



# **Work Creation Policy in Germany, 1932-1935 : II <sup>1</sup>**

by

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## **EFFECTS ON THE VOLUME OF CREDIT AND THE FINANCES OF THE REICH**

It has already been shown that of the total expenditure on direct work creation measures 3,125 million RM. were financed by short-dated bills. To this amount should be added the tax remission bills, which also represent a short-term liability of the Reich. Table VII shows the changes in the volume of credit brought about by the issue of these short-term bills.

**TABLE VII. CHANGES IN VOLUME OF SHORT-TERM BILLS OUTSTANDING,  
1932-1936 <sup>1</sup>**

Treasury and other bills outstanding	Million RM.				
	End of 1932	End of 1933	End of 1934	September 1935	End of Feb. 1936
Reich and State Treas- ury bills	1,569	1,954	2,483	3,004	3,178
Tax remission bills	200	1,215	1,183	896	888
<b>Total</b>	<b>1,769</b>	<b>3,169</b>	<b>3,666</b>	<b>3,900</b>	<b>4,066</b>
Bank acceptances	1,938	1,624	1,553	1,073	967
Other bills	6,812	7,426	9,147	10,927	11,085
<b>Total</b>	<b>8,750</b>	<b>9,050</b>	<b>10,700</b>	<b>12,000</b>	<b>12,052</b>
<b>Grand total</b>	<b>10,519</b>	<b>12,219</b>	<b>14,366</b>	<b>15,900</b>	<b>16,118</b>

<sup>1</sup> SOURCES: REICHS-KREDIT-GESELLSCHAFT: *Deutschlands wirtschaftliche Lage an der Jahreswende 1935-36*; *Wirtschaft und Statistik*, April 1936, 1st part.

<sup>1</sup> For the first part of this article, cf. *International Labour Review*, Vol. XXXV, No. 3, March 1937, pp. 329-351.

Thus, between the end of 1932 and the end of February 1936 the total amount of Treasury and other bills outstanding increased by about 5,600 million RM., the amount of "other bills" alone by 4,273 million RM., and that of Treasury bills and tax remission bills by 2,297 million RM. Now, by all accounts there was no increase in the amount of commercial bills<sup>1</sup>, for the creation of credit by the State had considerably increased the liquid resources of private enterprise. Thus the increase in the volume of bills outstanding must have been due exclusively to bills circulating in respect of public expenditure, an item which has in fact been estimated by various German sources at some 5,000 million RM. for the summer of 1935 (including bills to the value of 1,000 million RM. issued by the National Railways and the National Post Office).<sup>2</sup> This figure is 2,000 million RM. more than was allocated for the work creation measures. It is probably not far wrong to assume that the difference consisted of rearmament bills. This is confirmed in the following terms by the Reichsbank's report for 1935, which, however, does not give any figures: "Failing an adequate supply of capital on the loan market, the additional expenditure on rearmament, so far as it was not covered by ordinary Budget resources, had also to be financed by short-term operations."

In addition to the rise in the volume of credit, there was also an increase in the rate of circulation of money and credit. After the hoarding which had taken place in 1931 and 1932, considerable sums were released. There is clearly an allusion to this process in the following passage of the report of the *Reichs-Kredit-Gesellschaft* already cited<sup>3</sup>:

Allowance must also be made for the fact that at the same time the inactive bills dating from the depression, which for the most part only represented transfers from one debit account to another, had disappeared from circulation; so, too, had all the municipal and the Russian bills. The volume of active inland trade bills must therefore have increased even more than would appear from the figure of 5,000 million RM. A comparison with the period of business prosperity from 1926 to 1929, during which the volume of bills outstanding increased by 4,100 million RM. (at a time when the average level of prices was 35 per cent. and the volume of foreign trade about two-thirds higher), reveals the full significance of the increase in the bills outstanding since 1933.

<sup>1</sup> Cf. *Frankfurter Zeitung*, 11 Aug. 1935: "Finanzpolitik in der Staatskonjunktur".

<sup>2</sup> Cf. *inter alia*: INSTITUT FÜR KONJUNKTURFORSCHUNG: *Wochenbericht*, 14 Nov. 1935, and *Wirtschaft und Statistik*, March 1936, 1st part.

<sup>3</sup> *Deutschlands wirtschaftliche Lage an der Jahreswende 1935-36*, p. 45.

Table VIII gives a general survey of the channels of the German banking system into which the new bills and other short-dated paper flowed.

TABLE VIII. LOCATION OF TREASURY AND OTHER BILLS OUTSTANDING AT CERTAIN DATES, 1932-1936

Holders of bills	Million RM.				
	End of 1932	End of 1933	End of 1934	End of Sept. 1935	End of Feb. 1936
Reichsbank, Gold Discount Bank, and State banks of issue	3,255	3,867	4,837	5,285	5,134
Public banks (including savings banks)	1,117	1,612	2,776	3,853	3,664
Credit banks	1,916	1,984	2,276	2,351	2,450 <sup>1</sup>
Total, Reichsbank and other banks	6,288	7,463	9,889	10,989	11,248
Industrial, commercial, and insurance firms, etc.	4,231	4,756	4,477	4,911	4,870

<sup>1</sup> Estimate, the method of compiling this item of the statistics having changed.

Thus the greater part of the increased volume of bills and other short-dated paper was taken up by the banks, and more especially by the Reichsbank, which, together with its affiliated institution, the Gold Discount Bank, had taken up about 1,600 million RM. of the increase at the end of 1934, and about 1,880 million at the beginning of 1936. In actual fact, the Reichsbank's holdings of work creation and rearmament bills were even greater, owing to the changes which have been mentioned in the nature of the bills held, and which, in this case, were considerable. Since the autumn of 1933 the Reichsbank has increased the possible scope of its credit operations by adopting an open-market policy, though this has not so far been applied on any large scale.

After the Reichsbank, the most important contribution to financing the work creation schemes was made by the public banks, which, at the end of 1935, had taken up about 2,550 million RM. of the increased volume of short-dated paper.

The contribution of the private credit banks, on the contrary, was small.

Table IX shows the changes in the Reichsbank's situation from 1932 to 1935.

TABLE IX. SELECTED ITEMS FROM THE RETURNS OF THE REICHSBANK, 1932-1935

(Million RM.)

Date (31 Dec. of each year)	Total money in circulation	Other sight liabilities	Gold and foreign exchange <sup>1</sup>	Total credits <sup>2</sup>	Credits of the Gold Discount Bank
1932	5,642	540	920	2,982	—
1933	5,715	640	395	3,668	—
1934	5,972	984	84	4,656	199
1935	6,373	1,032	88	4,985	1,407

<sup>1</sup> Not including the gold reserves of the four State banks of issue, which amounted to about 70-75 million RM. For 1935 the German foreign trade statistics show imports of 100 million RM. of gold which is not shown in the Reichsbank's returns (cf. the Report for 1935 of the Bank for International Settlements).

<sup>2</sup> Bills of exchange and Treasury Bills, cheques, advances, and securities (*deckungs/dhige Wertpapiere*).

Thus, in the space of three years, the Reichsbank had increased the volume of its credits by some 2,000 million RM., or two-thirds of the amount at the end of 1932; if the figures for the Gold Discount Bank are added, the increase amounted to 3,400 million RM. During the same period, the amount of money in circulation had risen by 731 million RM., or more than 13 per cent., and the Reichsbank's sight liabilities by 492 million RM. (this last increase being mainly due to the accumulation of balances due to foreigners as a result of the transfer moratorium). For purposes of comparison, it may be added that during the last boom in 1928 and 1929, although the price level was higher, the aggregate volume of credits of the Reichsbank averaged 2,600 to 2,700 million RM., and the amount of money in circulation 6,300 million RM.

As a matter of fact, part of the increase in the Reichsbank's credits merely took the place of the efflux of gold and foreign exchange, amounting to 832 million RM. between the end of 1932 and the end of 1935. Similar developments are to be observed throughout the credit system. The net increase in the volume of credits was far less than the gross increase, for the latter

was offset by the concurrent dwindling of other items. For instance; as a result of the steady withdrawal of funds, the returns of the credit banks showed a reduction of liabilities in respect of foreign creditors, and up to 1935 the deposits of German customers were also diminishing. On the other hand, the work creation schemes considerably augmented the liquid resources of industry, and brought about large repayments of debts; this process was intensified by the reduction of stocks which began in 1935 in connection with the scarcity of raw materials. Finally, the exodus of capital from Germany to foreign countries, which took place in spite of considerable obstacles, may also have offset the expansion of credit to some extent.

Thus, in many cases the effect of the credit expansion was only to exchange one kind of credits for another. "All the various forms of credit which were selected for financing public capital investments, and especially Treasury and other bills, show an enormous increase, whereas credits of the kind which are mainly used by industrial and commercial undertakings — e.g. advances and documentary credits — are steadily falling."<sup>1</sup> The credit system as a whole accordingly found itself working on State credit rather than on private credit, and this qualitative change was accompanied by a quantitative change, namely, a greater velocity of circulation of credit.

The general impression emerging is that the work creation schemes themselves have made financing within the banking system easier. A large part of the proceeds of the work creation and rearmament bills returned to the banks after a short period of circulation. These sums, and the repayment of debts by industry out of its new liquid resources, made it possible for the banks to take up State bills and Reich Treasury bills, and so help to finance the work creation schemes and rearmament. Within the banking system, the public banks, including the savings banks, were more affected by the tendency towards expansion, and the private credit banks by the repayment of debts.

The expansion of State credit had a twofold effect on the Reich finances: on the one hand, the National Debt rose, while on the other there was an increase in tax revenue and a saving on unemployment relief and similar expenditure.

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<sup>1</sup> REICHS-KREDIT-GESELLSCHAFT: *op. cit.*, p. 46.

Table X shows the change in the volume of the National Debt from 1932 to 1935, according to official statistics.

TABLE X. GERMAN NATIONAL DEBT, 1932 AND 1935

Form of debt	Million RM.	
	End of 1932	End of 1935
Long-term debt :		
Internal	7,088	9,549
Foreign	3,065	1,699
Total	10,153	11,248
Short-term debt	1,391	2,856
Tax remission bills in circulation	200	890
Work creation and rearmament bills	—	4,000 <sup>1</sup>
Total	11,744	18,994

<sup>1</sup> Not including bills to the value of 1,000 million RM. issued by the National Railways and the National Post Office.

It appears from these figures that during the three years in question the total National Debt rose by 7,250 million RM., while the short-term debt, including tax remission and other bills, increased by 6,155 million RM. At the same time, owing to currency depreciation in creditor countries and redemption at lower rates, the foreign debt fell by 1,366 million RM. The increase in long-term internal debt was mainly due to the consolidation of floating debt. In 1935 this process was chiefly effected by loans to the value of 1,636 million RM. which were taken up by the savings banks and insurance institutions. <sup>1</sup> Part of the proceeds was used to retire work creation bills. Since in spite of this the end of 1935 showed no decrease in the total amount of bills, it is to be concluded that the new (armament) bills were being issued at about the same rate as the old (work creation) bills were being retired.

According to Mr. Reinhardt, Secretary of State <sup>2</sup>, the improvement in the Reich Budget over the three financial years from April 1933 to March 1936 amounted in all to 7,000 million RM., "much the greater part of which must probably have been spent on public capital investments." We have already seen that 2,000 million RM. went to work creation

<sup>1</sup> *Wirtschaft und Statistik*, March, 1st part, 1936.

<sup>2</sup> Quoted in : REICHS-KREDIT-GESELLSCHAFT : *op. cit.*, p. 53.

measures in the narrower sense. No accurate information is available as to how the rest was spent, since complete Reich Budgets are no longer published. Part of the balance was presumably absorbed by increased expenditure on administration and staff, especially for the Army and Navy. Rearmament must have accounted for a further part, which flowed into industry, and therefore had the same effect on employment and production as the work creation measures. "All this reflects a very considerable degree of compulsory capital investment enforced by the State. Hardly ever has a business recovery been brought about to such an extent by this kind of capital investment on the part of the State. This is due to the fact that the exceedingly high rates of taxation which prevailed during the business depression from 1930 to 1932 were only reduced in a few cases, and were for the most part maintained in the German system of taxation. The same applies to unemployment contributions, which had also been considerably increased during the depression. Although from 1933 to 1935 unemployment fell to less than a third of the peak figure reached when the depression was at its worst, unemployment contributions remained at the same level."<sup>1</sup>

This use of the improvement in the Budget returns must be given considerable weight in assessing the effects of the German work creation policy. If the surpluses had not been reinvested in armaments, it would in fact have been possible either to make considerable tax reductions — in favour of both producers and consumers — or to pay off a large part of the work creation debt before maturity. There are good reasons for supposing that such measures would have stimulated private enterprise, have made business even more liquid, and would thus have been able to give that initial impetus which was contemplated when the work creation policy was originally introduced.

#### EFFECTS ON THE LABOUR MARKET

Table XI shows the changes in unemployment and employment in Germany from 1932 to 1936, according to official statistics.<sup>2</sup>

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<sup>1</sup> REICHS-KREDIT-GESELLSCHAFT : *op. cit.*, p. 53.

<sup>2</sup> During the years under consideration, some changes were made in the statistical methods of recording unemployment in Germany. In particular, persons engaged in the labour service were counted as unemployed up to 30 July 1933, but

TABLE XI. CHANGES IN UNEMPLOYMENT AND EMPLOYMENT FROM YEAR TO YEAR, 1932-1936

Date (end of month)	Number unemployed (thousands)			Number employed (thousands)		
June  Dec.	1932	1933	Decrease	1932	1933	Increase
	5,476	4,857	619	12,779	13,307	528
	5,773	4,059	1,714	11,983	13,287	1,304
June  Dec.	1933	1934	Decrease	1933	1934	Increase
	4,857	2,481	2,376	13,307	15,530	2,223
	4,059	2,605	1,454	13,287	14,873	1,586
June  Dec.	1934	1935	Decrease	1934	1935	Increase
	2,481	1,877	604	15,530	16,504	974
	2,605	2,508	97	14,873	15,582	709
June	1935	1936	Decrease	1935	1936	Increase
	1,877	1,315	562	16,504	17,675	1,171

The difference between the decrease in the number unemployed and the increase in the number employed reflects the fluctuations in the number of the "invisible" unemployed — i.e. the unemployed who, for some reason or other, were not registered with the employment exchanges. It will be seen that the movements of the two series were about parallel in 1934 and that invisible unemployment increased in 1933 and decreased in 1935. This is probably due in part to the introduction of general conscription and of compulsory labour service in the spring of 1935. According to calculations made by the *Institut für Konjunkturforschung*<sup>1</sup>, the volume of invisible

not afterwards. At that date there were about 130,000 persons in the labour service, so that the apparent reduction of unemployment was increased by that figure. From 1935 onwards, about 50,000 unemployed persons and 200,000 employed persons in the Saar are included in the figures. In addition, some allowance should be made for the increase in the population over the period considered.

<sup>1</sup> *Wochenbericht*, 21 Aug. 1935.



unemployment was 799,000 persons in the middle of 1933 and 720,000 in the middle of 1935, so that the difference was not very great. Over the whole three years covered by the present study the movements of the two series of figures were much the same. They were as follows :

Period	Decrease in unemployment (thousands)	Increase in employment (thousands)
June 1932 to June 1935	3,599	3,725
Dec. 1932 to Dec. 1935	3,265	3,599

An attempt — necessarily very rough and incomplete — will now be made to analyse the effects on the labour market of the work creation measures. One indication of the effects of these measures can be obtained from the estimates of their cost per man-year. In the direct work creation schemes, this worked out at about 2,000 RM.<sup>1</sup> Combining this figure with the data given above for the direct work creation measures, and assuming that the moneys in question were spent continuously, we get the following table :

Item	Middle of 1932 to end of 1933	In 1934	In 1935
Expenditure on direct work creation measures (thousand RM.) <sup>1</sup>	1,455	1,985	593
Number of workers provided with employment for one year	727,500	992,500	296,500
Resulting increase or decrease in employment	+ 727,500	+ 265,000	— 696,000

<sup>1</sup> See the first part of this article, p. 338. The subsidies for the repair of dwellings have been deducted from the sums shown there because the calculation of the costs per man-year refers only to works whose whole cost was borne by the public authorities concerned.

These figures are of course merely approximations, but they at least suffice to show that the curve of the primary effects on the labour market of the work creation schemes was already falling in 1934 and that in 1935 a considerable number of workers who had been engaged on the schemes were again set free.

Very few data are available to show the effects of subsidies and indirect measures. The subsidies given for the repair and reconstruction of dwellings in the winter of 1933-34 are said to have provided employment for 750,000 persons.<sup>2</sup> By the summer of 1934, the primary effects of these measures had practically come to an end.

<sup>1</sup> INTERNATIONAL LABOUR OFFICE : *Public Works Policy*, p. 69.

<sup>2</sup> Report of Mr. SELDTE, Reich Minister of Labour, for 1935, in *Reichsarbeitsblatt*, 1935, No. 36.

Another factor in reducing unemployment, at least in 1933, was the change in the policy of private undertakings with regard to the engagement of workers. As a result of active propaganda to secure support for the Government's work creation policy, and of other measures, a number of undertakings were induced to engage more workers than were strictly necessary for purposes of production. Evidence of this can be found in the reports of German joint-stock companies for 1933.

Lastly, a few figures may be given to illustrate the rate of absorption of workers outside the process of industrial production.

TABLE XII. ABSORPTION OF WORKERS OUTSIDE INDUSTRIAL PRODUCTION, 1933-1935 <sup>1</sup>

Scheme	Average number of workers absorbed		
	1933	1934	1935
Labour service	200,000-250,000	200,000-250,000	200,000
Agricultural assistants	?	150,000	150,000
The "Year on the Land"			
Marriage loans	150,000	365,000	523,000
Additional domestic servants	100,000	170,000	180,000
Total	450,000-500,000	885,000-935,000	1,000,000-1,100,000
Including military service			1,500,000
Annual increase	450,000-500,000	c. 435,000	c. 590,000

<sup>1</sup> INSTITUT FÜR KONJUNKTURFORSCHUNG: *Wochenbericht*, 21 March 1936.

The number of workers absorbed in this way is remarkably high. Here, in contrast to the direct work creation measures, a steady upward trend is to be observed. This is particularly noticeable if the numbers called up for general compulsory military service are taken into account, though no official figures are available on this subject or on the exact date at which the calling-up began. According to the report of the Reich Minister of Labour for 1935, the calling-up of men for military service and labour service "greatly relieved" the labour market. In these circumstances the total number of

workers absorbed outside the process of production must be estimated at not less than 1.5 million at the end of 1935. It follows that about 45 per cent. of the decrease in unemployment from 1933 to 1935 is to be attributed to this cause.

Thus, of the persons provided with additional employment, only a little more than half were absorbed into the process of industrial production as the result of direct or indirect work creation measures and their secondary effects; the other half contributed nothing to the development of production.

It should be noted that the absorption of labour was not due in any way to a change in the distribution of the available work. The average hours of work rose slightly in 1933 and 1934 and remained more or less stationary in 1935. For public works, the 40-hour week was originally introduced but was abandoned in 1934.

It has been pointed out in Germany that in studying the unemployment figures it is necessary to allow for a minimum of probably about a million unemployed, of whom half are unemployable and the other half represent ordinary fluctuations of unemployment.<sup>1</sup> At the middle of 1935, therefore, there would have been only about eight or nine hundred thousand "genuine" unemployed persons in Germany.

From 1934 onwards the reduction in the quantity of unemployment was accompanied by various measures which had a noticeable effect on the character of the labour market. The most significant feature was the partial abolition of free mobility of labour. The transfer of agricultural workers to industry was made practically impossible; the migration of workers into Berlin and its suburbs, Hamburg, Bremen, and the Saar was prohibited; official permits were required for the engagement of young workers, and in some cases it was made compulsory to dismiss young persons and engage older workers in their place.<sup>2</sup> As unemployment decreased, geographical and occupational differences became more and more strongly marked. In 1935 efforts were made to overcome the geographical differences by concentrating the work creation schemes in depressed areas. Occupational differences, exemplified by a shortage of skilled workers in some industries and considerable unemployment in others, were connected with the uneven development

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<sup>1</sup> INSTITUT FÜR KONJUNKTURFORSCHUNG: *Wochenbericht*, 6 Nov. 1935.

<sup>2</sup> Act of 15 May 1934 to regulate the engagement of labour, and subsequent administrative regulations.

of production, which will be dealt with in the next section of this article.

Finally, it should be noted that the system of marriage loans, the campaign against multiple employment, and various other measures reduced the proportion of women in the total number of employed persons to 31.7 per cent., as against 35 per cent. in 1933 and 34.4 per cent. in 1928-29.<sup>1</sup>

### EFFECTS ON PRODUCTION, CONSUMPTION, AND NATIONAL INCOME

An outstanding feature in the development of production as a result of the work creation schemes and rearmament was the marked divergence between the output of production goods and the output of consumption goods, as shown in table XIII.

TABLE XIII. INDEXES OF PRODUCTION, 1932-1935<sup>1</sup>

Year	Total production		Production goods		Investment goods <sup>2</sup>		Consumption goods	
	1928 = 100	1932 = 100	1928 = 100	1932 = 100	1928 = 100	1932 = 100	1928 = 100	1932 = 100
1932	58.7	100	45.7	100	35.4	100	78.1	100
1933	65.5	112	53.7	118	44.9	127	82.9	106
1934	83.3	142	77.2	169	74.8	211	92.6	119
1935	95.8	163	99.4	218	102.4	289	91.0	116

<sup>1</sup> SOURCE: Publications of the *Institut für Konjunkturforschung*. The Institute makes a distinction within the group "production goods" between "investment goods", which serve solely to provide plant and equipment, and "production goods for general use" (e.g. coal, gas, electricity, paper).

<sup>2</sup> Included in the preceding group.

While the output of production goods in 1935 was more than double what it had been in 1932, and within that group the output of investment goods had increased almost three times, the output of consumption goods in 1934 was only 18 per cent. higher than in 1932, and in 1935 it actually declined a little. Even in 1934 the disproportion was striking, and in 1935 it was much more marked. Previous experience has shown that at the beginning of a revival the output of production goods tends at first to increase more rapidly than the output of consumption goods. In this case, however, the divergence

<sup>1</sup> INSTITUT FÜR KONJUNKTURFORSCHUNG: *Vierteljahrshäfte*, 11th year, 1936, No. 1, Part B, p. 9.

would seem to be unduly great; in addition, it did not disappear at a later stage of the recovery, when the secondary effects of the work creation schemes must have been making themselves more strongly felt in the field of consumption, but rather became more marked. Only a partial explanation is to be found in the fact that in 1934 consumers laid in stocks for future needs as a result of the restrictions on imports, so that they naturally purchased less in 1935. A more complete explanation lies in the fact that the secondary effects of the work creation schemes in the field of consumption were weakened by the shortage of raw materials and the rise in prices on the one hand, and by rearmament on the other, as a result of which a considerable fraction of the newly created income was diverted by means of taxation and loans to the production goods industries. It should further be noted that in the statistics of every country armaments are included under the heading "production goods" (a typical example being iron and steel), but that this is misleading as regards the economic significance of armaments. Increased output of production goods means that at some later date the national economy has more or better consumption goods at its disposal. This is by no means the case when armaments are manufactured, and this branch of industry is therefore to be regarded rather as a form of collective consumption.

The difference in the movements of the output of production and consumption goods was accompanied by a discrepancy in the degree to which productive capacity was utilised. A few characteristic examples<sup>1</sup> may be given, referring to the middle of 1935:

Branch of industry	Per cent. of productive capacity used
<i>Industries for production goods:</i>	
Construction of motor vehicles	93
Iron industry	83
Mechanical engineering	77
<i>Industries for consumption goods:</i>	
Textile industry	53-59
Clothing industry	43

It will thus be seen that by the middle of 1935 important production goods industries had already approached the optimum degree of utilisation of their productive capacity (which is generally less than 100 per cent. of the full technical capacity),

<sup>1</sup> Taken from an investigation carried out by the *Institut für Konjunkturforschung* at the request of the Reich Minister of Finance. The figure for mechanical engineering refers to the first half of 1935.

while the consumption goods industries lagged far behind. The importance of this factor will be brought out later. It will suffice here to remark that when the existing plant is utilised to optimum capacity the fixed costs per unit of production cease to fall, and that the industrialist is faced with the question of extending his undertaking.

The next question to consider is how far the increase in the output of production goods can be attributed to the work creation schemes. According to estimates of the Reich Statistical Office, the volume of capital investments (including replacements) was as follows :

TABLE XIV. PUBLIC AND PRIVATE CAPITAL INVESTMENTS, 1932-1935 <sup>1</sup>

Year	1,000 million RM.			Per cent. of total	
	Total investments	Public investments	Private investments	Public investments	Private investments
1932	4.25	2.69	1.55	63	36
1933	5.10	3.31	1.79	65	35
1934	8.25	5.77	2.48	70	30
1935 <sup>2</sup>	11.0	8.0	3.0	73	27

<sup>1</sup> "Die Investitionen der deutschen Volkswirtschaft, 1924-1934", in *Wirtschaft und Statistik*, Sept., 2nd part, 1935.

<sup>2</sup> Figures of the *Institut für Konjunkturforschung*.

According to these figures, the sums devoted to capital development from 1933 to 1935 amounted to between 24,000 and 25,000 million RM., of which 17,000 million were spent by the public authorities. During these three years the work creation schemes accounted for 5,000 million, or about a fifth of the total volume of investments (armaments accounting for a further fraction which it is difficult to determine). The increase in the volume of investment as compared with the lowest point in 1932 was as follows (in 1,000 million RM.) :

Year	Total investments	Public investments	Private investments
1933	0.85	0.62	0.24
1934	4.00	3.08	0.93
1935	6.75	5.31	1.45

Thus the work creation schemes accounted for about three-fourths of the increase in the total volume of investments

since 1932, and practically the whole of the increase in the volume of public investments.

Private investments remained far behind public investments. In 1935 the latter had practically returned to the 1928 level — as prices had fallen considerably the volume of investment in 1935 was in reality much in excess of that of 1928 — but private investments amounted to only about half the 1928 figure. Table XV shows that up to 1934 the investments of industrial and public utility undertakings were considerably less than the sums normally written off for depreciation. This means that liquidity was still the dominant motive, although there had been an appreciable improvement in the relation of costs to prices.

TABLE XV. BALANCE OF INVESTMENTS AND NORMAL DEPRECIATION <sup>1</sup>

Category of undertakings	Million RM.		
	1932	1933	1934
Industry	— 871	— 780	— 350
Public utility undertakings	— 104	— 116	— 75

<sup>1</sup> *Wirtschaft und Statistik*, Sept., 2nd part, 1935.

In so far as private investments went beyond mere replacements, their direction after 1934 tended more and more to be determined by the difficulties of foreign trade on the one hand, and by rearmament on the other. They were therefore concentrated mainly on the industries producing substitutes for raw materials and the armament industries. In the case of the former group at least Government guarantees appear to have played a certain part, so that they cannot be considered strictly as private investments.

The divergence between public and private investments meant that the proportion of public investments (which as a rule give no return or only a low return) rose from 60 per cent. of the total investments in 1928 and 63.5 per cent. in 1932 to 73 per cent. in 1935.

The following brief list may be given of the main causes for the suspension of investment in private enterprise, though it is impossible to discuss the various points in detail here :

(1) Government control of investments, to which some dozen industries were subject.

(2) Difficulties of foreign trade. These checked investment in export industries, and at the same time the shortage of raw materials had the same effect on industries dependent on imported raw materials.

(3) Intervention in the structure of costs and profits, including such specific measures as export duties, price control, and the restriction of dividends.<sup>1</sup>

(4) Financing difficulties. Private issues were prohibited and the capital market was thus reserved entirely for the State.

(5) Uncertainty as to the continuance of public contracts.<sup>2</sup>

The connections between the increase in production, national income, labour income, and consumption are briefly indicated by the figures in table XVI.

TABLE XVI. MOVEMENT OF NATIONAL INCOME, WAGES, INDUSTRIAL PRODUCTION, AND RETAIL TRADE, 1932-1935

Year	National income		Labour income		Value of industrial production	Turnover of retail trade	
	1,000 million RM.	Per cent. of 1932	1,000 million RM.	Per cent. of 1932	Per cent. of 1932	1,000 million RM.	Per cent. of 1932
1932	45.3	100	25.7	100	100	22.7	100
1933	46.5	102.6	26.0	101.2	111.6	21.8	96.0
1934	52.5	115.9	29.3	114.0	142.0	24.2	106.6
1935 <sup>1</sup>	56.5	124.7	32.2	125.3	163.2	25.2	111.0

<sup>1</sup> Including the Saar Territory.

This table shows how the increase in income followed the rise in production with a certain time-lag and on a very much smaller scale. Over the three years of the work creation programmes, for an aggregate increase of about 63 per cent. in the value of production there was an increase of about 25 per cent. in the national income and in labour income, and of 11 per cent. in consumption.<sup>3</sup> The increase in the turnover of retail

<sup>1</sup> "Costs and profits depend largely on factors that are beyond the control of private enterprise" (*Institut für Konjunkturforschung: Vierteljahrshefte*, 10th year, 1935, No. II, Part A, p. 187).

<sup>2</sup> INSTITUT FÜR KONJUNKTURFORSCHUNG: *Vierteljahrshefte*, 10th year, 1935, No. III, pp. 317-318.

<sup>3</sup> The turnover of retail trade is given merely as an indication of the movement of consumption. It does not represent the absolute volume of consumption, which would have to include the turnover of handicraftsmen, the expenditure in restaurants, places of amusement, and transport undertakings, etc.



trade is less than half the increase in total income. It is perhaps instructive to compare these percentages with the corresponding ones for the last period of rising prosperity, from 1926 to 1928. During those three years the value of industrial production increased by about 25 per cent., the national income by about 20 per cent., and consumption (measured by the turnover of retail trade) by about 18 per cent.

If we try to find a relation between the increase in income and the increase in investments resulting from the work creation schemes and rearmament, we arrive at the following figures, which must, however, be accompanied by numerous reservations as to the method of comparison and the nature of the statistics.<sup>1</sup> The net increase in investments during 1933, 1934, and 1935, as we have just seen, was 6,750 million RM. With this net increase in the volume of investments, there was an increase of 11,200 million, or about  $1\frac{2}{3}$  times as much, in the national income, an increase of 6,500 million, or about as much, in labour income, and an increase of only 2,500 million in the turnover of retail trade.

A few deductions must be made in order to find the real increase in purchasing power. From calculations given in the report of the *Reichs-Kredit-Gesellschaft* already quoted<sup>2</sup> it may be assumed that about 20 per cent. of the increase in total labour income must be deducted for the rise in prices in the intervening period (especially in the prices of agricultural produce), another 20 per cent. for the reduction of payments for assistance and relief, and 10 per cent. for increased taxes on wages and social insurance contributions. The real increase in labour income thus comes to about 3,250 million RM. In calculating the real increase in the national income, the only factor to be taken into account would be the rise in prices, which will now be briefly discussed.

The work creation schemes were based on the existence of abundant factors of production that were lying idle: unemployed plant and unemployed workers. It was therefore to be expected that the increase in demand from the supplementary

<sup>1</sup> This calculation represents a very simplified approximation to the multiplier method developed by J. M. KEYNES in his book *The General Theory of Employment, Interest and Money* (London, 1936), especially Chapter 10: "The Marginal Propensity to Consume and the Multiplier". Mr. Mitnitzky, in the investigation already mentioned, arrives at the ratio  $1 : 1\frac{1}{3}$ , but this is the ratio not for investments and national income but for investments and turnover on the home market, on the assumption that prices remain constant (which was not the case in Germany).

<sup>2</sup> *Op. cit.*, p. 34.

volume of income would meet with a great degree of elasticity in the supply of commodities, so that an increase in prices could be avoided, especially as a fuller utilisation of plant would naturally result in decreasing costs per unit of output. Nevertheless, prices did rise considerably, and the reason becomes clear on a closer analysis of the price movements. In this article only a very rough survey can be given, with the reservation that the official index numbers necessarily give only an incomplete picture. It is, for instance, significant that the *Reichs-Kredit-Gesellschaft*, as just mentioned, when calculating the real labour income, deducted 20 per cent. for the rise in prices, although the cost-of-living index (excluding rent) had risen by only 5.3 per cent.

TABLE XVII. INDEX NUMBERS OF WHOLESALE PRICES, 1932-1935  
(Base: 1913 = 100)

Month	Total	Agricultural products		Industrial raw materials and semi-manufactured goods		Finished goods		
		Total	Fat cattle	Total	Textiles	Total	Production goods	Consumption goods
Dec. 1932	92.4	84.4	60.6	87.3	59.2	113.6	115.7	112.0
Dec. 1933	96.2	93.7	70.8	89.1	68.0	113.9	113.9	113.9
Dec. 1934	101.0	100.5	76.8	92.0	80.7	118.8	114.0	122.5
Dec. 1935	103.4	105.0	91.5	93.2	88.1	119.4	113.1	124.1
Increase : 1935 as percentage of 1932	11.2	24.4	51.0	6.7	48.8	5.1	-2.3	10.8

The outstanding features of the movement of prices in Germany from 1932 onwards are that prices rose very much more in agriculture than in industry, more for imported raw materials (e.g. for textiles) than for those produced at home, and more for manufactured consumption goods than for production goods. In general this meant a much greater increase on consumption goods than on production goods. The *Institut für Konjunkturforschung* has calculated that prices of consumption goods rose by about 13 per cent. from 1933 to 1935 and those

TABLE XVIII. INDEX NUMBERS OF THE COST OF LIVING, 1932-1935  
(Base : 1913-14 = 100)

Month	Total	Total without rent	Food	Clothing
Dec. 1932	118.4	117.7	109.0	112.4
Dec. 1933	120.6	120.4	117.8	108.2
Dec. 1934	122.2	122.4	119.1	116.1
Dec. 1935	123.4	123.9	120.9	118.4
Increase : 1935 as percentage of 1932	4.2	5.3	11.1	5.3

of production goods by only 3 per cent.<sup>1</sup> As shown above, the movement of production was exactly the opposite. There was a great increase in the production of investment goods and only a slight increase in the production of consumption goods. It may be asked why the industrial production of consumption goods did not increase more than it did, although the money demand, as shown by the statistics of the national income and of total wages, had risen by 25 per cent. and productive capacity and labour were lying idle. The explanation is obviously to be found in the following factors :

(1) the change deliberately produced in the price structure in favour of agriculture, which meant that a larger fraction of income had to be spent on the inelastic demand for foodstuffs ;

(2) the increase in costs which was due to the rise in the prices of imported goods and the use of more expensive substitutes produced at home, and which primarily affected the consumption goods industries, the raw materials for which were more dependent on imports than were the production goods industries ;

(3) the definite scarcity of certain commodities, which prevented any increase in the production of consumption goods (shortage of raw materials) or made it difficult to increase consumption (restriction of imports of foodstuffs and

<sup>1</sup> INSTITUT FÜR KONJUNKTURFORSCHUNG : *Vierteljahrshefte*, 11th year, 1936, No. I, Part B, p. 16.

manufactured articles as part of the centralised foreign trade policy).

For all these reasons the increase in the volume of credit did not produce a corresponding increase in the volume of commodities available for the market. In reality the supply of commodities was not perfectly elastic. Prices therefore rose, and especially the prices of consumption goods.<sup>1</sup>

### CONCLUSION

The German work creation policy cannot be taken as a test case showing the typical effects of such a policy on the economic system as a whole. In the first place, there was the essential fact that the German experiment was carried out within an economic system that was already isolated by strict measures concerning the movements of foreign exchange. The work creation and rearmament programmes gradually accentuated this isolation and made it necessary to have complete Government control of foreign trade and the balance of payments. The growing divergence between the internal and external values of the currency had to be neutralised by subsidies to exporters and resulted in a considerable rise in import prices. Furthermore, the secondary effects of the work creation schemes were to a great extent obscured and forced into the background by the rearmament measures that followed them. That is probably one reason why the transition from a State-engineered business revival to a recovery based on private initiative was not a success. So far as can be seen from the situation in the summer of 1936, the work creation policy, which was originally intended merely to give an impetus to business activity, has become a more or less permanent measure. It is significant that it is already being suggested that, if the expenditure on armaments were to fall to a lower level, house building might act as a kind of third series of work creation measures, with the help of public moneys.<sup>2</sup> In fact, however, this rôle

<sup>1</sup> On this subject cf. the following passage in the report of the *Reichs-Kredit-Gesellschaft* (p. 17): "The rising volume of credit brought with it an increase in the volume of investment goods, for the majority of which there was as a rule no regular market — e.g. motor roads, development works, administrative buildings, armaments, etc. — and at the same time a great decrease in the volume of production and stocks of marketable and saleable commodities for daily use and consumption. It is clear without further demonstration that this may in the long run produce price discrepancies."

<sup>2</sup> INSTITUT FÜR KONJUNKTURFORSCHUNG: *Vierteljahrshefte*, 10th year, 1936, No. IV, Part A, p. 402. Cf. also the address given by the Minister of Finance,

has been taken over, since the autumn of 1936, by the Four-Year Programme, which is mainly destined for the development of industries producing substitutes for raw material.

The most striking features of the German work creation measures were the absorption of a large fraction of the unemployed outside the process of production, the serious disequilibrium that developed between production and consumption (connected with the above-mentioned hindrance of their secondary effects and with the difficulties in foreign trade), and the tendency to a rise in prices which was very difficult to check. In the financial field the whole banking system was saturated with Government credit, while at the same time the volume of private credit decreased because of the more liquid situation of the economic system. Over against the increased indebtedness of the Reich must be placed a considerable increase in the current Budget receipts, which was, however, entirely absorbed by expenditure on armaments.

The disequilibrium that had become visible in 1935, both in production and in credit, and which was clearly recognised in Germany itself<sup>1</sup>, led to efforts to progress along a new path. The aim of the Government now was to place a check on credit expansion and to finance further rearmament as far as possible out of the Budget (i.e. out of current income) and out of loans (i.e. out of savings).

The main reason for this change of method lies in the distinction that is drawn between "inflationary" and "compensatory" credit expansion. The latter term denotes credit expansion up to the point where the existing unemployed reserves of workers and means of production are absorbed; in this case an increasing demand for money is (generally) followed by a corresponding increase of production, and prices will rise at most to the extent that the supply of commodities lags behind the demand. In this case there is no run on the means of production which could give rise to an increase in prices. The increase in purchasing power is offset by the increase in production. According to the German view, the limits of this

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COUNT SCHWERIN VON KROSIGK, at the *Institut für Weltwirtschaft*, Kiel, on 27 November 1935, quoted in the *Report of the Director of the International Labour Office*, 1936, pp. 23-24.

<sup>1</sup> Cf. the address by the Minister of Finance referred to in the preceding note, and the report of the *Reichs-Kredit-Gesellschaft* already quoted, pp. 35-36; *Frankfurter Zeitung*, 6 Dec. 1935: "Der Grundzug dieser Konjunktur"; *Wirtschaftskurve*, 1935-36, No. III: "Grenzen kompensatorischer Kreditschöpfung".

latter type of credit expansion do not have to wait until all the means of production in the whole economic system are being employed but are reached as soon as all the means of production in a single sector are being used, because the "specific" factors of production, whether plant or workers, cannot be transferred indiscriminately. This position has been reached in the capital goods industries in Germany, which are now employed up to the limit of their capacity as a result of the rearmament programme.<sup>1</sup> The only comment that will be made on this line of argument here is to point out that in any case the supply of commodities in a non-autarkic economic system cannot be perfectly elastic if currency difficulties, as in the case of Germany, make it impossible to obtain certain factors of production from abroad without an increase in prices (expressed in the national currency).

This new policy requires that the present level of taxation should be maintained, although the tax revenue in the financial year 1935 exceeded the peak reached in 1929-30<sup>2</sup>; for 1936 it is estimated that a further increase of 1,000 million RM. in tax revenue will be necessary.<sup>3</sup> At the same time the authorities responsible for financial policy consider that the newly formed money capital should continue to be used exclusively for the consolidation of the National Debt. Since 1933 there has been little capital available, except from the savings banks

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<sup>1</sup> This train of thought has found its clearest expression in the article in *Wirtschaftskurve* cited in the preceding note (p. 238): "It is theoretically conceivable that the policy of economic stimulation (e.g. by a reduction of taxes) could have been directed to the production of consumption goods, in which there is still ample room for development. But at the present day Government orders are, not without serious reasons, being directed in undiminished or increased concentration, as up to now, towards the investment goods industries, whose producing power is already declining. The main purpose for which these orders are now given is not to breathe fresh life into the economic system but to promote the rearmament of Germany. From the purely economic point of view there would be every incentive to use the regulative power of the State to direct an increasing demand primarily into those fields of the economic system that have hitherto been neglected; but, in the political situation in which we perforce find ourselves, such freedom to act on purely economic principles does not exist. It follows that, from the point of view of credit policy, it is of little importance that the consumption goods industries are not fully employed. It is on the capital goods industries that calls are now being made, and if these calls are to be financed by the method of credit expansion applied immediately after the depression, this would lead imperceptibly from compensatory to inflationary credit expansion. The essential point is not whether an increase of purchasing power could still be offset in a few sections of the economic system by an increase in production; the question is whether this possibility exists in the section for which purchasing power is actually available."

<sup>2</sup> INSTITUT FÜR KONJUNKTURFORSCHUNG: *Wochenbericht*, 5 Feb. 1936.

<sup>3</sup> Speech of Mr. REINHARDT, Secretary of State, at Eisenach (*Frankfurt Zeitung*, 13 May 1936).

and the insurance institutions.<sup>1</sup> From the end of 1932 to the end of 1935 the new capital accumulated by the savings banks was about 2,500 million RM. (not including purely book increases resulting from the revaluation of the currency), and up to 1934 it was used for paying off obligations incurred during the credit crisis of 1931 ; for the insurance institutions, the figure was about 2,000 million RM. In actual fact, these were the two main sources used for consolidating about 1,650 million RM. of short-term National Debt in 1935. The formation of new capital, however, is still considered insufficient in relation to the volume of debt to be consolidated.<sup>2</sup>

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<sup>1</sup> REICHS-KREDIT-GESELLSCHAFT : *op. cit.*, pp. 49-50 : " Industry has been using its surpluses to finance its own needs, and since 1935 also, and on an increasing scale, to buy up other undertakings. "

<sup>2</sup> The report of the Reichsbank for 1935 says : " The formation of new capital is still far short of the extensive requirements. " (*Frankfurter Zeitung*, 19 March 1936.)