the present chapter from the data given in the official publication, *Zahlen zur Geldwertung in Deutschland, 1914-1923*, Berlin, 1925.

* Current account deposits at the Reichsbank (in millions of marks):

July 31st, 1914	1.3	December 31st, 1916 ..	4.6
December 31st, 1914 ..	1.8	December 31st, 1917 ..	8.1
December 31st, 1915 ..	2.4	December 31st, 1918 ..	13.3

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The index numbers of prices, compiled by the Statistical Bureau of the Reich, are (1) of the wholesale prices of imported goods* and (2) of home-produced goods. The increase of the prices of goods of

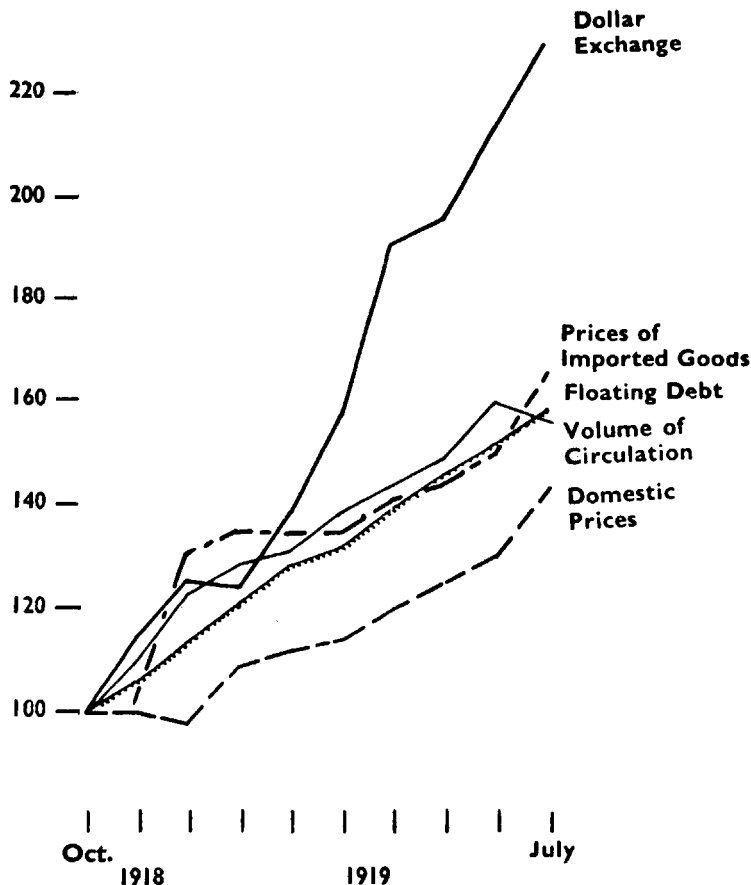


DIAGRAM II.—Basis of all curves: October 1918 = 100

the first category (index number 214 in October 1918) was less, during the war, than the increase of prices of goods of the second category (index number 239 in October 1918).

In the period indicated the floating debt of the Reich was enormously

* As to the items included in the "imported goods," see Chapter III, p. 129.

IV. FROM JULY 1919 TO FEBRUARY 1920

4. In the following period (July 1919 to February 1920) the various curves assumed characteristic positions. Those of the dollar rate and of the prices of imported goods are clearly detached from the other

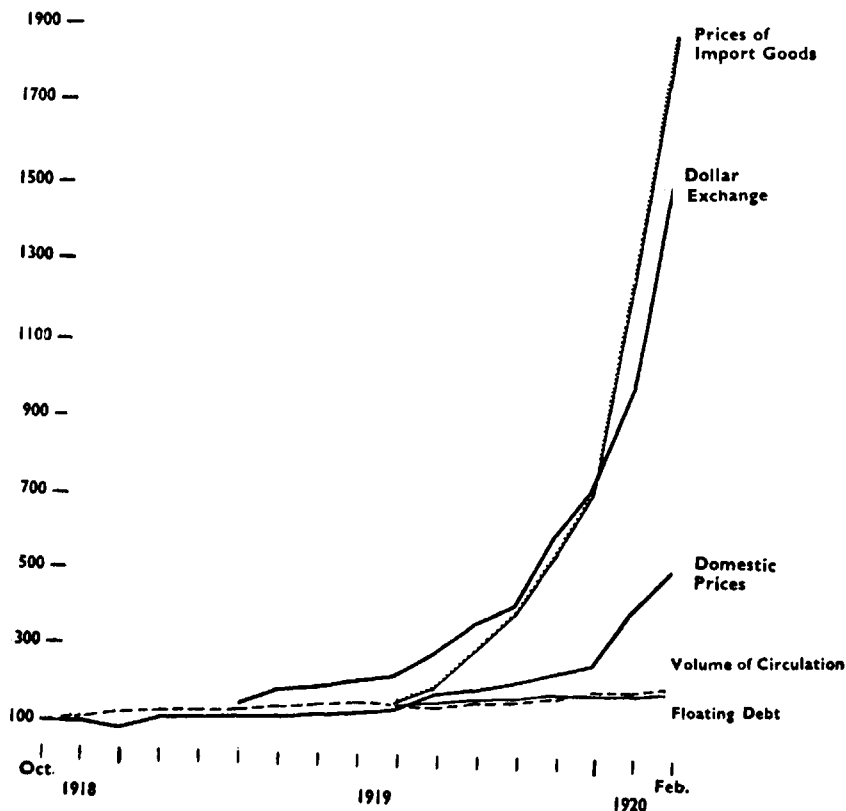


DIAGRAM III.—Basis of all curves: October 1918 = 100

curves. The curve of internal prices follows, but at some distance. Still less rapid was the increase of the circulation and of the floating debt. (Diagram III.)

In February 1920 the dollar rate was 23·6 times the former parity. As for prices, even in August 1919 the measure of the increase was still nearly equal for the home-produced goods and for those imported (4·24 and 4·29 respectively; 1913=1); but from August onwards the

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again a progressive depreciation. But in May 1921 the dollar rate was still below the level which it had attained in February 1920. The prices of imported goods diminished considerably (a marked fall of prices took place in that period in the outside world). On the other hand,

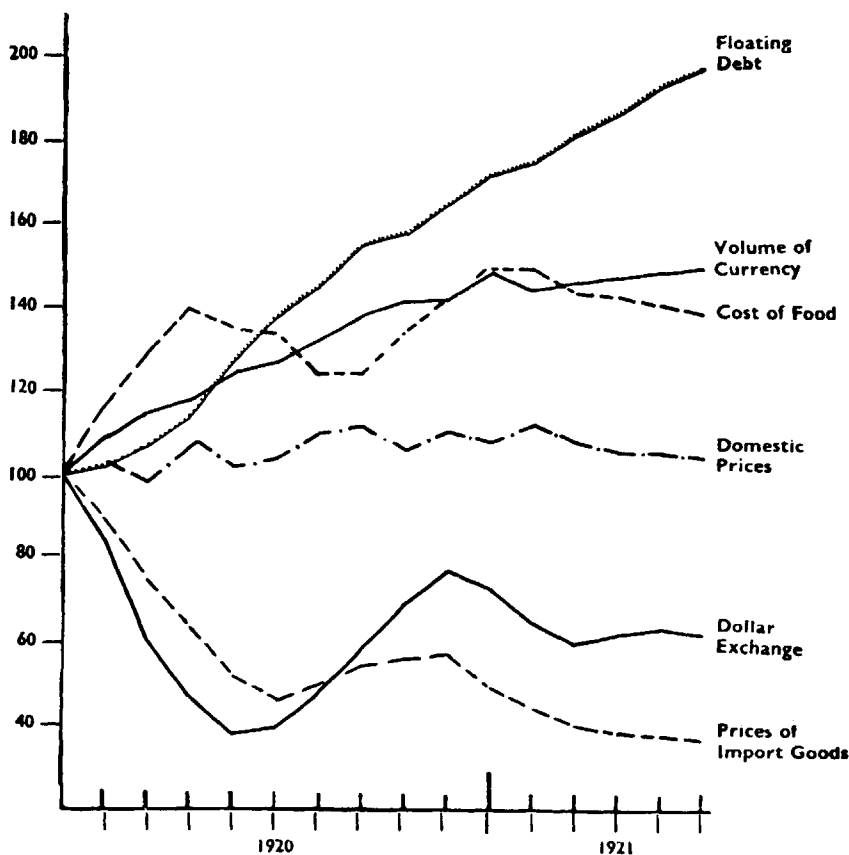


DIAGRAM IV.—Basis of all curves: February 1920 = 100

the increase of the floating debt was enormous (from 89 to 176.6 milliards) and so consequently was that of the circulation (from 54,456 millions to 81,735 millions). Internal wholesale prices were maintained at a fairly constant level; but the cost of living rose appreciably.

Diagram IV shows that in the period under examination the relative positions of the various curves were on the whole different from those

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which we have found in the preceding period. That of the floating debt rose much more rapidly than the other curves. The curves of circulation, of the cost of living, and of internal prices, followed. They continued to lag behind the prices of imported goods and the dollar rate. In May 1921 the dollar rate had risen to 14.83 times that of 1913; the complete index number of wholesale prices to 13.08 (imported goods 15.23; home-produced goods 12.66); the index number of the cost of food to 13.20. Once more was established an approximation to equilibrium between the purchasing power of the paper mark in Germany and its purchasing power abroad.

IV. FROM MAY 1921 TO JULY 1922

6. In the months between May 1921 and July 1922 once more the various phenomena examined present some characteristic aspects

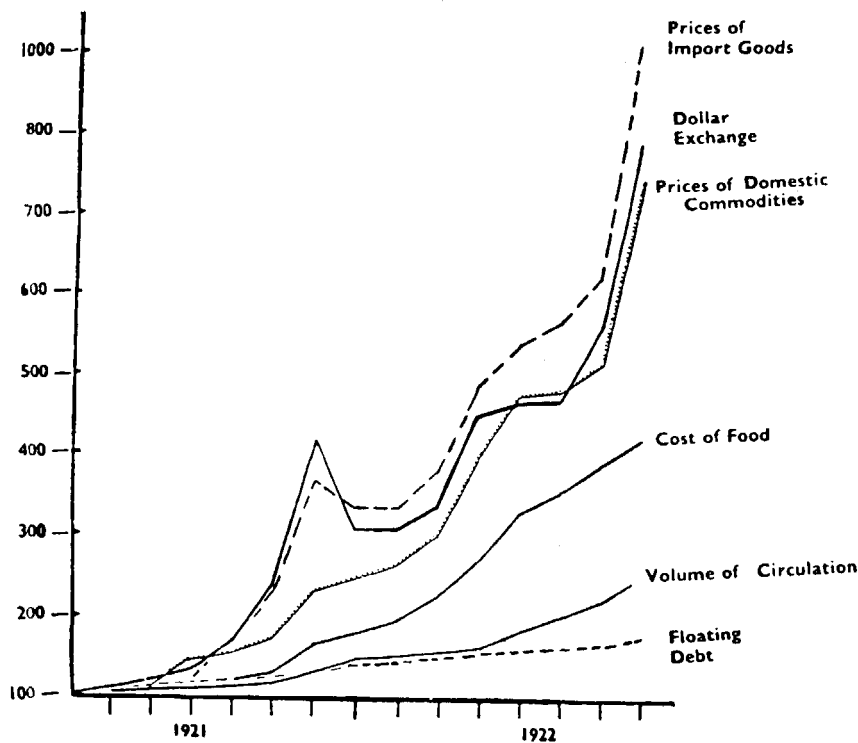


DIAGRAM V.—Basis of all curves: May 1921 = 100

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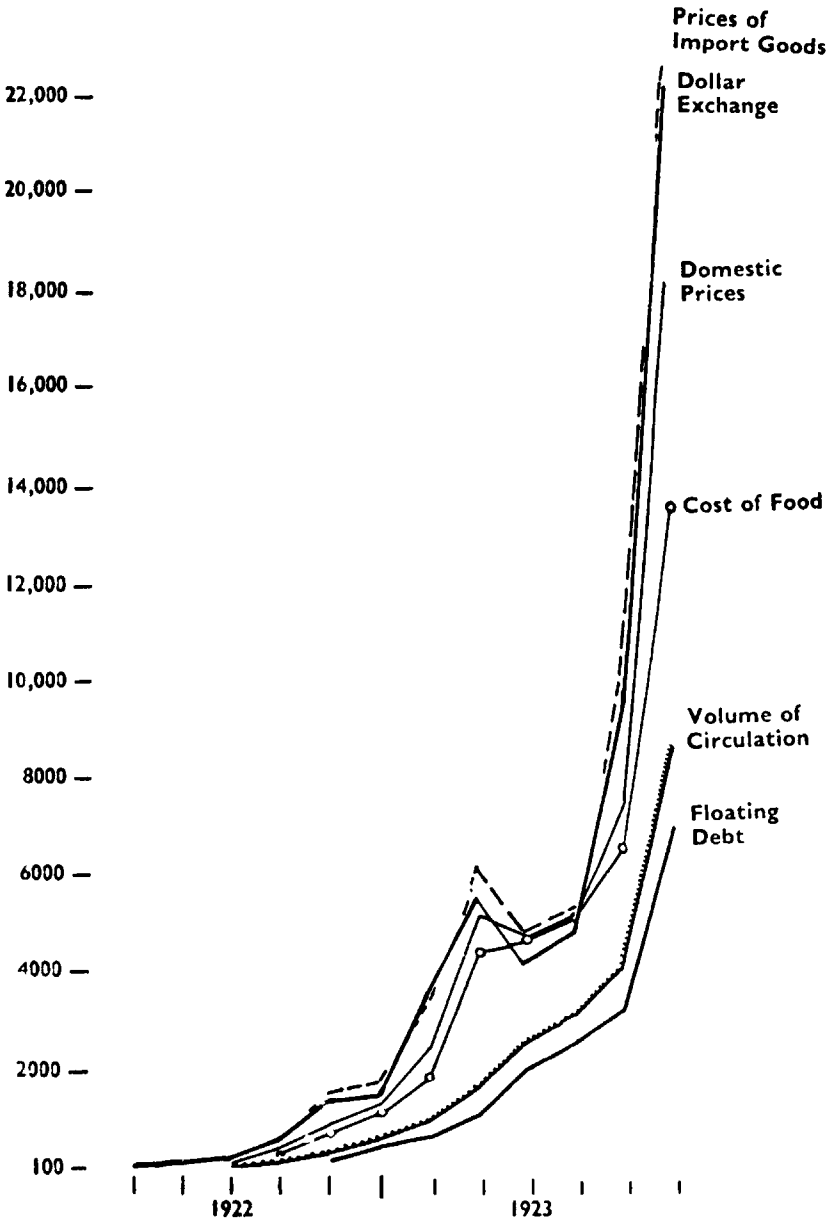


DIAGRAM VI.—Basis of all curves: July 1922 = 100

Scale of the Indexes of Dollar
Exchange, Wholesale Prices
and Cost of Living (1913=1)

Scale of the Volume
of Circulation

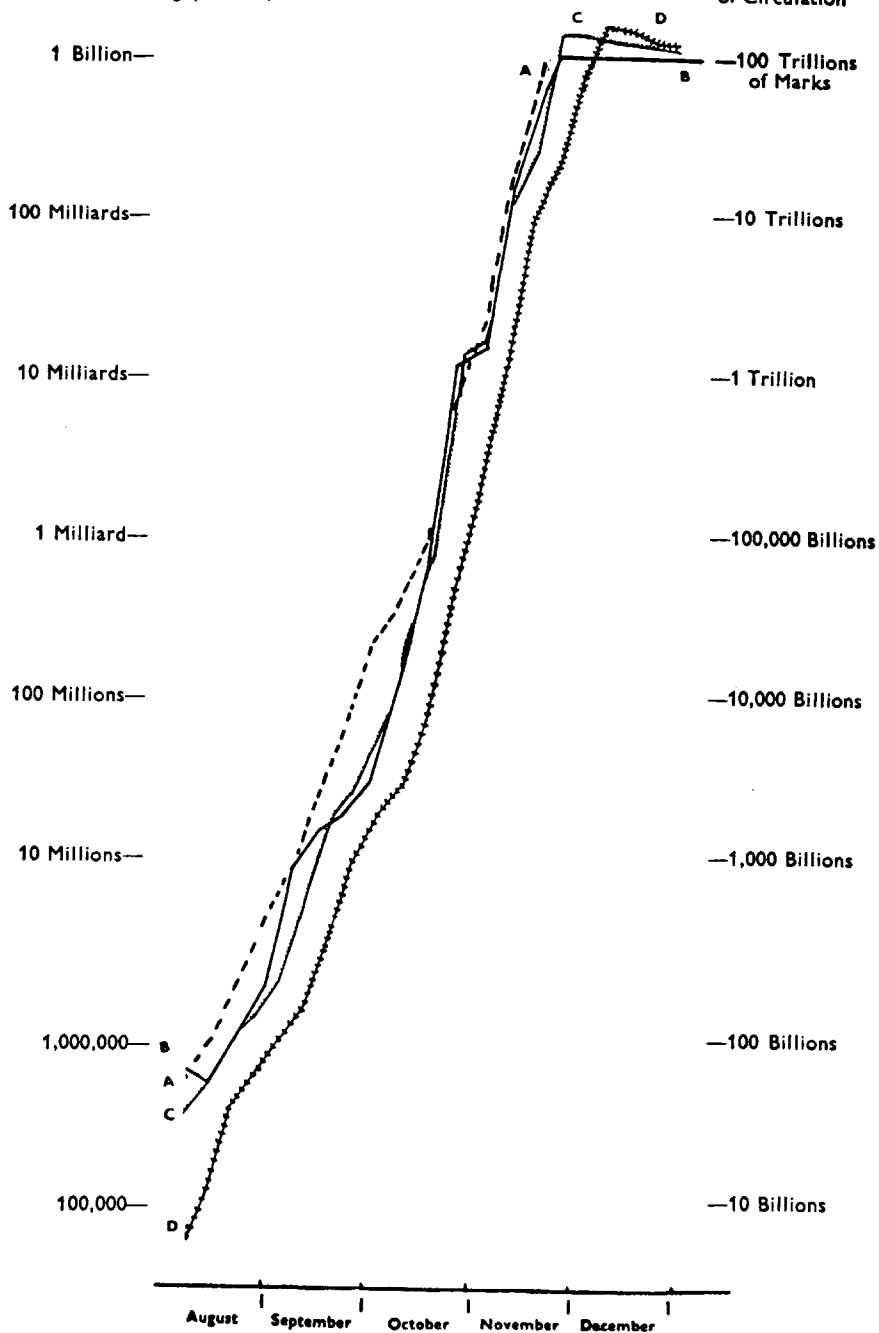


DIAGRAM VII.—A = volume of circulation
C = domestic prices

B = dollar exchange
D = cost of living

10. Past experiences invariably show that the increase of the quantity of paper money provokes a diminution of the purchasing power of the money; not uniformly, but in varying degrees according to the various kinds of goods, services or productive resources exchanged for money.*

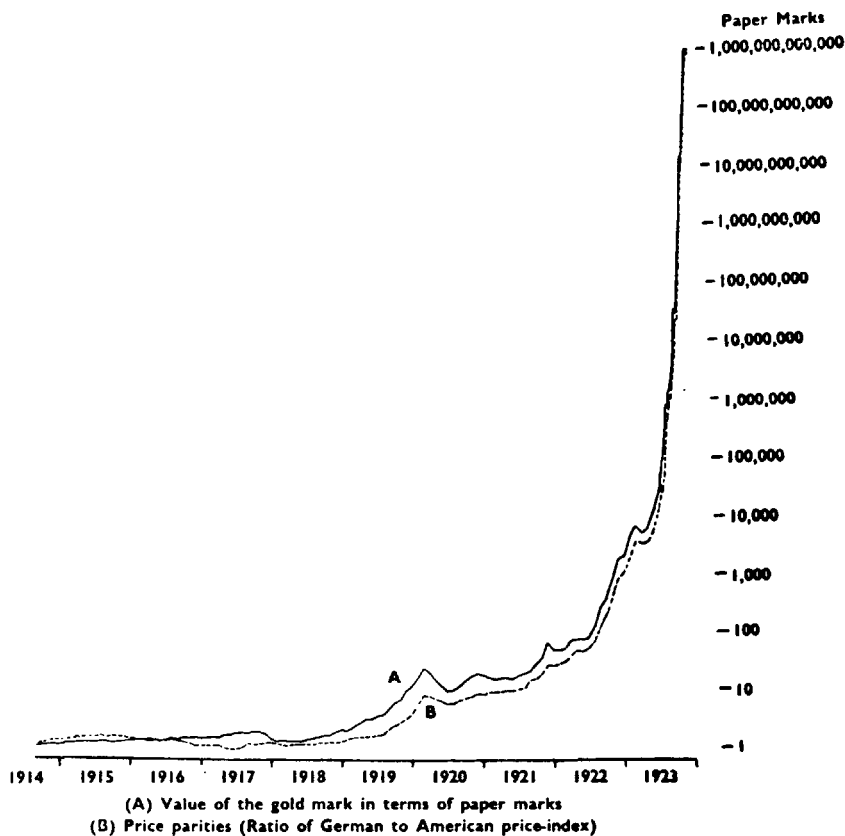
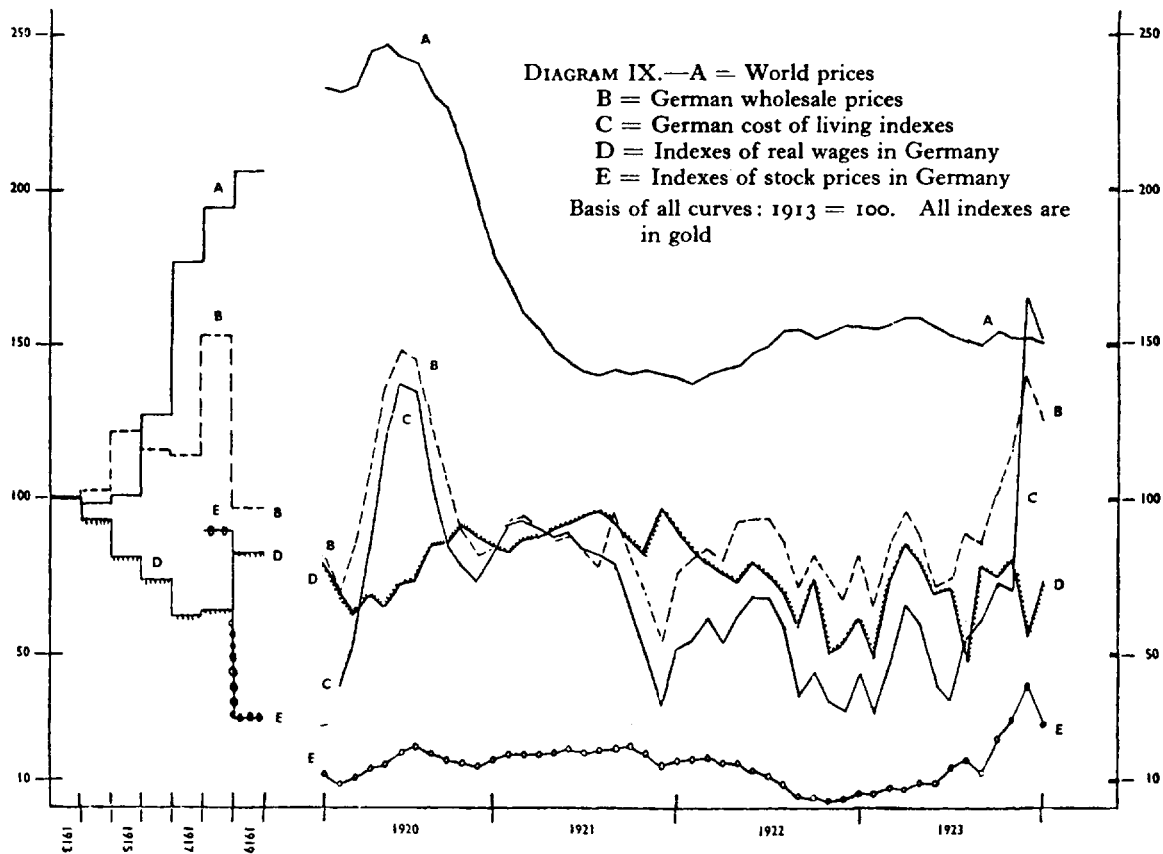


DIAGRAM VIII

In this matter the scale of depreciation which was compiled in 1864 by an American author for the greenbacks is of interest.† Supposing

* On the fluctuations of the different categories of prices in following the variations of the purchasing power of money see Mortara, "Effetti delle variazioni del potere d'acquisto dell'oro" (*Giornale degli Economisti*, 1931).

† Delmer, *The Great Paper Bubble*, 1864 (quoted by Hock, *Die Finanzen und die Finanzgeschichte der Vereinigten Staaten*, Stuttgart, 1867, p. 572).



Great Britain in the Reparations Commission and in the Guarantees Committee) according to which the fundamental cause of the depreciation of the mark was the Budget deficit, which provoked continued issues of paper money. I hold this second theory to be essentially correct, although it is necessary to recognize that in the last stages of the depreciation of the mark the relations between the Budget deficit, the quantity of paper money, prices, and the exchange became more complicated, as we shall see in the course of the present enquiry.

In certain writings of American economists one encounters the influence of the argument advanced by the Germans. For example, according to Professor Williams the causal order of events was the following: "Reparation payments, depreciating exchanges, rising import and export prices, rising domestic prices, consequent budgeting deficits, and at the same time an increased demand for bank credit; and finally increased note-issue."* Commenting on the work of Professor Williams, Professor Angell observed that "The reality of the type of analysis which runs *from* the balance of payments and the exchanges *to* general prices and the increased issue of paper seems to be definitely established."†

II. THE CONDITIONS OF THE NATIONAL FINANCES DURING THE WAR

4. Let us examine, in the light of the facts, the theory according to which the budget deficit was not the fundamental cause but the *effect* of the depreciation of the mark.

In the following table, in millions of marks, the total income and expenditure of the German Reich during the years 1914-1918 are indicated.‡

TABLE VIII

<i>Financial years</i>	<i>Government expenditure</i>	<i>Ordinary and extra- ordinary income</i>
1914	9,651	8,149
1915	26,689	23,207
1916	28,780	22,815
1917	53,261	35,215
1918	45,514	31,590
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	163,894	120,976
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* "German Foreign Trade and the Reparations Payments" (*Quarterly Journal of Economics*, 1922, p. 503).

† *The Theory of International Prices*, 1926, p. 195.

‡ *Statistisches Jahrbuch für das Deutsche Reich*, 1917-1921.

PART IV

I. PAYMENTS UNDER THE TREATY OF VERSAILLES

1. A special item in the German balance of payments was the payment of reparations. Numerous German economists and politicians have stated—an opinion accepted also by several economists outside Germany*—that the principal cause of the depreciation of the mark in the post-war years was the necessity for the German Government to create new money to pay reparations, or, more generally, to satisfy the financial obligations arising from the Treaty of Versailles. In his recent work Elster says that “the stages in the progress of the mark towards depreciation were the same stages which characterized the development of the arrangements between the Allies and the German Government with regard to reparations. . . . The ruin of the German mark was the work of the Allies, while the United States Government looked on in silence.”†

Doubtless, the burdens imposed on Germany by the Treaty of Versailles contributed to the deficit shown in the financial years 1920–1923, but as may be seen from German sources, they were not the only causes and never the most important.

In the following table‡ the figures of the deficit are shown (measured

TABLE XI
(Millions of gold marks)

<i>Financial year</i>	<i>Total</i>	<i>Expenses under the Treaty of Versailles</i>
1920	6,053·6	1,850·9
1921	3,675·8	2,810·3
1922	2,442·3	1,136·7
1923 (April–December)	6,538·3	742·4
	<hr/> 18,710·0	<hr/> 6,540·1

* For example, Cassel, *op. cit.*, p. 191.

† *Op. cit.*, pp. 130 and 214. On the other hand, it should be mentioned that some German writers expressed moderate judgment on the influence of reparations on the foreign exchanges—as, e.g., Professor Hirsch (*Deutschlands Währungsfrage*, 1924, p. 12). Also Professor Mises wrote: “The progressive depreciation of the mark could not be the effect of reparations payments; it is simply the result of the Government’s financing itself by issuing additional notes” (“Die geldtheoretische Seite des Stabilisierungsproblems,” *Schriften des Vereins für Sozialpolitik*, vol. 164, part ii, p. 31).

‡ See art. “Die Reichseinnahmen und Ausgaben in Geldmark” in *Wirtschaft und Statistik*, No. 9 of 1924.

APPENDIX OF TABLES

TABLE I*

*Income and Expenses of the Reich, 1919-23**(in millions of gold marks)*

1919	<i>Income</i>	<i>Expenditure</i>	<i>Increase in floating debt</i>
April	306·5	1,439·4	1,132·8
May	330·0	1,346·3	1,016·2
June	299·7	1,212·6	914·0
July	320·2	1,063·7	743·5
August	256·5	947·8	691·4
September	207·8	635·3	426·0
October	242·6	660·5	417·9
November	140·3	418·8	278·5
December	136·5	232·4	95·2
January	116·4	239·2	122·5
February	73·8	105·9	31·8
March	128·8	257·8	129·2
	<hr/>	<hr/>	<hr/>
	2,559·1	8,559·8	5,999·0
1920	<i>Income</i>	<i>Expenditure</i>	<i>Increase of floating debt</i>
April	52·0	307·9	247·8
May	102·2	694·8	584·5
June	193·5	1,441·6	1,240·0
July	256·1	1,279·3	1,015·1
August	191·7	791·7	591·9
September	176·8	817·2	632·3
October	197·8	348·8	142·9
November	241·1	629·1	379·9
December	411·3	722·7	303·3
January	434·9	613·5	170·5
February	460·3	899·4	431·9
March	460·4	782·9	314·4
	<hr/>	<hr/>	<hr/>
	3,178·1	9,328·7	6,053·6

* The figures after 1919 have been taken from the official publication, *Deutschlands Wirtschaft, Währung und Finanzen*, Berlin, 1924, p. 31. Those for 1919 are deduced from Jessen's work, *Staatsfinanzen 1914-22* (Berlin, 1923). They also include the income derived from postal and railway administration, while beginning from 1920 the figures in Table 1 include only taxes.

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TABLE I (continued)

1921			<i>Income</i>	<i>Expenditure</i>	<i>Increase of floating debt</i>
April	352·3	773·2	416·9
May .. ..	..	..	411·8	686·0	270·2
June .. ..	..	..	350·3	862·3	508·0
July .. ..	..	..	304·8	617·8	309·0
August .. ..	..	..	256·3	863·2	602·9
September .. ..	..	..	196·5	506·0	305·5
October .. ..	..	..	173·0	384·5	207·5
November .. ..	..	..	112·5	254·6	138·1
December .. ..	..	..	175·3	626·5	447·2
January .. ..	..	..	192·6	388·2	191·6
February .. ..	..	..	194·2	342·4	144·2
March .. ..	..	..	207·8	346·5	134·7
			<u>2,927·4</u>	<u>6,651·3</u>	<u>3,675·8</u>
1922			<i>Income</i>	<i>Expenditure</i>	<i>Increase of floating debt</i>
April .. ..	..	..	190·3	321·8	129·8
May .. ..	..	..	254·9	376·9	120·3
June .. ..	..	..	235·1	313·8	77·0
July .. ..	..	..	183·4	208·5	23·4
August .. ..	..	..	116·4	205·1	86·9
September .. ..	..	..	90·8	434·9	342·5
October .. ..	..	..	66·2	269·5	201·6
November .. ..	..	..	60·6	199·8	137·5
December .. ..	..	..	73·4	438·0	362·9
January .. ..	..	..	65·9	204·6	137·0
February .. ..	..	..	50·8	279·0	226·5
March .. ..	..	..	100·3	698·9	596·9
			<u>1,488·1</u>	<u>3,950·6</u>	<u>2,442·3</u>
1923*			<i>Income</i>	<i>Expenditure</i>	<i>Increase of floating debt</i>
April .. ..	..	..	150·6	466·6	316·0
May .. ..	..	..	123·3	284·7	161·4
June .. ..	..	..	48·2	496·4	448·2
July .. ..	..	..	48·3	473·9	425·6
August .. ..	..	..	78·1	1,013·1	914·7
September .. ..	..	..	55·6	1,661·8	1,564·1
October .. ..	..	..	14·5	881·8	860·1
			<u>518·6</u>	<u>5,278·3</u>	<u>4,690·1</u>

* The figures for 1923 are somewhat uncertain because of the difficulty of converting sums expressed in paper marks into gold marks at a time of rapid depreciation of the money (see Appendix to Chapter III of this volume). The gold figures for October were calculated by the Statistical Bureau of the Reich by dividing the sums of paper marks by the average exchange rate of the gold mark calculated for every ten days.

Appendix

Table I. Weimar finance

	1	2	3	4	5	6	7	8	9
	NNP	Reich revenue	Reich expend- iture	Repar- ations	Repar- ations as % of Reich expend- iture	Reich deficit	Reich deficit as % of NNP	Total expendi- tures	Total public spending as % NNP
1919	34200	2496	8643			-6054	-17.7	14600	42.7
1920	37700	3171	7098	1236	17.4	-6092	-16.2	16000	42.4
1921	40400	6237	10395	3369	32.4	-4939	-12.2	14800	36.6
1922	42100	4032	6240	2226	35.7	-3953	-9.4	10100	24.0
1923	37900	1785	6543	801	12.2	-8431	-22.2	17900	47.2
1924	44500	4869	4894	281	5.7	-25	-0.1	13600	30.6
1925	67346	4958	5321	1080	20.3	-363	-0.5	16731	24.8
1926	65472	5633	6561	1310	20.0	-928	-1.4	20520	31.3
1927	80466	6697	7154	1779	24.9	-457	-0.6	22513	28.0
1928	83964	6992	8375	2178	26.0	-1383	-1.6	25271	30.1
1929	79491	7215	8042	1965	24.4	-827	-1.0	25685	32.3
1930	71862	7098	8163	1879	23.0	-1065	-1.5	25526	35.5
1931	58484	6059	6548	651	8.6	-489	-0.8	21779	37.2
1932	50782	5448	5819	183	3.1	-371	-0.7	18817	37.0

Notes

Cols. 1, 2, 3, 4, 6 and 8 are in millions of gold marks (1919-23) or reichmarks (1924-32).

Sources

Col. 1: Witt, 'Finanzpolitik', pp. 425f.; Hoffman *et al.*, *Wachstum*, pp. 255f.

Col. 2: Webb, *Hyperinflation*, p. 33; Balderston, *Economic Crisis*, p. 226.

Col. 3: Bresciani, *Inflation*, pp. 437f.; Webb, *Hyperinflation*, p. 37; Balderston, *Economic Crisis*, p. 226.

Col. 4: Holtfrerich, *Inflation*, p. 147; Webb, *Hyperinflation*, pp. 37, 108; Schuker, "American Reparations", pp. 378f.; Balderston, *Economic Crisis*, p. 239.

Col. 5: Col. 4 as percentage of Col. 3.

Col. 6: Col. 2 minus Col. 3

Col. 7: Col. 6 as percentage of Col. 1.

Col. 8: Witt, 'Finanzpolitik', pp. 425f.; Balderston, *Economic Crisis*, p. 217.

Col. 9: Col. 8 as percentage of Col. 1.

Table 2. The balance of payments, 1919-1932

	1	2	3	4	5	6	7	8	9	10
	NNP	Trade bal- ance	Trade bal- ance as % NNP	Ser- vice bal- ance	Net inter- est pay- ments	Repar- ations	Repar- ations as % NNP	Net gold bal- ance	Net capital move- ment	Net capital move- ment as % NNP
1919	34200	-4131	-12.0	160	0	-435	-1.3	300	4106	12.0
1920	37700	3	0.0	160	0	-1236	-3.3	300	773	2.1
1921	40400	-692	-1.7	160	0	-3369	-8.3	300	3601	8.9
1922	42100	-2230	-5.3	160	0	-2226	-5.3	300	3996	9.5
1923	37900	-5	0.0	160	0	-801	-2.1	300	346	0.9
1919-19	192300	-7055	-3.7	800	0	-8067	-4.2	1500	12822	6.7
1924	50220	-1816	-3.6	274	159	-281	-0.6	-1255	2919	5.8
1925	67346	-2444	-3.6	462	-6	-1057	-1.6	-90	3135	4.7
1926	65472	793	1.2	532	-173	-1191	-1.8	-568	607	0.9
1927	80466	-2960	-3.7	645	-345	-1584	-2.0	452	3792	4.7
1928	83964	-1311	-1.6	672	-563	-1990	-2.4	-931	4123	4.9
1929	79491	-44	-0.1	712	-800	-2337	-2.9	165	2304	2.9
1930	71862	1558	2.2	538	-1000	-1706	-2.4	120	490	0.7
1931	58484	2778	4.8	450	-1200	-988	-1.7	1653	-2693	-4.6
1932	50782	1052	2.1	265	-900	-160	-0.3	256	-513	-1.0
1924-32	608087	-2394	-0.4	4276	-4987	-11013	-1.8	-198	14164	2.3

Notes

Cols. 1, 2, 4, 5, 6, 8 and 9 are in millions of gold marks (1919-23) or reichmarks (1924-32).

Trade figures are estimates based on incomplete monthly data in the *Monatliche Nachweise*.

Figures for reparations are for total treaty expenses, including occupation costs and payments in kind. This may exaggerate slightly the burden on the balance of payments.

Figures for capital movements are estimates.

Sources

Col. 1: Witt 'Finanzpolitik', pp. 424f. Hoffman *et al.*, *Wachstum*, p. 826.

Cols 2, 4, 5, 6, 8 and 9: *Monatliche Nachweise*; Bresciani, *Inflation*, pp. 85, 234; Graham, *Hyperinflation*, p. 265; Laursen & Pedersen, *Hyperinflation*, pp. 69, 101; Holtferich, *Inflation*, p. 212; Schuker, "American Reparations", pp. 378f.; Hoffmann *et al.*, *Wachstum*, pp. 817ff.; Webb, *Hyperinflation*, pp. 33, 37, 108.

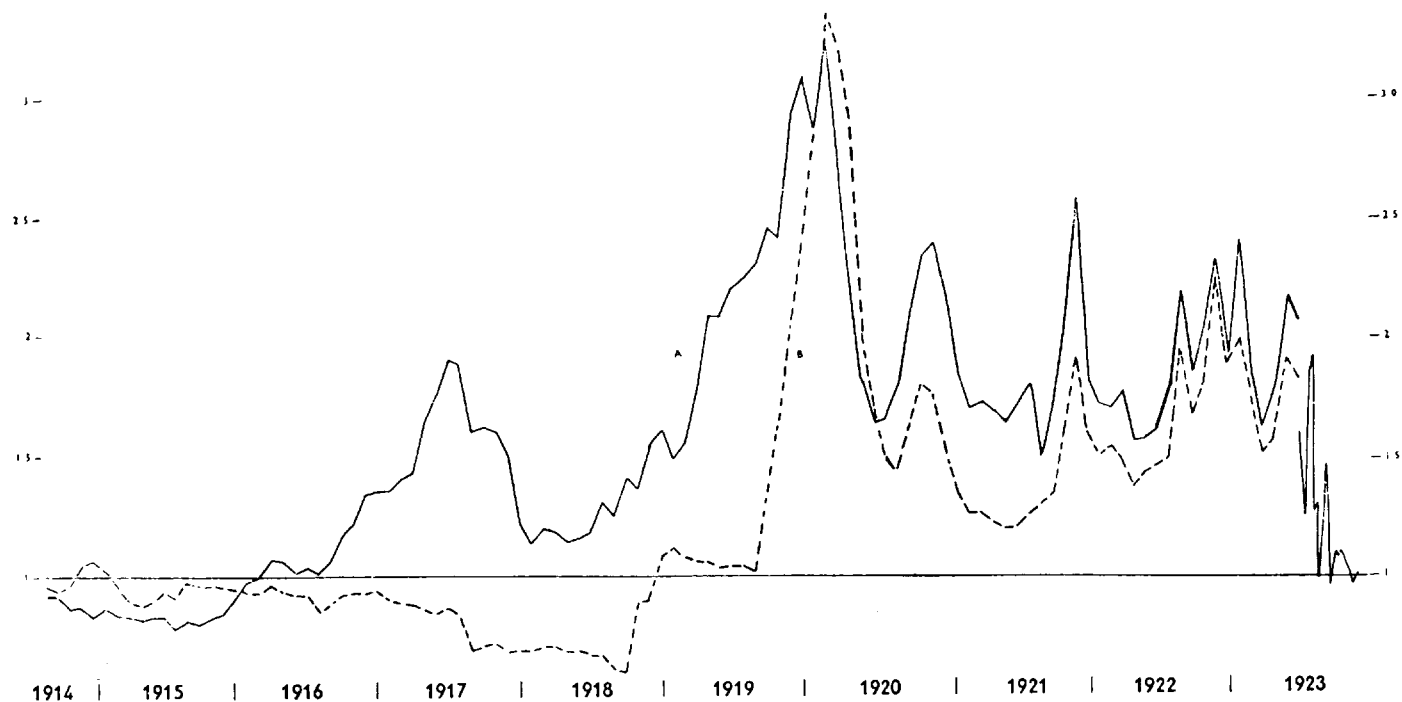


DIAGRAM X.—Coefficients of divergency between the external and the internal value of the mark. A According to America's wholesale prices. B According to the prices of goods imported into Germany

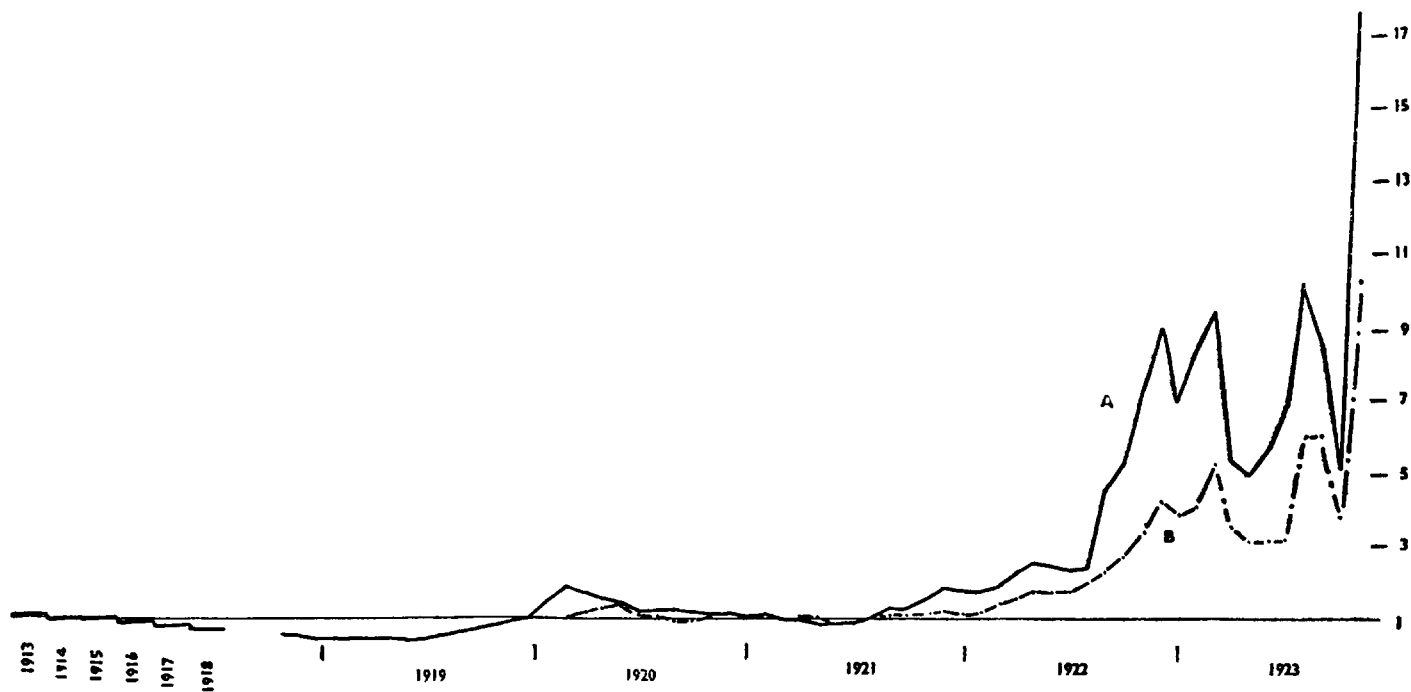


DIAGRAM XI.—Velocity of circulation of money (1913 = 1)

A. According to wholesale prices.

B. According to retail prices.

great quantity of marks and at home of important credits in paper marks in favour of foreigners in German banks (the total in paper marks towards the end of 1920 was said to be 30 milliards) was a circumstance which imperilled the success of attempts at the stabilization of the German mark. But thanks to the depreciation which occurred in 1923, the value of paper marks possessed by foreigners was practically reduced to zero; (b) the existence of a great mass of short-term floating debt is a very important circumstance which must be taken into account when the stabilization of a currency is attempted. Now, every difficulty of this kind had been eased in Germany by November 1923; the entire floating debt having been reduced to scarcely 200 million gold marks.

16. The facts expounded in the preceding paragraphs explain the "miraculous" event of the sudden stabilization of the German exchange. The most important factor was *the continual fall in the real value of the quantity of paper marks in circulation*. Already towards the end of 1922 this real value had become less than the value of the gold reserve of the Reichsbank.

Similarly, in certain other countries, where the legal currency fell to very low levels, the gold cover of the notes (the gold being valued according to the foreign exchanges) was much greater than in countries where the currency depreciation had not gone to such lengths.*

From that arose the apparently paradoxical result that it became easier to redeem or convert paper money the more rapidly the paper inflation proceeded. In Germany in the second half of 1922, if the management of the Reichsbank had not obstinately refused to touch the gold reserves --of which later a large part was wasted during the "Passive Resistance" --it would have been possible to stabilize the exchange, re-establishing the convertibility of notes. Because of the great need for circulating medium few notes would have been actually presented for conversion. Naturally, the fundamental condition for the success of this operation would have been the suspension of note-issues for the Government.

* The figures below illustrate this point (source: *Memorandum sur les banques centrales*, League of Nations, Geneva, 1924, p. 32):

Gold Reserve of Banks of Issues (percentage of the total real value of notes)

End of	..	1913	1918	1920	1921	1923
France	..	61·6	11·9	30·8	24·4	35·8
Italy	..	60·2	10·9	29·6	24·9	28·8
Belgium	..	23·3	9·3	13·1	10·8	15·1
Germany	..	45·1	20·1	25·9	40·4	95·0
Poland	..	—	—	3·7	8·1	97·4

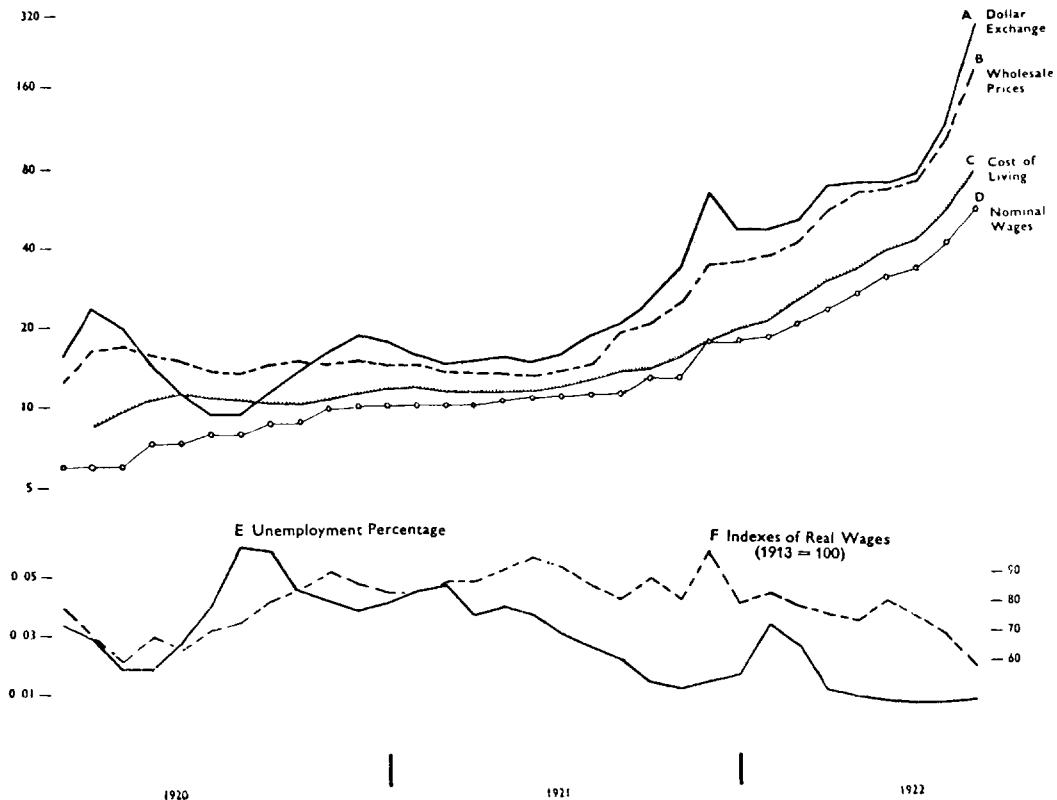


DIAGRAM XVIII.
Working-class Income and the Inflation.

In the summer of 1922 unemployment practically disappeared. It appears that—in spite of the gaps caused by the war in the ranks of the working population—the total number of individuals occupied in industry, agriculture, commerce, public services, etc., was greater in 1922 than before the war.

In the following diagram (XII) the continuous line shows the dollar rate, and the two broken lines represent the percentage of unemployed

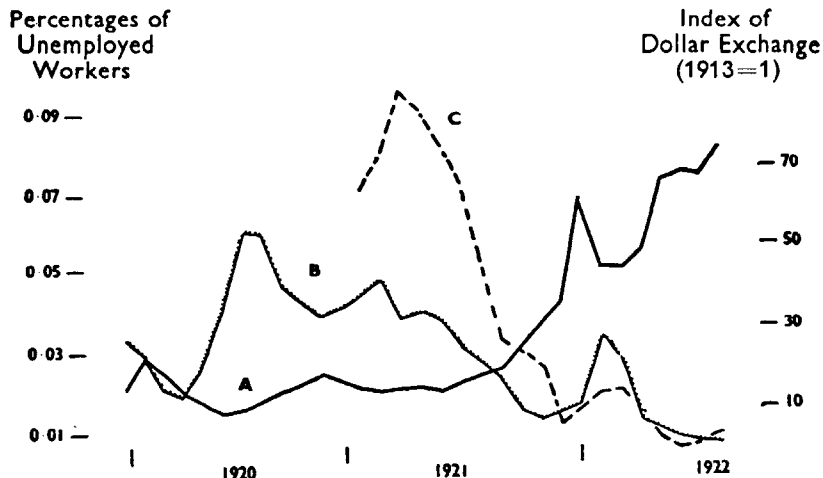


DIAGRAM XII.—A. Index of dollar exchange
B. Percentage of unemployed workers
C. Part-time workers

workers among the members of German Workers' Associations (workers totally unemployed, and workers partially unemployed). The contrary movements of the dollar rate curve and the unemployment curves are evident from the second half of 1921, when the German mark, after a period of relative stability, began to depreciate rapidly.

The diagram also offers proof of a characteristic connection between the variations of the exchange rate and the variations of unemployment. The fluctuations of the mark caused a continual instability in the conditions of German production, an alternation of periods of feverish activity and periods of restraint and business crises. It may be seen that, generally, to every improvement of the mark there corresponded an increase of unemployment (March–July 1920; November 1920–February 1921; December 1921–January 1922), and that every depreciation of the exchange was followed by an improvement in the

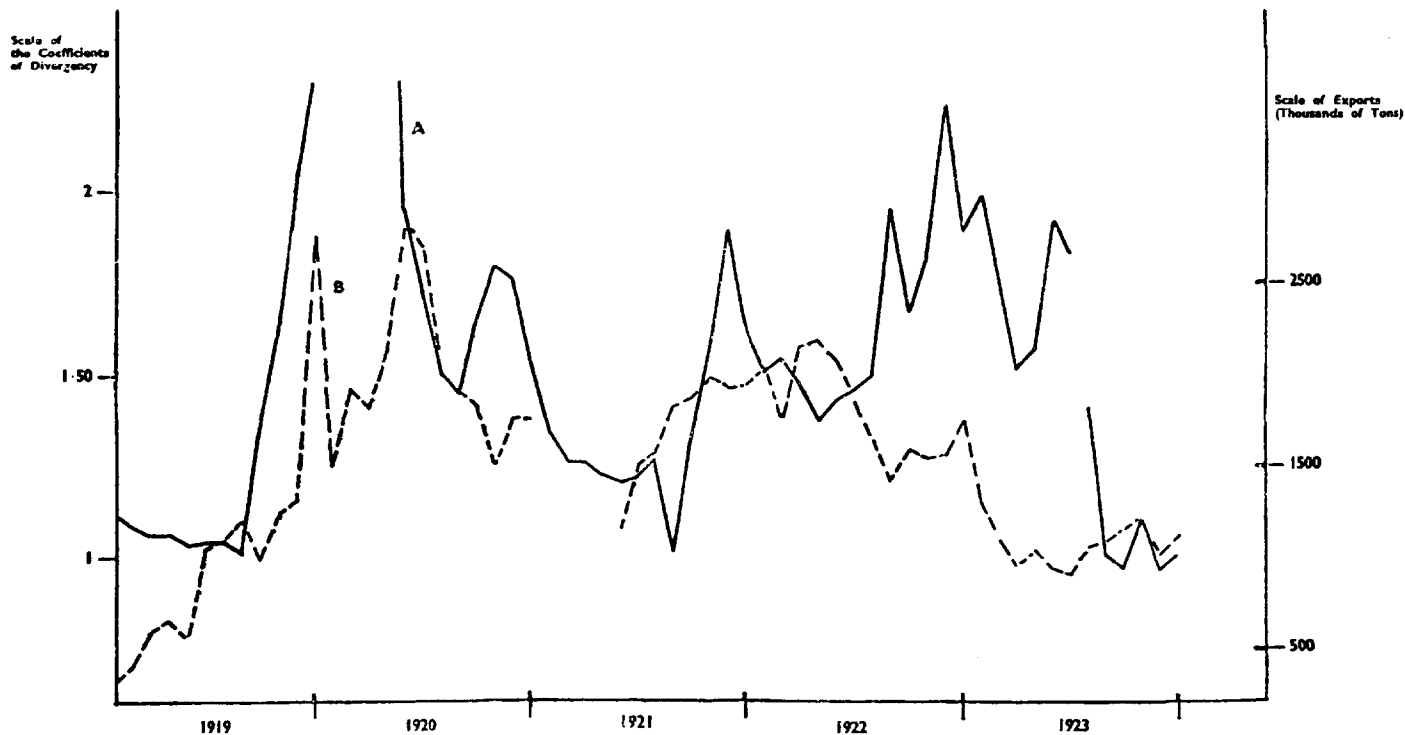


DIAGRAM XIII.—A. Coefficients of divergency between the internal and the external value of the mark
B. Exports

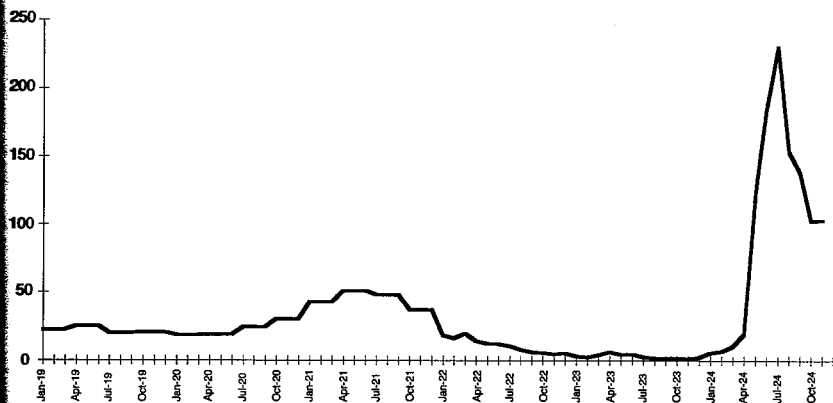


Figure 7.3 Bankruptcies and receiverships, 1919–1924 (monthly average, 1913 = 100)

Sources: *Frankfurter Zeitung*, Nr. 966, 28.12.24; Graham, *Hyperinflation*, p. 280; Webb, *Hyperinflation*, p. 99.

The monetary and fiscal reforms achieved by Schacht and Luther completed the economic 'shake-out' which had been deferred throughout the post-war years, but which had begun to occur piecemeal as a consequence of the real monetary contraction caused by hyperinflation. Schacht's credit squeeze emerges as the decisive factor from the statistics on bankruptcy and receivership, which soared to a peak between April and July 1924 (see figure 7.3). Not without cause did the financial press speak of a '*Generaldirektordämmerung*'.²⁰⁹ Ship-building output fell by at least 15 per cent in 1924 as Luther ended the reconstruction subsidies.²¹⁰ Yet in many respects the process of stabilisation was less severe in the private sector than might have been expected. The total number of bankruptcies in Hamburg in 1924 was only slightly more than in 1913.²¹¹ Similarly, national figures suggest that industrial output increased in most sectors after the trough caused by hyperinflation and the Ruhr crisis,²¹² while unemployment fell rapidly from its peak in December 1923/January 1924.²¹³

²⁰⁹ *Frankfurter Zeitung*, Nr. 962, 25.12.24. The most celebrated victim was Stinnes's empire, the disintegration of which followed hard on the heels of his death; see Feldman, *Iron and Steel*, pp. 454ff.; *idem*, *Great Disorder*, p. 844.

²¹⁰ See figure 1.2. This principally reflected the cut in subsidies implemented by Luther; BAP, RFM 46580 N. Reg. 317/250, Aktenvermerk über eine Besprechung im Reichsministerium für Wiederaufbau, Abteilung Schifffahrt, 13.11.23. Blohm & Voß cut its workforce from 8,755 in July 1923 to just 6,718 twelve months later.

²¹¹ Lyth, *Hyperinflation*, p. 165.

²¹² See figures 2.4, 2.5, 2.6 and 2.7.

²¹³ See figures 2.10 and 3.1.

III. THE CLOSE CONNECTION BETWEEN SHARE PRICES AND THE DOLLAR RATE IN 1920 AND 1921

5. Table xxx and Diagrams xv and xvi show that in 1920 and 1921 the index number of share prices expressed in paper marks varied in close relation with the exchange rate of the dollar.

At times of rapid depreciation of the mark, as e.g. in the autumn of 1921, the index number showed a sharp rise. All shares, and not only particular groups, shared in the ascending movement.

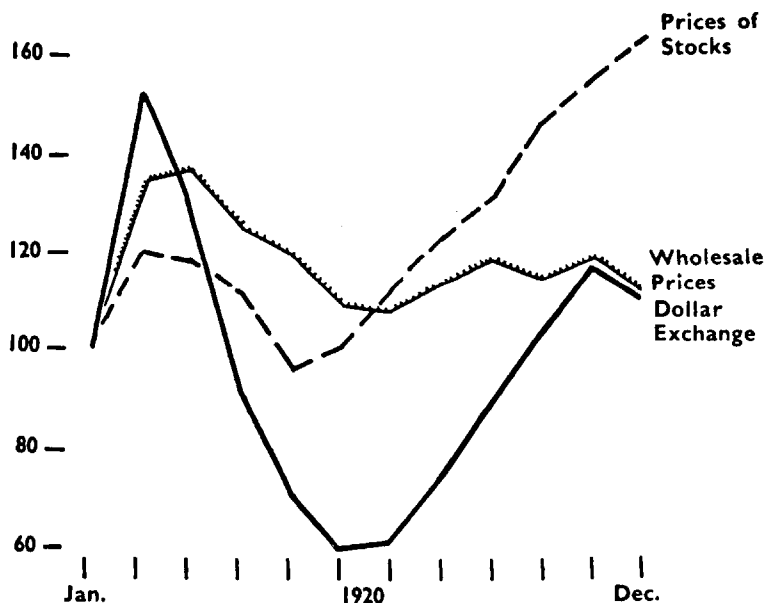


DIAGRAM XV.—Basis for all curves: January 1920 = 100

It was observed in Germany, as also, indeed, elsewhere, that the circle of speculators was greatly enlarged. Shares were held by speculators in a much larger measure than formerly, when they for the most part had been held longer by investors, who considered them as permanent investments. But in 1920 and 1921 shares passed rapidly from hand to hand, and oscillations of their prices were much more frequent and more violent than formerly.

The impulse to this movement began with the variations of the value of paper money, which kept the industrial securities' market in a state of continual instability.

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It was in the autumn of 1921 that business on the German Bourse reached such a condition as to "put in the shade even the classical examples of the most violent fever of speculation." The technical

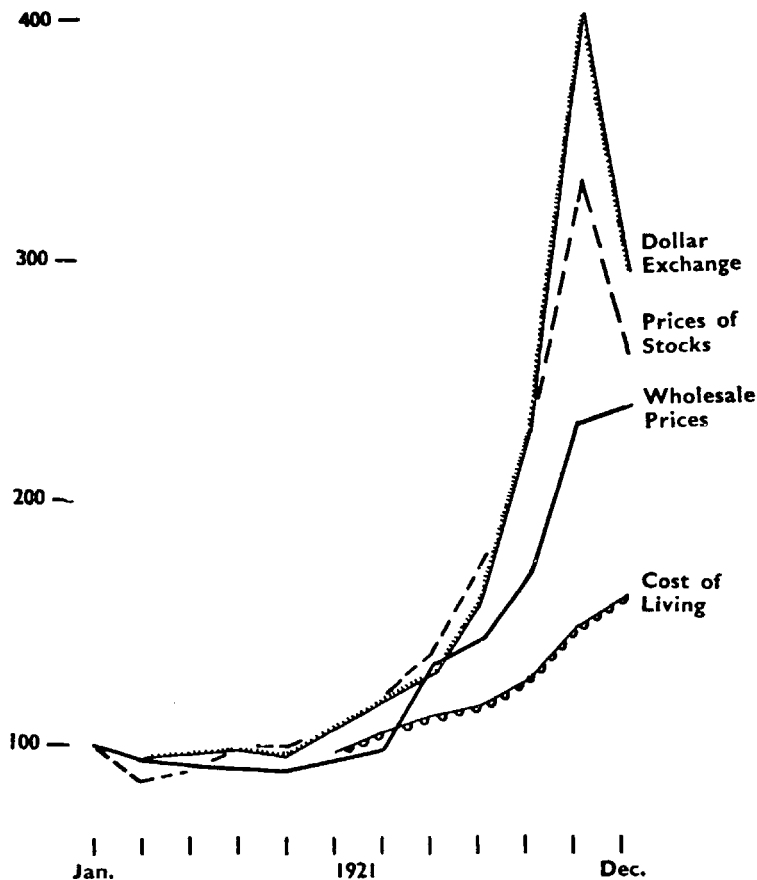


DIAGRAM XVI.—Basis for all curves: January 1921 = 100

equipment of the German exchanges was insufficient for the increasing mass of transactions. Speculation on the Bourse also necessitated an extension of banking equipment; the existing banks were obliged to increase continually the numbers of their employees; and many small new banks, whose sole object was the receiving and executing of

THE ECONOMICS OF INFLATION

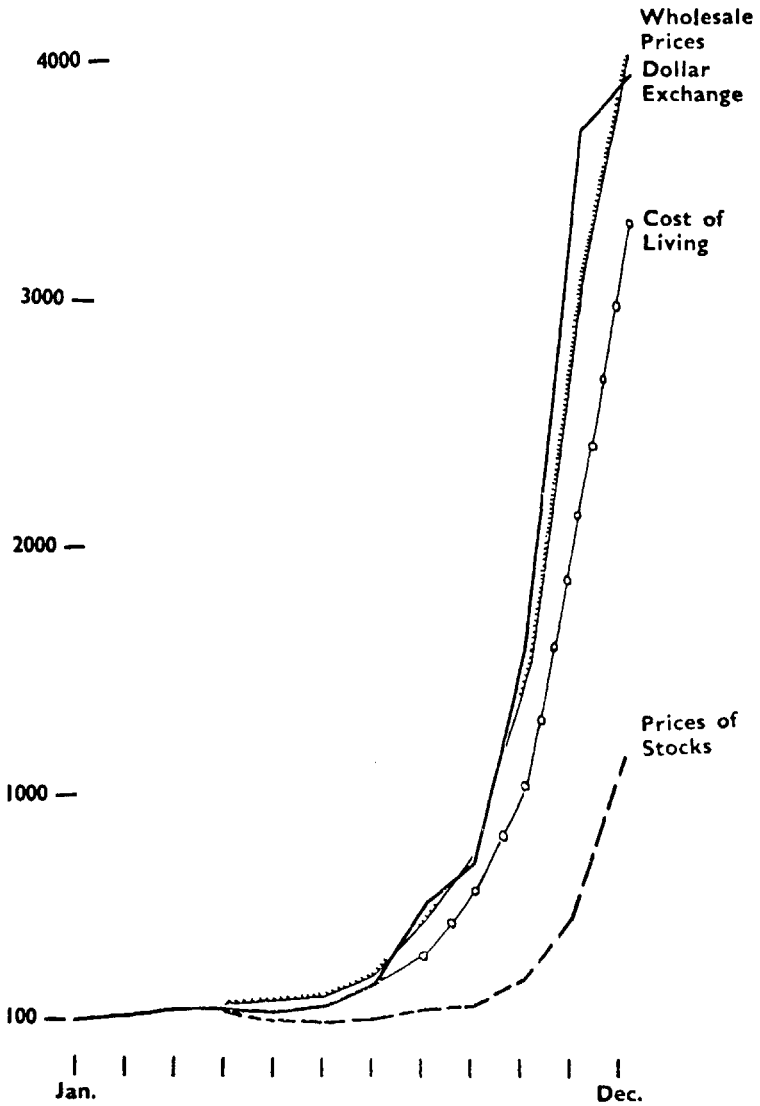


DIAGRAM XVII.— Basis for all curves: January 1922 = 100

Indexes of Dollar
Exchange and of
Nominal Wages
(1913 = 1)

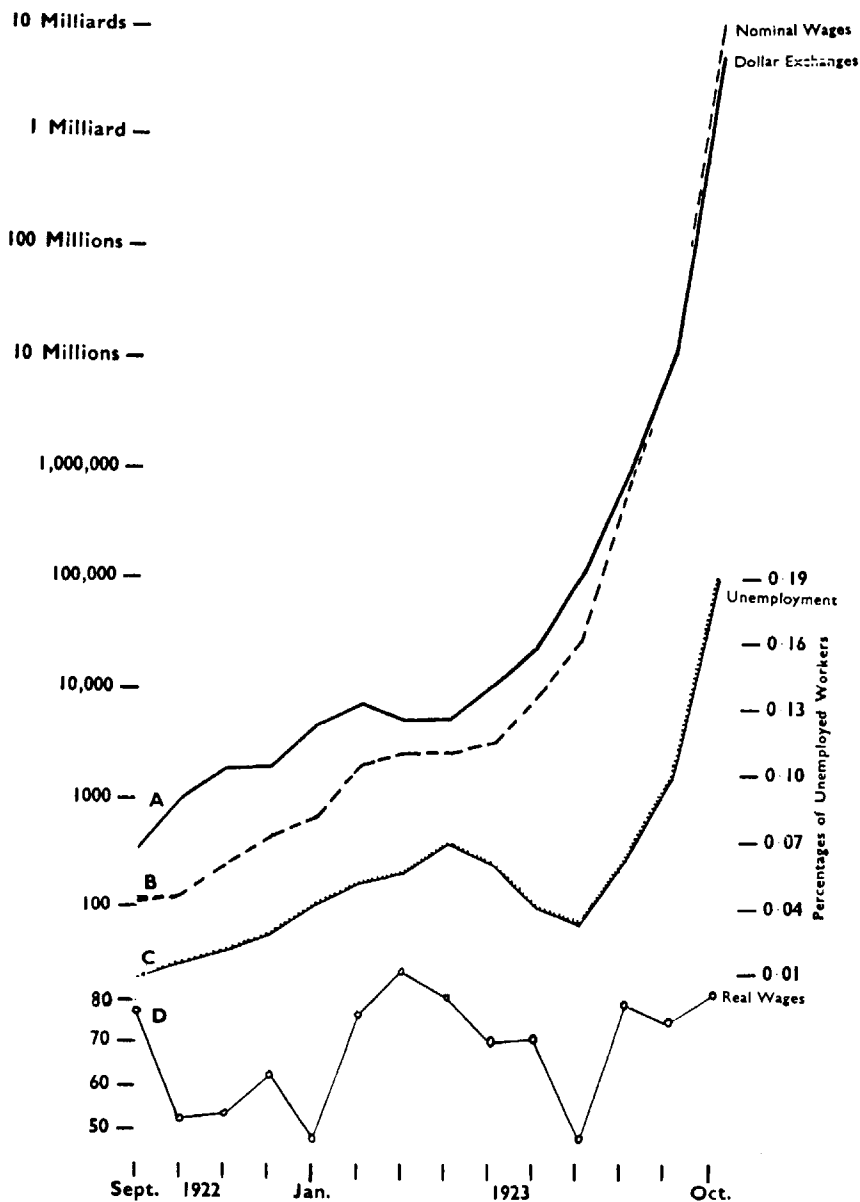


DIAGRAM XIX.—Indexes of real wages (1913 = 100)

VI. THE VARIABILITY OF WORKERS' INCOMES DURING THE INFLATION

12. According to the Statistical Bureau of the Reich, the wages of miners were 47·7 per cent of the pre-war wage in January 1923, 86·2 per cent in March, 47·6 in July, and 81·2 in October. Even greater and more frequent differences may be seen by an examination of real weekly wages, as shown in Diagram xx, in which is represented the movement of real weekly wages (time-rates) of workers employed in the metal industries of Thuringia, according to data accurately calculated by a German writer.*

Owing to the great variability of wages, the loss of economic welfare

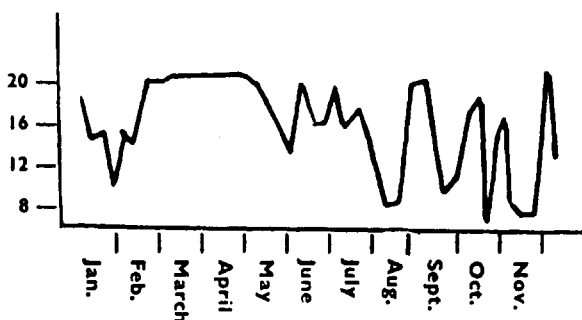


DIAGRAM XX.—Weekly wages of workers (metal industry) in Thuringia in 1923, in gold marks (nominal wages in paper marks divided by the index of cost of living)

suffered by the working classes as a result of the depreciation of the currency was even greater than that resulting from the difference between the average real wage during the inflation and the average pre-war real wage.

The influence of unemployment on the income of workers must also be taken into account. In contrast to what happened in the preceding years, at the beginning of the second half of 1922 the depreciation of the mark and the increase in prices were accompanied by an *increase* in unemployment, as will be seen in Diagram ix.†

13. It may seem strange that the same cause (the monetary depreciation) gave rise to different effects. The apparent contrast is explained if one remembers that the monetary depreciation stimulated the demand for labour when there was a time-lag between the rise in wholesale

* Soecknick, *Die Löhne in der Nachkriegszeit*, 1926, p. 37.

† This was also shown in other countries with a depreciated currency after the rise in prices had reached a certain limit (see art. "La Crise du Chômage" in the *Revue Internationale du Travail*, 1924).

prices and the rise in wages; but it ceased to have this influence when wages, becoming more sensitive, rose simultaneously with prices.

If the unemployment curve is compared with the curve of the ratio between the index number of nominal wages and the index number of wholesale prices, it is seen that there is a valid statistical relation for

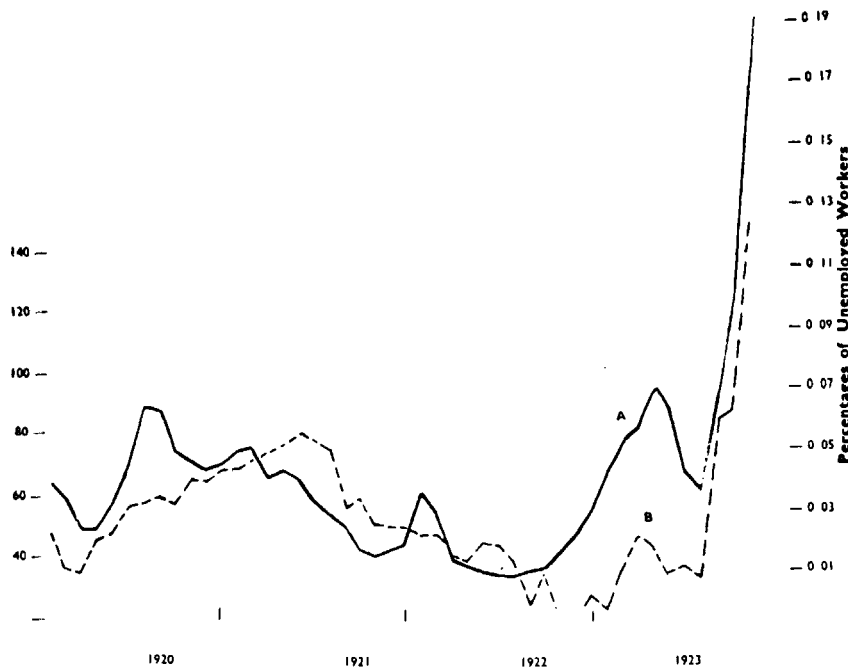


DIAGRAM XXI.—A. Unemployment. B. Rates of wage-rates to wholesale prices

the whole period of the inflation as shown in Diagram XXI. It is apparent that for the most part unemployment tended to decline at times when the ratio between the index number of nominal wage rates and the index number of prices fell, while it increased when that ratio rose.*

14. The calculation of the *income* of workers during the inflation cannot be attempted. The uncertainty of some of the elements which

* I do not intend to argue from this that the rise in nominal wages was the only or even the most important cause of unemployment in 1923. It was the result of the serious disorganization of the German economy, which was provoked by economic causes such as the depreciation of the mark and by political causes such as the occupation of the Ruhr.

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working class and of Government employees.* Doctors, for example, had relatively little work from private patients, and health insurance

Gold Marks

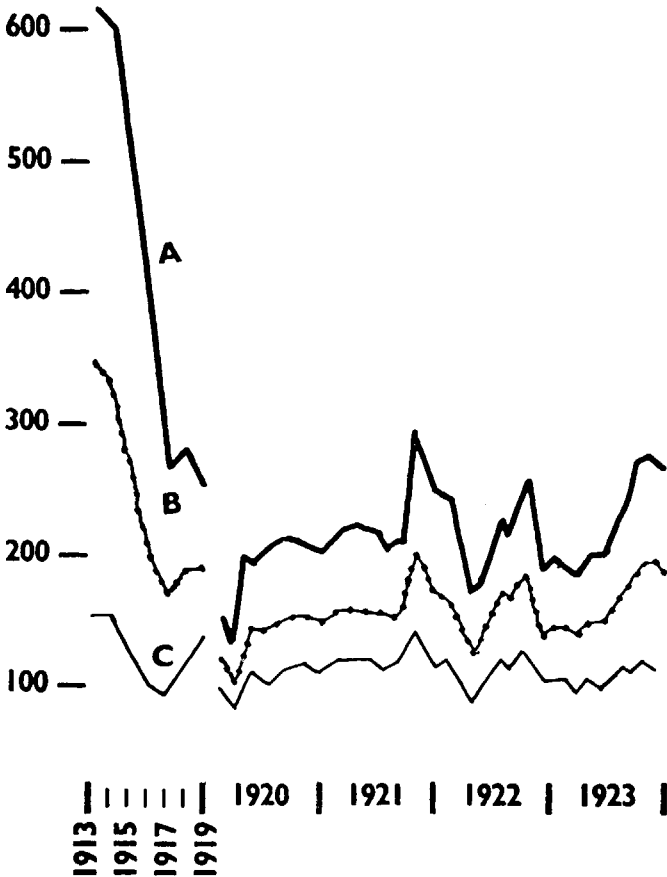


DIAGRAM XXII.—Real salaries of State Officials

companies, in the depths of a financial crisis caused by the depreciation

* H. Guradze and K. Freudenberg, in the article "Das Existenzminimum des geistigen Arbeiters," *Jahrbücher für Nationalökonomie*, 1923, calculated that in 1922 and 1923 the income of the brain-worker was below the subsistence minimum.

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during the inflation—perhaps because of the decline in the consumption of alcoholic beverages?—and increased once more in the following

TABLE XXXVII
Index Numbers of Crime

(Total number of criminals, i.e. "Verbrechen" and "Vergehen." 1882 = 100)

	1913	1921	1923	1924	1925
Total number of crimes ..	117	136	170	150	122
Crimes committed by men ..	123	137	179	158	129
Crimes committed by young men	125	173	212	153	87

years. The stabilization had a favourable influence on certain forms of crime, causing a heavy fall in those crimes which had their roots in poverty; but those of other kinds, such as social crimes, continued to show an alarming increase.

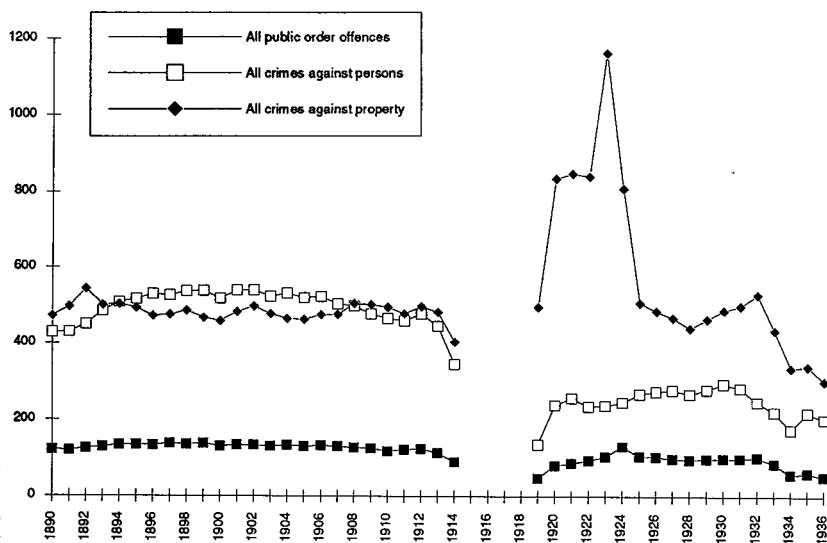


Figure 4.10 Crime rates, 1890–1936 (per 100,000 citizens)

Source: Hohorst et al. (eds.), *Sozialgeschichtliches Arbeitsbuch*, II, pp. 168ff.; Petzina et al. (eds.) *Sozialgeschichtliches Arbeitsbuch* III, pp. 137ff.

since the war – for example, against smuggling – tended to diminish respect for the law, since these were so difficult to enforce, and created opportunities for bribery.²⁵⁶ In October 1919, Keynes voiced the widespread view that there had been an increase in official corruption since the war: ‘Everybody in Germany [. . .] who is concerned with the movement of goods now takes bribes, and Germany, which was formerly quite incorruptible in this respect, is getting down to the Russian level.’²⁵⁷ The American Consul in Hamburg echoed this:

A great deal is heard among businessmen about the lack of honor and integrity among the official classes as well as working men, a trait that prior to the war was the pride of all Germans. Among the railway operatives, customs employees and many other branches of the Government service, conditions exist that parallel those in Mexico. Formerly no one would think of offering a bribe to any railway or customs employee, but now [. . .] each and every one has his price and bribes must be paid in order to do business.²⁵⁸

Even the customary social manners of bourgeois society appeared to be under attack. Schramm’s uncle regarded it as an affront to his

²⁵⁶ See the reports of smuggling in GStA, Rep. 84a Justizministerium, 4878/1a, Sitzung [. . .] betreffend Kontrolle des Küstenverkehrs durch die Kriegsmarine, 30.10.19.

²⁵⁷ Keynes, *Collected Writings*, XVII, pp. 134f.

²⁵⁸ NAW, RG 59, 862.00/807, Stewart to State Dept., 12.2.20.

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was 167·5 millions in December 1923 and 121·9 millions in January 1924). However, the increase in receipts was mainly due to the higher yield of existing taxes. In February 1924 extraordinary taxes yielded only 8·2 per cent of the total sum.

27. The conditions of the Budget appeared so favourable in November 1924 that the Government, yielding to the insistence of interested persons, was induced to lighten the tax burden. The decree of November 10th, 1924, reduced advance payments on income and corporation taxes; raised the taxable minimum of wages to 60 marks a month; and lowered the rate of the turnover tax from 2 per cent to 1·50 per cent.

In the financial year 1924-25 there was a considerable surplus of receipts over expenses: the effective receipts having exceeded the estimates by about 2 milliard marks. However, so considerable an increase in receipts was obtained at the price of a fiscal burden which was generally held to be out of proportion to the contributive capacity of the German people.

The favourable state of the Budget soon induced the Government to relax the rigorous economy of public expenses which had been practised at the beginning of 1924.*

The documented history of German public finances from 1924 to the financial crisis of 1930, may be found in the Reports of the Agent-General of Reparations.†

* A curious consequence of the extraordinarily favourable financial state of the Reich was the intervention of the latter in the money and capital markets. Thanks to the abundance of liquid resources which the Reich possessed, it had become a financial power of the first order in a country where the lack of working capital for private industry was seriously felt. Through numerous banks created by the Reich itself, funds which had accumulated in the Reich or State Treasuries were put at the disposal of German business as short-term loans. But the Reich and States often granted directly special long-term loans to industry and agriculture; or else invested money in the purchase of firms, industrial shares, etc. The inconveniences of the system, aggravated by the lack of sufficient control, by public opinion, over these financial operations, were obvious.

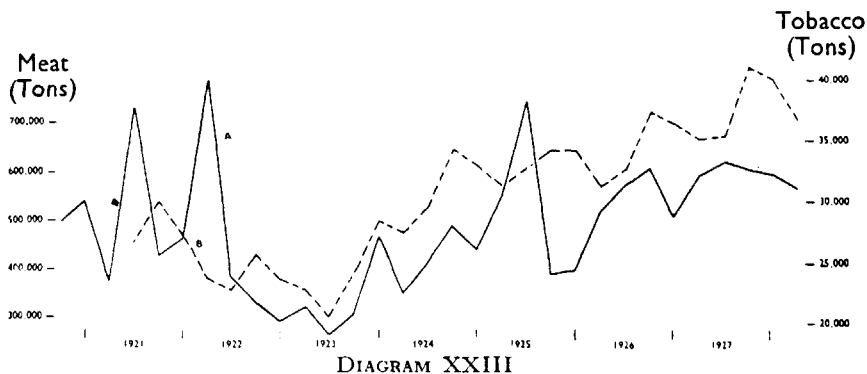
† According to these reports (see especially the *Report of the Agent General for Reparation Payments*, May 21st, 1930), the expenses and total receipts (i.e. the ordinary and extraordinary Budgets) of the Reich were as follows:

Financial Year	(Millions of gold marks)		Balance
	Expenses	Receipts	
1924-25	7,220	7,757	+ 537
1925-26	7,444	7,334	- 110
1926-27	8,543	7,690	- 853
1927-28	9,316	8,961	- 355
1928-29	10,888	9,751	- 1,237
1929-30	10,846	10,061	- 785

[Footnote continued overleaf.]

figures 1,700,000 members, showed a continual increase in sales. The weekly average purchase of each member rose to 2.74 marks in January 1924; 3.22 in July of the same year; 3.65 in January 1925, and 4.14 in July 1925.*

The consumption of meat, which before the war had reached 52 kg. per person, was reduced to 22 kg. in 1923, and rose again to 41 kg. in 1924. Immediately after the monetary stabilization the consumption of beer, tobacco, sugar, and coffee also increased, as Diagrams XXIII to XXV show, and as is confirmed also by statistics about the fiscal



A. Tobacco consumption

B. Meat consumption

receipts which, under the Dawes Plan, guaranteed the payments of the German Government.

An analysis of the import statistics for 1924 and 1925 reveals some facts which show, not only an increase, but also an improvement in popular consumption. Wheat was substituted for rye, butter for margarine, higher grade meat for lower grade; and imports of cheese, eggs, vegetables, and fruit increased.

While the consumption of electricity by the civil population was greatly reduced during the inflation period—despite the relatively low charges—after the stabilization there was a sudden rise in the demand.

Another example is the rise in the uses of personal service. The rise in the original incomes of numerous classes of society was also reflected on some kinds of "derivative" incomes; e.g. the services of doctors

* Professor Sering also stated at a meeting of the Reichswirtschaftsrat that the consumption of food by the German people increased considerably during 1924 (see *Verhandlungen des Zolltarifausschusses über die Agrarzölle, Vorläufiger Reichswirtschaftsrat, 1920-25*, p. 8).

THE STABILIZATION CRISIS

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movement of wages from the beginning of 1924 onwards. Diagram xxvi shows:

- A. The nominal wage-rate per hour;
 B. The index of the real income of workers.*

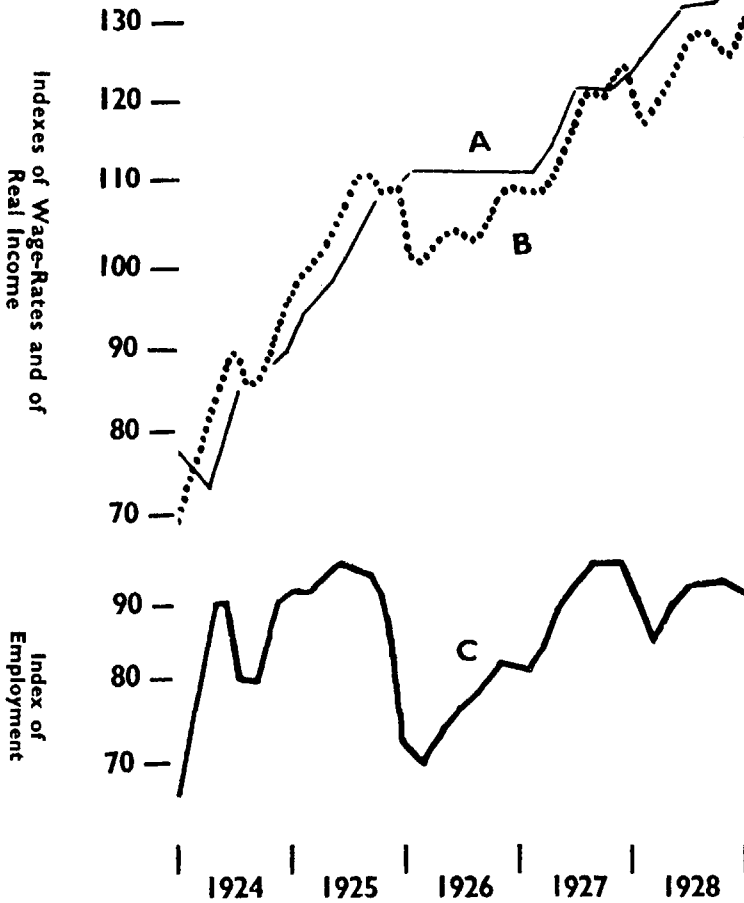


DIAGRAM XXVI

- A. Money wage-rates: unskilled workers (1924-26 = 100)
 B. Real income of unskilled workers (1924-26 = 100)
 C. Employment (percentage of employed workers among the members of the Workers' Associations)

* I have explained the method I adopted in calculating the real income of workers in the article "Movement of Wages in Germany, etc.," p. 394.

Tabelle 2: Schätzung des realen Bruttosozialprodukts 1914-1924 (1913 = 100)

	Landwirtschaft I	Industrie und Handwerk II	Verkehr			Index Gewichte Hoffmann VI	Index Gewichte StatRA VII	BSP MP p=1913 VIII
			Personenverkehr III	Güterverkehr IV	Post V			
1 Gewichte Hoffmann	23,2	45,0	1,8	3,3	1,4			
2 Gewichte StatRA	19,0	35,0	2,7	4,8	2,1			
1913	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
1914	89,0	83,0	<i>109,2</i>	<i>109,2</i>	85,0	90,0	92,3	n.v.
1915	85,0	67,0	<i>97,0</i>	<i>97,0</i>	73,3	81,1	84,8	n.v.
1916	65,0	64,0	<i>109,7</i>	<i>109,7</i>	72,1	75,8	80,9	n.v.
1917	60,0	62,0	<i>107,6</i>	<i>107,6</i>	65,7	73,5	78,9	n.v.
1918	60,0	57,0	<i>102,0</i>	<i>102,0</i>	68,2	71,0	76,8	n.v.
1919	57,0	37,8	<i>108,2</i>	<i>75,7</i>	63,7	60,8	68,3	n.v.
1920	63,0	55,1	<i>114,7</i>	<i>88,8</i>	69,0	70,7	76,5	n.v.
1921	64,0	66,3	121,5	94,2	70,7	76,3	81,1	n.v.
1922	71,0	71,4	182,8	101,9	57,3	81,4	85,9	n.v.
1923	72,0	46,9	155,5	62,9	47,3	68,7	74,7	n.v.
1924	74,0	71,9	106,2	70,6	64,3	80,0	83,2	n.v.
1925	76,1	84,6	120,9	88,8	97,7	87,5	90,0	89,3
1926	75,2	77,9	106,1	96,5	99,1	84,3	87,5	90,2
1927	83,7	98,3	112,5	108,2	112,5	96,1	97,3	99,3
1928	88,4	102,0	117,7	109,0	113,9	99,0	99,7	102,3
1929	89,6	102,1	116,3	113,8	112,3	99,5	100,1	100,4
1930	92,0	88,8	107,0	90,9	94,7	92,8	94,2	93,4

Anmerkung: Geschätzte Werte kursiv.

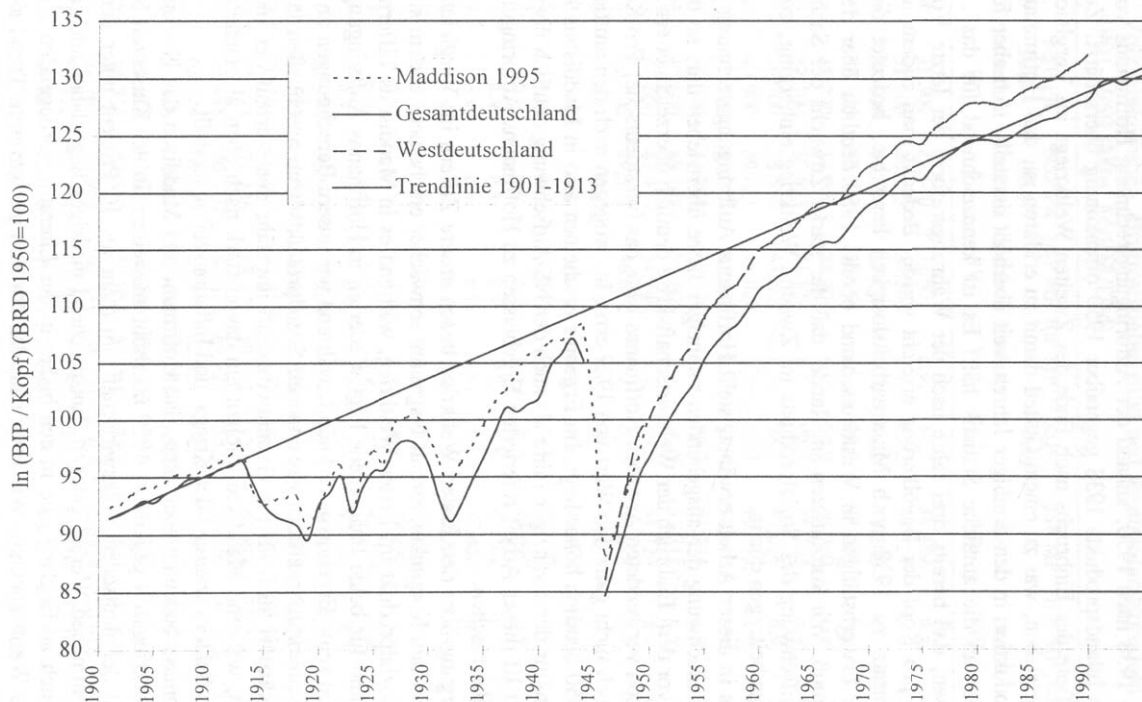
Quellen:

- I 1913-23 *Dessirier*, Indices comparés de la production industrielle et de la production agricole, S. 104; 1924-30 v.d. *Decken/Wagenführ*, Entwicklung und Wandlung, S. 159.
- II *Wagenführ*, Die Industriegewirtschaft, S. 23, 64, umbasiert auf 1913. Wert für 1924 korrigiert nach v.d. *Decken/Wagenführ*, Entwicklung und Wandlung, S. 159.
- III, IV 1913, 1922-24 Die Reichsbahn in Zahlen, Berlin 1926, S. 37, 73; 1914-20 s. Text; 1921 Deutschlands Wirtschaft, Währung und Finanzen, Berlin 1924, S. 16; 1925-30 Statistisches Bundesamt, Bevölkerung und Wirtschaft 1872-1972, S. 204.
- V *D. Petzina/W. Abelschauser/A. Faust*, Sozialgeschichtliches Arbeitsbuch III. Materialien zur Statistik des Deutschen Reiches 1914-1945, München 1978, S. 69.
- VI, VII Verknüpfung von I bis V mit den Gewichten aus Zeilen 1 bzw. 2.
- VIII Tabelle A.1 im Anhang, Sp. IX.

3. Von der Währungsstabilisierung zum Kriegsbeginn (1925-1938)

Für die Jahre ab 1925 kann direkt auf die amtlichen Volkseinkommensziffern und das nunmehr reichliche Material zur Verwendung des Sozialprodukts Bezug genommen werden. Im folgenden begnügen wir uns mit einer stark gerafften Übersicht.⁵⁶ Das Bruttosozialprodukt

⁵⁶ Zu den Einzelheiten vgl. *Ritschl*, Spurious Growth; *ders.*, Measuring National Product; sowie insbesondere den Anhang in *Ritschl*, Deutschlands Krise und Konjunktur.



Anmerkung: Für 1901-24 sind in unserer Reihe die Werte des Bruttosozialprodukts pro Kopf eingesetzt.

Das Deutsche Reich

Reichstagswahlen 1919–1933

[Überblick](#)
[Präsident](#)
[Reichstag](#)
[Exekutive](#)
[Plebiszite](#)
[Ereignisse](#)

[1919](#)
[1920](#)
[1924 I](#)
[1924 II](#)
[1928](#)
[1930](#)
[1932 I](#)
[1932 II](#)
[1933](#)



Übersicht über die Reichstagswahlen 1919 – 1933											
Deutsches Reich		19	20/22	24 I	24 II	28	30	32 I	32 II	33	
Preußen											
Bayern											
Sachsen	Wahlbeteil.	83,02	79,18	77,42	78,76	75,60	81,95	84,06	80,58	88,74	Wahlbeteil.
Württemberg	NSDAP	.	.	6,55 ^a	3,00 ^b	2,63	18,33	37,36	33,09	43,91	NSDAP
Baden	DVFP	.	.	.	.	0,87	.	.	.	.	VNB
Thüringen	Landvolk	.	.	.	.	1,89	3,17	0,25	0,30 ^c	.	Landvolk
Hessen											
Hamburg	WP	.	.	1,71	2,29	4,54	3,95	0,40	0,31	.	WP
Mecklenburg-Schwerin	BBB	0,91	0,78	0,64	1,03	1,56	0,97	0,37	0,42	0,29	DBP
Oldenburg	DNVP	10,27	15,07	19,45	20,49	14,25	7,03	5,93	8,66	7,97	DNVP
Braunschweig											
Anhalt	CSVd	.	.	.	.	0,20	2,49	1,10	1,48	0,98	CSVd
Bremen	DVP	4,43	13,90	9,20	10,07	8,71	4,75	1,18	1,86	1,10	DVP
Lippe	DDP	18,56	8,28	5,65	6,34	4,90	3,78	1,01	0,95	0,85	DStP
Lübeck											
Mecklenburg-Strelitz	BVP	19,67	4,39	3,23	3,74	3,07	3,03	3,26	3,09	2,73	BVP
Waldeck	Zentrum		13,64	13,37	13,60	12,07	11,81	12,44	11,93	11,25	Zentrum
Schaumburg-Lippe	SPD	37,86	21,92	20,52	26,02	29,76	24,53	21,58	20,44	18,25	SPD
Saargebiet	USPD	7,62	17,63	0,80	0,33	0,07	0,03	.	.	.	USPD
Danzig	KPD	.	2,09	12,61	8,94	10,62	13,13	14,56	16,86	12,32	KPD
Memelgebiet											
	Sonstige	0,68	2,30	6,25	4,15	4,86	3,02	0,56	0,61	0,35	Sonstige
Startseite	grafische Übersicht										
Abkürzungen	Sitze	423	459	472	493	491	577	608	584	[647]	Sitze
Literatur	NSDAP	.	.	32 ^a	14 ^b	12	107	230	196	288	NSDAP
	DVFP	.	.	.	.	-	.	.	.	.	VNB
	Landvolk	.	.	.	.	9	19	1	-	.	Landvolk
	WP	.	.	7	12	23	23	2	1	.	WP
	BBB	4	4	3	5	8	6	2	3	2	DBP
	DNVP	44	71	95	103	73	41	37	52	52	DNVP
	CSVd	.	.	.	.	-	14	3	5	4	CSVd
	DVP	19	65	45	51	45	30	7	11	2	DVP
	DDP	75	39	28	32	25	20	4	2	5	DStP
	BVP	91	20	16	19	17	19	22	19	19	BVP
	Zentrum		64	65	69	61	68	75	71	73	Zentrum
	SPD	165	103	100	131	153	143	133	121	120	SPD
	USPD	22	83	-	-	-	-	.	.	.	USPD
	KPD	.	4	62	45	54	77	89	100	[81]	KPD
	Sonstige	3	6	19	12	11	10	3	3	1	Sonstige

^a DVFP und NSDAP

^b NSFB

^c davon 0,17 % Thüringer Landbund, 0,13 % Deutsches Landvolk

Das Deutsche Reich

Reichstagswahlen 1919–1933



Überblick Präsident Reichstag Exekutive Plebiszite Ereignisse

1919 1920 1924 I 1924 II 1928 1930 1932 I 1932 II 1933

- Deutsches Reich
- Preußen
- Bayern
- Sachsen
- Württemberg
- Baden
- Thüringen
- Hessen
- Hamburg
- Mecklenburg-Schwerin
- Oldenburg
- Braunschweig
- Anhalt
- Bremen
- Lippe
- Lübeck
- Mecklenburg-Strelitz
- Waldeck
- Schaumburg-Lippe
- Saargebiet
- Danzig
- Memelgebiet
- Startseite
- Abkürzungen
- Literatur

