The German Currency Reform and the Revival of the German Economy

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After the collapse of Germany in 1945 the German economy rapidly deteriorated into a barter economy in which money served neither as a unit of account, nor as a means of payment (except for the purchase of the meagre official rations when they were obtainable), nor as a store of value. The period which ended with the currency reform of June 20th, 1948, offers to the economist a unique illustration of the situation which is so often described in text book discussions leading up to the analysis of the advantages of money: individuals and business firms acquired most of the commodities they wanted by exchange against commodities they had to offer, and a whole series of exchanges were sometimes necessary to obtain the desired commodity. Every firm had several specialists, called " compensators ", on its staff. If, for example, cardboard for packing was needed, the compensator might be obliged to barter the plant's own products for typewriters, the typewriters for shoes, and the shoes for cardboard. All this was not only illegal but involved tremendous costs. In one case known to the present writer five long trips by a compensator were required to obtain a case of special varnish, whereas formerly a postcard dropped into the post box would have been sufficient.

Workers and employees also insisted on being paid partly in kind, and bartered the commodities they received against others which they needed. Most people had no inducement to earn more money than was required to buy the rations at prices which were, on the whole, still fixed at the pre-war level. It was profitable for a man to be absent one or two days a week from his job if he could use the time to cultivate his own garden, to forage in the countryside for food, or to operate in the black market. Accurate accounting was impossible for firms as well as for consumers, because there was no market in which a common price for a commodity could establish itself; each purchase carried out in the black market (whether made by way of the transfer of money or by way of barter) was made at a unique price which was determined by the bargaining power of the individuals concerned, a price which might easily be twice as high as the price at which some other similar transaction was taking place somewhere else at the same moment. The economy was "organised" along lines such that the self-interest of individuals and firms was strictly opposed to the common interest. Working at a regular job was the least profitable occupation, and mere survival necessitated breaches of the law. By the middle of 1948 the economy had reached a state of paralysis resulting in near-starvation for a large part of the population.

It is against this background that the currency reform of June 20th, 1948, has to be considered.

I

The Technique of the Reform

Outside Germany it is widely believed that the main point of the German currency reform was the exchange of ten Reichsmark (RM) for one Deutsche Mark (DM), and the scaling down of all claims in the same ratio, except for claims against the Reich, which were cancelled. Actually the procedure was more complicated, and when subsequent developments are taken into account, it appears that the ratio of 10 : 1 is definitely wrong. It is true that on the first day of the reform everybody had to pay his RM notes into an account, and that he was promised DM to the extent of 10 per cent. of the sum constituted by the RM notes he had paid in *plus* his RM bank balance. He could dispose of 50 per cent. of his new DM bank balance (the so-called " free account ") after approval by the tax authorities, whereas the other 50 per cent. were blocked. Even at this stage, however, the ratio of 10 : 1 did not apply to everybody. Each person received 60 DM (40 DM immediately and 20 DM later) as " Kopfgeld " (*per capita* allocation) in new bank notes, in exchange for the same number of RM notes. A family with three children, which in this way received 300 DM " Kopfgeld ", and had, say, a bank balance of 2,700 RM after paying in its RM notes in excess of those which were used to obtain the " Kopfgeld ", obtained 300 DM in exchange for 3,000 RM, and the ratio of 10 : 1 applied. But if the family had no bank balance, it received 300 DM for 300 RM, i.e., the ratio was 1 : 1. On October 1st it was further decided that of the 50 per cent of the DM bank balances which were originally blocked, 70 per cent. were to be cancelled, 20 per cent. were to be released, and 10 per cent. were to be used later for investment in medium and long-term securities.

The cancellation of 70 per cent. of the blocked accounts reduced the ratio from 10 : 1 to 10 : 0·6 or 16 : 1. This cancellation of DM was definitely a psychological error. The Germans were quite willing to have the RM cancelled, but the fact that, a few months after the reform, the occupying powers should cancel part of the newly created DM seriously undermined their confidence in the new currency. Moreover, the change in the ratio did not apply to private claims, so that the holders of money were penalised as compared with the holders of private claims, and this accentuated the belief of the man in the street that holding cash was the least advantageous thing to do.

Not only individuals but also firms had to be provided with DM on the day of the currency reform if they were to be able to pay their workers, and to transact business, in the week following the reform. Firms were entitled to 60 DM per employee ; against these 60 DM 600 RM were cancelled ; but again, if a firm did not have the necessary RM balance it could obtain these funds at the ratio of 1 : 1. The

60 DM per employee were often not sufficient to meet the first week's wage payments, and, in many cases workers gave credit to the firms in that week by accepting less than their full wage. After the first week, wages could be paid either out of the receipts from sales to consumers, or out of the 50 per cent. of the new DM balances which were gradually released by the tax authorities, or out of funds borrowed from the banks.

Public bodies (the states, now called "Länder", and the municipalities), as well as the German Railway and German Post Office, also had to be provided with money until their receipts could catch up again with their expenditures. All RM balances held by public bodies were completely cancelled, and the public bodies obtained a gift of DM equal to their average monthly receipts between October 1st, 1947, and March 31st, 1948. As it became known beforehand that RM balances would be cancelled, the public bodies, whenever possible, refused to accept payments of taxes in RM in the weeks just preceding the reform; and the careful city administration, which had insisted on prompt payment of taxes and had kept liquid, was penalised as compared with the careless city administration which had large claims outstanding. The Railway and the Post Office also lost all their RM balances, and obtained a gift in DM to the extent of one half of their average monthly receipts over the period October 1st, 1947, to March 31st, 1948. The military governments of the three zones obtained DM to the extent of 770 millions.

The total volume of RM notes which were paid in during the first week of the reform amounted to RM 13·5 milliards, and a total of RM 109·8 milliards of bank balances were declared. It should be noted, however, that not all the RM notes outstanding were paid in, for fear that black market operations might be traced if an inordinately large volume of RM notes were delivered up.

The volume of DM which the currency reform created can be seen from the following table. (The figure for the "free accounts" is only approximate; they were only gradually released in a process that was roughly completed in January, 1949). This block of DM, which was not created by bank credit, we shall call the "fiduciary issue" of DM.

Table I: Volume of DM Created by Currency Reform.

	Millions of DM
"Kopfgeld"	2,850
Initial dotation of the *Länder* and municipalities	2,360
Initial dotation of business, and of the Railway and Post Office	810
Military Governments	770
"Free accounts" (including the 20 per cent. released in October from the "blocked accounts")	5,500
TOTAL	12,290

The technique of the currency reform cannot be fully understood without a knowledge of its effects on the banking system. In Germany there are now three layers of banks: the commercial banks, the central banks of the *Länder* (*Länderbanken*) and, on top of these, the *Bank Deutscher Länder*. This complicated system had already been introduced by the occupying powers, before the currency reform, in the desire to break up the monopoly of the Reichsbank and to create a kind of Federal Reserve System. But, what is not common to the Federal Reserve System, a super-central bank was created (the *Bank Deutscher Länder*) in which the central banks hold deposits and from which they can borrow. The central banks (*Länderbanken*) might just as well be abolished, and the commercial banks put in direct contact with the *Bank Deutscher Länder*. This middle layer of central banks does not perform any useful function which could not be performed by the *Bank Deutscher Länder* and the commercial banks. But the disappearance of the (superfluous) central banks would restore something like the old relations between commercial banks and the Reichsbank, and the aversion, particularly of the American authorities, to the monopoly of a single central bank, together with the federalistic ideology of the western powers, stood and stands in the way of such centralisation in the banking system, although one central bank would be both cheaper and more efficient than the present hypertrophy of central banks, and although the necessity of creating the *Bank Deutscher Länder* proves that centralisation cannot be avoided. It is pretty safe to predict that some day the *Länderbanken* will disappear again; but for the present they have to be included in our account.

We start with the commercial banks. A typical balance sheet of a commercial bank before the reform would have as its main items on the assets side: (1) liquid funds in the form of cash held on deposit with the *Landesbank*, cash in vault, and balances held with other banks; (2) loans of all kinds, a small item, since firms and individuals were so liquid that they rarely needed to borrow; (3) investments in the form of government securities, which were worthless; and (4) real assets such as buildings. The main items on the liabilities side were demand and time deposits, and the shareholders' equity. The only items to which a definite figure could be attached were liquid funds and loans on the assets side, and deposits on the liabilities side.

The currency reform replaced the RM deposits of private customers by DM deposits, first in the ratio of approximately 10 : 1, and, later, after the law of October 1st, 1948, in the ratio of 16 : 1. Deposits by other banks were, however, cancelled. On the assets side all liquid funds including balances with other banks were cancelled, and the banks were given 15 DM of reserve money for every 100 DM of their liabilities in respect of demand deposits, and 7·5 DM for every 100 DM of their liabilities in respect of time deposits (including savings deposits). This new reserve money was credited to the commercial banks in the form of a deposit in the central bank of the *Land* in which they were situated. Commercial loans were reduced in the ratio of 10 : 1, and investments (claims against the Reich) were completely wiped out. Real assets were to be valued according to principles still to be determined. This procedure created a gap between assets and liabilities, the latter greatly exceeding the former. The gap was widened by the fact that banks were allowed to put into their balance sheets a figure for the proprietors' capital equal to 5 per cent. of their new demand and time deposits. In order to make the assets equal to the liabilities, the banks were given claims against the *Länder* (*Ausgleichsforderungen*) equal to the discrepancies between their assets and their liabilities *plus* capital, claims which bear interest at 3 per cent. per annum and are not marketable but can be used as collateral for borrowing from the *Länderbanken*.

The opening DM balance sheets of the central banks had to show on the liabilities side:

(1) Deposits credited to the commercial banks (*see* above).

(2) Deposits credited to the *Länder* and municipalities equal to the initial DM dotation of these public bodies.

(3) Deposits credited to the public in DM to the extent of roughly one-tenth (later one-sixteenth) of the RM deposits which they previously held in the central banks.

(4) Proprietors' capital; the RM capital required by law was replaced by DM capital in the ratio of 1 : 1.

On the assets side all liquid funds (cash and deposits held by the central banks with the *Bank Deutscher Länder*) in RM were cancelled, and the central banks were instead credited by the *Bank Deutscher Länder* with 30 DM reserve money against every 100 DM of the central banks' own deposit liabilities. The other main item on the assets side, shares in the capital of the *Bank Deutscher Länder* (even this feature having been taken over from the Federal Reserve System), could be carried at a DM value equivalent to the old RM value. Here, too, assets were smaller than liabilities, and the central banks could fill the gap with claims against the *Land* in which they were situated.

Finally, the *Bank Deutscher Länder*, which is the issuing authority for the new bank notes, had to carry in its opening balance sheet on the liabilities side:

(1) The notes issued to the public ("Kopfgeld") and the notes issued to the firms (60 DM per employee).

(2) Deposits credited to the central banks (*see* above).

(3) Deposits credited to the Railway and Post Office.

(4) Deposits credited to the military governments.

(5) Legal capital at a DM figure equal to the previous RM figure. Its main assets consisted of foreign exchange, real assets such as buildings

and, again to fill the gap between assets and liabilities, claims against the combined British and American zones.[1]

Within this general framework monetary policy can rely on two weapons, the discount rate and changes in the legal reserve requirements. The reserve requirements can be varied by the "Centralbankrat" (Central Bank Board) between 8 and 20 per cent. of demand deposits, and between 4 and 10 per cent. of time deposits. Legal reserve requirements are new for the German banking system, and the banks, which were previously accustomed to hold low cash reserves (always relying on being able to rediscount with the Reichsbank) have still to be educated to a system in which they are obliged, as part of the mechanism of monetary control, to hold a high percentage of their assets in the form of reserve money, a non-earning asset. Open market operations are not at present among the instruments of monetary control, since neither the *Länderbanken* nor the *Bank Deutscher Länder* possess marketable securities, nor are there any suitable securities in the hands of the commercial banks or the public.

To prevent inflation, the law established a fixed limit of DM 10 milliards for the note issue (a limit which, as subsequent developments showed, was too high), and restricted the volume of credit which the central banking system could give to the Bizone and to the *Länder*.

The currency reform has been criticised mainly from the point of view of social justice. Social justice would have required that all property, whether in the form of cash, of claims, or of real assets, should be treated equally. Instead, the owners of real assets were favoured as compared with the holders of private claims in the form of loans or securities,[2] and the latter were in turn favoured as compared with the owners of bank deposits, which were reduced in a larger proportion than private claims; among the owners of liquid funds those were favoured who had little cash, since they obtained the "Kopfgeld" at the ratio of 1 : 1, whereas those with "sufficient" cash (including RM bank balances) lost at the ratio of 16 : 1. Worst of all fared the holders of claims against the Reich which were completely wiped out.

The intention is that this injustice should be made good by the "Lastenausgleich" (equalisation of the war burden) which has still to be worked out. The "Lastenausgleich" is to be based on an assessment of all real assets, on the one hand, and an assessment of all losses due to bombing, expulsion from the east, reparation payments, and the currency reform, on the other. The present owners of real assets (houses, plant, inventories, etc.) would be burdened with mortgages assigned to those who have suffered loss. It is, however,

[1] Once this new system had begun to operate, rediscounts and advances appeared among the assets both of the central banks and of the *Bank Deutscher Länder*. The latter also carries the accounts into which importers pay for their imports and out of which exporters are paid.

[2] The owners of real estate have had their mortgages reduced in the ratio of 10 : 1; they continue, however, to pay interest on the full original amount of the mortgage, and nine-tenths of their payment goes to the *Land* in which the property is situated.

generally agreed that the plan is impossible to carry out. To establish the value of the remaining assets is difficult enough; to establish the losses is impossible. No data at all are available concerning the losses suffered by the refugees from the east, or concerning the losses due to bombing of personal belongings (furniture, valuables, etc.) in the west. And only quite arbitrary values can be placed on buildings, whether destroyed by bombing or still standing. Social justice is impossible to achieve under these circumstances.

The "Lastenausgleich" was supposed to be completed by the German authorities before the end of 1948, but up to the time of writing the necessary law has not been passed; the difficulties of assessing the value of lost property, and of valuing existing property, have proved so great that no agreement has yet been reached on the procedure to be followed. In addition there is no agreement as to whether the "Lastenausgleich" should be used to effect a new distribution of property or whether it should be based on the pre-war *status quo*.

A provisional "Lastenausgleich" has been worked out by the Germans providing for a capital levy of 2 per cent. on real estate of low value (up to DM 15,000) and 3 per cent. on real estate of higher values, a special payment of 4 per cent. on "necessary" inventories and of 15 per cent. on "excess" inventories, the receipts to be used for the relief of the destitute. But even this provisional solution has not yet become law. The provisions plainly show, however, the economic consequences which any "solution" of the "Lastenausgleich" is bound to involve. At a time when the German economy is in great need of new capital formation, the "Lastenausgleich" will cause capital consumption, i.e., the levy will prevent many firms from replacing their capital, while the money they pay out for the "Lastenausgleich" will be spent by its recipients on consumers' goods. As those who are destitute are morally entitled to relief, this cannot be helped. It would, however, have been wiser not to have aimed, through a final "Lastenausgleich", at full social justice, which is impossible to achieve, but instead to have written off war losses as in principle due to *force majeure*, to have made some independent provision for the really destitute in order to help them make a new start in life, and to have decided what had to be done towards this end simultaneously with the currency reform. As it is, the pending "Lastenausgleich" burdens all planning by firms and individuals with a heavy uncertainty factor; this fact exerted a marked influence on the course of events in the second half of 1948.

The currency reform was admittedly socially unjust, and will remain so no matter what form the "Lastenausgleich" takes; and, as it is difficult to see how this injustice could be avoided, there is not much point in criticising the reform too harshly on that account.

Leaving the problem of social justice aside, the reform can be criticised from a purely monetary point of view as having created "too much money". The initial creation of DM amounted to about 5·9 milliards, not counting the free accounts which were gradually released, and not counting the 20 per cent. of the blocked accounts which were released in October, 1948. These releases continually increased the volume of money throughout the second half of the year until the "fiduciary issue" reached, as was pointed out above, something like DM 12·3 milliards by January, 1949. To this block of money, which was not created by bank credit to firms, we have to add the money that was so created. Since the free accounts of firms were released only gradually, many firms, even though their bank balances might have been sufficient to finance their operations had those balances been immediately available, were obliged to borrow from the banks. They needed to do so the more, the further their operations were removed from sales to the final consumers, i.e., the longer it took for the flow of money which was set going by the spending of the "Kopfgeld" and the free accounts by the consumers to reach them. Thus *pari passu* with the gradual increase in the free accounts, an expansion of bank credit occurred. For 112 representative banks, loans to customers rose from DM 104 millions at the beginning of July, 1948, to DM 1,787 millions at the end of the year; as the loans of the 112 banks constitute roughly between 35 and 40 per cent. of the loans of all banks, total bank loans by the end of the year must have amounted to DM 4·5 to 5 milliards.

At the time of the currency reform nobody could foretell how much money would be required to keep prices at approximately the level at which they were fixed at that time; indeed, there was no agreement as to whether the currency reform would have an inflationary effect on prices or whether it would have a deflationary effect. The majority of economists expected a deflationary pressure. In fact the opposite occurred. As the effect could not be predicted beforehand, it would have been wise to have made the "fiduciary issue" as small as possible (i.e., to have given smaller "Kopfquoten", and to have chosen a larger ratio of reduction for the RM), and to have let the bulk of the DM arise through borrowing from the banks in response to the expansion of production.

This would not in itself, of course, have been a safeguard against inflation; the old banking theory, according to which money which is created by discounting eligible paper can never produce a rise in the price level because the increase in the volume of money is always matched by a corresponding increase in the volume of goods, is admittedly untenable. But the procedure suggested would have given the central banks the power to stop the expansion of money through discount policy. As it was, they had in the first months after the reform almost no power to influence the volume of money. There was no means whereby they could have stopped the gradual expansion of the "fiduciary issue". They could not sell securities, and in that way absorb some of the "free accounts" that were gradually released, since the claims which the central banks hold against the *Länder* and the Bizone are not marketable. The discount policy could not have reached the "fiduciary issue", nor could the raising of the reserve requirements have done so. The latter course of action would merely have forced the banks to borrow from the central banking system on the basis of their claims against the *Länder*; it could not have produced a reduction in the "fiduciary issue" or even a slowing down in the rate at which that issue was expanding.[1] The central banks could perhaps have slowed down the additional expansion which took place through the creation of bank credit, once it had become clear that the "fiduciary issue" by itself was becoming too large and would lead, along with the tremendously high velocity of circulation, to general price rises. Efforts were made in this direction. But to stop the expansion of bank credit altogether would have meant paralysing the productive process, since those firms which could only gradually dispose of their free accounts were obliged to borrow in the meantime if they wanted to produce at all. Moreover, the free accounts were very unevenly distributed, so that many firms would have been unable to maintain or expand their production without borrowing, even if their accounts had been released in time. Thus, banking policy could become effective only after most of the accounts had been released and a certain expansion of bank credit had taken place. If, on the other hand, the "fiduciary issue" had been kept small, a considerable expansion of bank credit could have been permitted without danger of inflation, and monetary policy could have operated effectively on a relatively large volume of bank credit, and could have kept the total volume of money at a much lower level than was possible under the procedure actually followed.

Monetary policy was further restricted in its methods of operation by the institutional arrangement according to which the *Länder*, as was pointed out above, received their initial endowment with DM in the form of a deposit in the central bank of the *Land*, and the Post Office and the Railway received theirs in the form of a deposit in the *Bank Deutscher Länder*. The expenditures of these DM increased the liquidity of the commercial banks, so that in the first months after the reform there was no need for the banks to rediscount with the central banks in order to acquire the necessary backing for their credit expansion. Here is the main source of the great liquidity of the commercial banks after the reform which surprised so many observers. Other factors contributed, e.g., the release of the second "Kopfquote" (20 DM per head) in September (amounting in the aggregate to 1,000 millions). Since the commercial banks had a like amount credited to them in the central banks, and the public left part of their new DM on deposit with the commercial banks, the latter's reserve ratio

[1] The release of 20 per cent. of the blocked accounts (i.e., of roughly DM 900 millions) in October was unjustified, for at that time the inflationary tendencies were already fully in evidence.

was increased by this procedure. The great liquidity of the banking system meant that discount policy could not be really effective. Only the raising of the reserve requirements could have dealt with the situation. But in view of the newness of this weapon for the German banks, and its unpopularity, the authorities hesitated to use it until relatively late. If the initial endowment of the *Länder*, the Post Office and the Railway had been given in the form of deposits with the commercial banks, this problem of excess liquidity would not have arisen.

When prices began to rise rapidly, and social unrest followed, the authorities did take measures to stop further expansion of bank credit. On November 10th, they restricted the rediscounting of bankers' acceptances to those with a maturity of less than ten days, except in cases where the bankers' acceptances served to finance foreign trade. On December 1st they raised the reserve requirements for demand deposits from 10 to 15 per cent. for all banks situated in places where a *Landeszentralbank* is located, and issued a warning to the banks that they should in principle not increase the total volume of lending beyond the level of October 31st. Owing partly to these restrictive measures, but partly also to other developments which we shall mention below, prices began to decline again in the second half of December.

The authorities did not make use of the discount rate in their attempt to stop further credit expansion, although an increase in the rate was seriously considered. In view of the liquidity of the commercial banks it would not have been very effective. The discount rate was kept all the time at 5 per cent. and the rates charged to customers by the banks were kept at between 6 and 9 per cent., varying according to the size of the loan and the security offered. The raising of the reserve requirements led to an increase in the rate charged to customers of about one-half per cent.

The German authorities obviously have no intention of following a cheap money policy; on the contrary, they are prepared to use the discount policy in the orthodox manner, and are able to do so without being handicapped by considerations of its effect on the prices of government securities. Germany is thus returning to the classical methods of monetary policy. As she is also returning as far as possible to a free market economy, we witness the remarkable spectacle of a country whose economy had been paralysed by a lost war and its aftermath, attempting reconstruction by organising its economy according to the "old-fashioned" precepts of the classical economists, and doing so on the whole with marked success.

II.

The Effects of the Currency Reform

The immediate effect of the reform was startling. On June 19th, a Saturday, not a single article could be seen or had in the retail shops.

On June 21st the shops were full of goods: housewares, textiles, cameras, etc. These stocks had been withheld, because with the knowledge that the reform was imminent, no trader wanted to sell against RM and be left with RM balances. The supply of goods in the retail shops, which had never been large since the end of the war, had completely dried up in the months preceding the reform. The scarcity of money in the first week forced the hidden inventories on to the market, and the dramatic change in the supply of goods was the main reason why the reform found general acceptance among the population at least in the beginning. The developments which took place during the following six months can, however, not be ascribed solely to the currency reform. The return to the free market economy for almost all industrial products (the most important exceptions being coal, iron and steel), and the Marshall aid which began to arrive in larger amounts towards the end of the year, share with the currency reform the merit of having brought about a remarkable revival of the German economy.

Many critics argue that the controls should not have been removed, or at least not so rapidly. But in view of the complete discredit into which the controls of prices and quantities had fallen, and in view of the difficulty of making the controls effective, given the weak authority of the officials charged with administering them, the bold step of removing the controls simultaneously with introducing the currency reform was undoubtedly the right policy to follow. If it was to be done at all, this was the psychological moment. The currency reform had created a new atmosphere of great expectations, an atmosphere in which other measures were willingly accepted. Had the authorities kept the controls on for a few months longer it is very probable that their removal would have been impossible to achieve. Even the socialists who began demanding the reintroduction of controls when prices began to rise lacked the courage of their convictions: when a vote was taken in Frankfurt there were not enough socialists present, and their resolution was defeated.

Under the new conditions created by the currency reform and the partial return to a free market, production increased rapidly. Unfortunately there are no figures which reflect this increase accurately. The index of industrial production which is given in Table 2 shows

Table 2. Index of Production.[1]
(1936=100)

1948		1948	
April	53	September	70
May	47	October	74
June	51	November	75
July	61	December	78
August	65		

[1] Source: *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)*, December, 1948.

an increase for the Bizone of 53 per cent. between June and December, 1948. The index, however, probably overstates the increase that has taken place. Before the currency reform, that part of production which went into hidden stocks, or was used for "compensations", was not registered; on the other hand, it is also likely that the index does not fully register the expansion that has taken place since the reform because there is still some production for hidden stocks and for transactions which are "black" in the sense that they are hidden from the tax authorities. On balance, however, it may be assumed that production did not rise as much above the pre-reform level as the index would suggest. Developments in different industries differ widely. The most marked increases are found in some semi-finished and finished products.

Table 3. Production of Selected Commodities in the Bizone.[1]

Month	*Coal* ('000 *metric tons*)	*Pig Iron* ('000 *metric tons*)	*Steel Ingots* ('000 *metric tons*)	*Trucks and Buses* ('000)	*Passenger Cars* ('000)	*Freight Cars*	*Bicycles* ('000)	*Leather*[2] *Shoes* ('000,000 *pairs*)	*Synthetic Staple Fibre* ('000 *metric tons*)
1936 average	9,747	1,046	1,187	3·0	14·5	—	71·6	3·3	1·9
1948: Jan.–June average	6,796	298	335	1·5	1·6	16	42	1·3	2·2
July ..	7,764	402	457	2·3	2·6	41	77	2·0	3·1
August ..	7,457	433	510	2·4	2·1	51	93	2·2	3·6
September	7,569	469	571	2·8	3·5	325	107	2·6	3·8
October ..	7,868	511	610	3·2	3·8	684	116	2·6	4·3
November	7,718	493	599	3·4	4·0	729	124	2·5	4·8
December	8,096	514	612	3·9	4·3	814	127	2·6	5·2
1949: Jan.	8,205	547	651	—	—	—	—	—	—

The expansion in production was not due to an increase in employment. The number of unemployed in the Bizone actually rose after the reform from 442,000 in June, 1948, to 743,000 in December, and, owing partly to seasonal influences but partly also to the fall in prices, it rose further to 944,000 in January, 1949. The increase in production is to be explained by a combination of several factors:

(1) A decrease in absenteeism. In May, 1948, a worker stayed away from his job on the average 9·5 hours a week; in October he was absent only 4·2 hours a week.[3] This change was clearly a direct result of the currency reform which made it worth while again to work for money.

[1] Source: *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)*, December, 1948, or *Statistische Monatszahlen*, edited by the *Statistische Amt des Vereinigten Wirtschaftsgebiets*, December, 1948. January figures are from the report on the economic situation in January, 1949, published by the *Verwaltung für Wirtschaft des Vereinigten Wirtschaftsgebiets.*

[2] Footwear other than leather footwear increased from 540 thousand pairs in June, to 1,578 thousand pairs in December, 1948.

[3] *Statistische Monatszahlen, op. cit.*, December, 1948, p. 17.

(2) Greater productivity per man-hour resulting from better living. No figures are available for this increase in productivity per man-hour, except for coal miners, where the increase was inconsiderable. But as the coal miners enjoyed a privileged position prior to the currency reform their case cannot be generalised. Employers in most industries agree that an increase in productivity has taken place.

(3) A fall in "real" costs. Many persons formerly engaged in barter transactions (such as the compensators), or kept busy with paper work connected with the controls, could now be redirected into more productive occupations. And firms, which previously had often been obliged to produce, solely for bartering purposes, commodities which were not strictly in their line of business, could now concentrate on the production of the commodities for which they were best equipped.

(4) There is finally the supply of raw materials brought in by Marshall aid. These began to arrive in considerable quantities, however, only towards the end of the year, and it is to be presumed that immediately following the reform many firms still had stocks of raw materials left over from the end of the war.

We turn now to the price developments after the currency reform. Unfortunately, no adequate price index is available. The cost of living index for the Bizone (July, 1948: 138 December, 1948: 144) is totally misleading. It is heavily weighted with the prices of commodities that are still controlled, in particular rents and agricultural prices. Agricultural products are largely bought in the black market where prices are many times higher than the controlled prices. Thus, in November, a pound of butter cost in the black market about 20 DM, as compared with the official price of 2·56 DM. If we take industrial prices, we find that ordinary men's shirts had risen in price between July and December, 1948, by between 144 and 176 per cent., and cost in December between 13·90 and 18 DM according to the locality; stockings had risen (in Hamburg) by 342 per cent. and cost 12 DM in December; men's shoes had risen (in Hamburg) by 118 per cent. and cost 45 DM in December.[1] Most other consumers' goods had risen somewhat less than this, but the general tendency throughout was, until the middle of December, sharply upwards.

When we consider that a coal miner's monthly income before taxes in July amounted on the average to 269 DM, and that in October it was still only 273 DM, and that the incomes of other industrial workers are considerably lower than this (the hourly wage of a skilled worker in September, 1948, ranged from 1·14 DM in Bavaria to 1·42 DM in Hamburg), it is not surprising that the price rise led to social unrest. On the whole, however, German workers showed astonishing restraint in their wage demands; their attitude is governed

[1] These figures are taken from the *Statistische Monatszahlen*, *op. cit.*, p. 44.

by a quite justified inflation complex and the knowledge that wage increases will in the end be nullified by further price increases.

After the currency reform, prices in Germany had to be formed, as it were, *ab ovo*. The relative structure of the controlled prices which existed at the moment of the reform did not reflect the relative scarcities of the various commodities. A new price structure expressing these relative scarcities had to be found without any guidance from yesterday's prices. The sellers at first simply tried out whatever prices they thought they could charge, and as the money stream was continually increasing up to the end of the year they continually raised their prices. The process of trial and error by which the new prices were formed manifested itself in the co-existence of substantially different prices for the same commodity sold at the same time in different shops; and as between different localities the price differences were still greater. Competition worked only slowly, because the sellers lacked adequate information about the market and because, after almost twenty years of planned economy and controlled prices, they had to learn all over again that watching the market in order to take advantage of price differences is of the essence of the trader's job. Another effect of the long period of price control was that the producers, being used to the formula "price = cost plus a reasonable margin of profit", continued to charge prices which reflected their costs, and failed to take advantage of the high level of demand which would have allowed them to charge higher prices and make larger profits. Wholesalers and retailers, on the other hand, being closer to the consumers, reacted quickly to the increase in the demand by raising their prices to what "the traffic could bear", with the result that the big profits in this period were made not by the producers but by the traders.

The few figures quoted above give some indication of the change in the relative price structure which took place in the second half of the year. The whole list of retail prices given in the source from which those figures are taken shows that the price movements for individual commodities over the period June to December, 1948, ranged between a decline of ·6 per cent. (for pots and pans) and a maximum increase of 342 per cent. (for stockings). A complete reversal of price policy for foreign commodities accentuated the change in the relative price structure. Whereas before the reform the Joint Export-Import Agency (Jeia) bought the imported commodities at the world market price but sold them in Germany at the controlled price,[1] after the reform the imported commodities were (with some exceptions) priced in DM on the basis of their world market price and an exchange rate of 30 cents. for the DM. This led to sharp price increases for these commodities.

[1] At the same time German export commodities were bought at the controlled prices and sold at world market prices, the profits from these transactions being used to finance the losses on imports.

The major part of the agricultural sector (along with certain basic industrial products on which controls continued) was excluded from this process of finding a new price structure conforming to the relative scarcities of the products. Farmers, confronted with extraordinarily low prices for their own products compared with those of industrial products, are at present in a difficult position. Whereas they had been the chief beneficiaries of the situation existing prior to the currency reform, they are the main sufferers under the new "régime". They find their own remedy, of course, by selling a large part of their produce on the black market. The agricultural problem in Germany is one to which it is difficult to find a satisfactory solution at present. On the one hand, it is impossible to remove the controls from industrial products while retaining them on agricultural products without creating a black market in the latter. On the other hand, if food prices were to be decontrolled, they would rise (as the black market prices indicate) to levels such that the poorer section of the population would be unable to buy sufficient food. The granting of subsidies to agriculture is not a practical solution, given the financial position of the *Länder*. Under present conditions, then, it seems that the best policy would be to make the black market legal, i.e., officially to recognise two markets, the controlled and the free market. In the controlled market agricultural products would be, as now, sold at low prices in quantities that guarantee to each family a subsistence minimum. And the farmers would be, as now, obliged to deliver these quantities.[1] What they produced above this level they would have the right to sell in the free market to those able and willing to pay the higher prices. This policy would merely legalise the present state of affairs. Once the supply of agricultural products was sufficiently increased, through imports, the system of two markets could be dropped.

A complete change in the relative price structure in Germany was to be expected. As was pointed out before, however, the general price rise came as a surprise to most observers. The rise was due to the continuous increase in the volume of money, the high velocity of circulation, and, finally, the renewed hoarding of goods which developed in the latter part of the year. On the first of these factors we have already commented. The velocity of circulation cannot be measured statistically, but all observers agree that it was extraordinarily high in the second half of the year. There were two reasons for this: The first was the pent-up demand of households and firms. For several years many households had been unable to buy articles of the most common necessity. Losing a needle, breaking a cup, tearing a hole in a stocking could be a major catastrophe. It was therefore to be expected that as soon as commodities appeared on the market there

[1] There is always a danger that it may prove impossible to collect the necessary quantities from the farmers, a danger which is more acute the higher the prices of industrial products rise. The fall in the prices of the latter which occurred at the end of the year will doubtless help to overcome the resistance of the farmers.

would be a rush to buy. Secondly, the Germans, with the experience of two inflations, and of the severe losses they implied for holders of cash, instinctively distrust any kind of currency. And this distrust was enhanced by the price rise that followed the currency reform, and by the cancellation of 70 per cent. of the new blocked DM accounts. The Germans have a strong preference for illiquidity, and try to get along with the absolute minimum of cash. It is this attitude towards money which endangered the success of the currency reform from the beginning. A further factor which helped to undermine the Germans' confidence in the new currency were the low free market rates for the DM quoted in foreign centres ; a large part of the population closely follows movements in these quotations. The rate quoted for 100 DM in Zurich was 30 Sw. Frs. in July, and it had fallen to 18 Sw. Frs. at the beginning of December ; the rate recovered to 30 Sw. Frs., however, at the beginning of the new year. (The cross rate corresponding to the official 30 cents. rate would be 100 DM= 123 Sw. Frs.). Although the market in Zurich is extremely thin, and the rate that establishes itself there is the result of a supply of and demand for smuggled DM, so that it is itself an artificial rate, the knowledge in Germany that such low rates were quoted abroad was sufficient to affect the attitude of the Germans towards the new currency.

The third factor responsible for the price rise, the new hoarding tendencies on the part of firms, which began once more to withhold commodities from the market, was due in the first place to the expectation of further price rises, and in the second place to the pending " Lastenausgleich ". It was not yet known what the date would be for the assessment of property, and firms were anxious to have as large a part as possible of their assets in invisible form. It might have been expected that to this end they would have shifted out of commodities into banknotes, since the latter can be more easily hidden. But, since it was known that the existing issue of notes was going to be replaced later on by a new issue, so that the holdings of bank notes would in the end have to be disclosed, it seemed wiser on the whole to hide commodities in preference to notes whenever possible.

It is worth noting that deficit financing on the part of the *Länder* was not a factor contributing to the inflation, at least if we disregard the spending of their initial endowment of DM. This endowment was used up by September, and the budgets of the *Länder* taken as a whole were roughly balanced after that date. There are, however, wide differences between the *Länder*. There exists for Western Germany no common pool into which some taxes, at least, are paid in order to be redistributed, according to some reasonable criterion, among the *Länder*. Even the receipts from duties on imported goods go to the *Land* which the goods happen to enter first. The result is that some *Länder*, in particular Hamburg and Rheinland-Westfalen (which includes the Ruhrdistrikt) have surpluses, while other *Länder*, such as Schleswig-Holstein, which has the heaviest expenses for refugees from the east, and the *Länder* of the French Zone, which have relatively heavy occupation costs, have deficits and are in debt to the Central Banking System.[1]

Given the lack of confidence of the Germans in the new currency, and given the renewed hoarding tendencies, it was essential that a slight shock should be administered to the German economy. The price rise had to be brought to a standstill, or, better, the price movement had to be reversed. The monetary authorities, by tightening the monetary controls (as was indicated above), did, indeed, succeed in reversing the price trend. Other factors contributed to the same result. The Bill which was passed in Frankfurt providing for a provisional "Lastenausgleich" settled an important issue: the property assessment was to be based on the property held at the date of the currency reform (at which date the firms had been obliged to submit a complete inventory of their assets); the Bill thus removed an uncertainty which had led to the hoarding of commodities. And, although the Bill was held up in the complicated law-making machinery which now exists in Germany, and has not yet become law at the time of writing, no change in the date for the assessment of property is expected by those concerned. Heavy tax payments due at the end of the year also led to dishoarding of commodities. As a result of all these factors prices began to fall in the latter half of December, 1948, and continued to fall in January, 1949.

The fact that prices are high in relation to incomes, is, of course, an inevitable reflection of the poverty of Germany consequent on the war and its aftermath. No monetary policy or administrative measures can change this fact, except indirectly through their influence on the total output of the German economy. But the inequities which accompanied the inflation in the second half of 1948 (high profits of firms, and particularly of wholesalers and retailers, at the expense of the real incomes of wage and salary receivers) were an avoidable by-product of the currency reform which, given the unwillingness of the Germans to hold cash, had endowed the German economy with too much money. However, the phase of inflation, and of lack of confidence in the new currency, seems to have come to an end with the beginning of the new year.

III

Weak Spots in the German Economy

The currency reform, coupled with the partial return to a free market economy, was, all criticism notwithstanding, a tremendous success. No statistics can give an adequate picture of the change which the

[1] It is clear that in the sphere of public finance, just as in the sphere of banking, decentralisation been pushed too far.

German economy has undergone since the reform. Only direct observation of the standard of living of individual families, of the methods of doing business of individual firms, of the traffic on the roads, of the reconstruction work in towns, before and after the reform, gives a true impression of the extent of the revival which followed the reform. There remain, however, two main weak spots in the German economy: capital formation and foreign trade.

After the tremendous loss of real capital during and after the war the greatest need for the German economy is undoubtedly the formation of new capital. The internal sources from which this capital can come are the savings of individuals, the profits of firms, and, possibly, surpluses in the budgets of the *Länder* (which can, however, be excluded for all practical purposes in the near future), and, finally, "forced saving" brought about by the expansion of bank credit.

The will, as well as the ability to save is naturally weak in Germany at present. Replies to questionnaires sent out to individuals indicated[1] that in June (before the reform) 59 per cent. of those questioned intended to save in the future, in July 49 per cent., and in October (after the cancellation of part of the blocked accounts) 32 per cent. In fact, all through the second half of 1948 out-payments from savings accounts exceeded in-payments. Some attempt has been made by firms to tap savings directly by floating long-term bonds carrying interest rates of between 5 and 6·5 per cent., the issue price usually being 98. Few such bonds have, however, found buyers. In January, for the first time, in-payments on savings accounts exceeded out-payments, probably as a result of the reversal of the price movement. This fact confirms the belief that the crisis of confidence in the DM has passed. Nevertheless, large savings cannot be expected in the near future.

Turning to the second source of capital formation, profits, we must consider the problem in conjunction with the present tax burden. Let us take the example of an unincorporated firm with a capital of DM 1,000,000 and an annual profit of DM 100,000, and suppose that the firm does not evade taxes. According to the new tax rates established after the currency reform, the owner of this firm, (assuming him to be a bachelor) has to pay an income tax for the year of DM 76,746, a property tax (which is *not* deductible for purposes of the income declaration) of DM 25,000, and a church tax of DM 3,000,[2] or a total of DM 104,746, i.e., more than 100 per cent. of his profits. It is true that a maximum of DM 10,000 can be reinvested in the firm without being subjected to tax; but it is also clear that unless the owner of the firm has income from another source he will be unable to reinvest anything at all. He is obliged to consume capital. If

[1] The results are reported in the *Zeitschrift für das gesamte Kreditwesen*, January 1st, 1949, pp. 28f.

[2] The rate varies according to the *Land*. The rate assumed in the text is that of the *Land* "Südbaden".

his profits were DM 200,000 he would pay in taxes a total of DM 199,246. Actually the situation is even worse than these figures suggest, since depreciation has to be calculated on the basis of the original or historical cost of the equipment. In view of the price rise that has taken place, depreciation thus calculated is insufficient to finance replacements. With these tax levels, capital formation out of profits by unincorporated business is out of the question, and it is no wonder that tax evasion occurs on a large scale. Corporate business is in a better position. There is a flat rate of 50 per cent. on corporate profits (dividends are, of course, subject in addition to the income tax payable by the recipients). As corporations do not pay the church tax, the total tax (including the property tax) on a firm with an annual profit of DM 100,000 and a capital of DM 1,000,000 would be DM 75,000, leaving a profit after taxes of DM 25,000.[1]

It is likely that a lowering of the tax burden (which in fact already began on January 1st, 1949, with a reduction in the property tax) would not reduce tax receipts and might even increase them. At the same time it would undoubtedly augment the volume of investment even were the reduction of the tax burden, through its effect on incentives, to produce no rise in profits before taxes. This is so because "black" profits will seldom be used for investment in real assets, since the latter cannot easily be hidden from the tax authorities. A lowering of the tax burden, by reducing or even eliminating tax evasion, would release for investment sums which, because they are retained illegally, are now by necessity used for consumption.

The third source, forced saving through the expansion of bank credit, undoubtedly played a major rôle in the second half of 1948. It was the granting of bank loans for financing investment goods which largely accounted for the fact that the production of investment goods rose even faster than that of consumers' goods during that period. But, given the restrictions imposed on bank lending by the authorities towards the end of the year, this source is not likely to account for much new capital formation in the near future. Another source may eventually be provided by the release of the 10 per cent. of the blocked balances which, according to the original intentions, are supposed to be released for investment purposes some time in the future.

If the German economy is to make further progress, it is necessary not only that new capital should be formed, but also that it should flow into the right channels. Highest on the list of industries which should be expanded are the export industries. The increase in exports ought to take priority even over the reconstruction of dwellings. In fact, however, for reasons which we shall mention below, it has not so far taken first place. Such investment as has taken place since the currency reform has gone largely into the reconstruction of buildings

[1] A by-product of these tax laws is a large number of applications for incorporation by unincorporated firms.

(particularly of retail shops) and into the expansion of domestic industries.

According to Jeia statistics, the total imports of the Bizone amounted in 1948 to $1,386 millions, and the total exports to $599 millions. In the second half of the year (i.e., after the currency reform) imports amounted to $750 millions and exports to $369 millions.[1] Considerably more than half of the total imports ($787 millions) thus came in on credit in 1948.[2] If the Bizone is to live within its means, and at the same time maintain even its present standard of living, exports must be increased by roughly two-and-a-half times, and this increase must be accompanied by an increase in total output by at least the same amount. All this has to be accomplished by 1952 if Germany is to become economically "independent" by the time when Marshall aid ceases. The long term European Recovery Programme for the Bizone is even more ambitious. It envisages for the fiscal year 1952-53 exports as high as $2·7 millards, i.e., exports which are four-and-a-half times as high as those of 1948. It is difficult to see at present how this "target" can be reached. The increase in exports must mainly take the form of an increase in the exports of finished goods. In 1948 more than half of the total exports still consisted of coal and timber, an unnaturally high percentage of raw material exports for an industrialised country.

An increase in the exports of finished goods is, however, hindered by several factors: First, the German exporter cannot adequately explore the foreign market. It is true that most of the red tape that had paralysed exports before December 1st, 1948, has been removed by a new regulation according to which the German exporter can now directly negotiate with the foreign importer (which was impossible previously since the export business was in the hands of the Jeia and the exporter had contact only with that organisation). But it is still very difficult for him to travel abroad, and impossible for him to set up agencies abroad. He is, therefore, unable to find out for himself what sells well in the foreign market, as he could if he were able to

[1] See *Monthly Statistical Bulletin of the Control Commission for Germany* (*British Element*), Vol. III, No. 12, p. 100. German statistics give different figures. For the second half of 1948 imports are given as DM 1,994 millions and exports as DM 1,332 millions (*Monatliche Aussenhandelsstatistik des Vereinigten Wirtschaftsgebiets: Zusammenfassende Ubersichten*, December, 1948). According to these figures, the ratio of imports to exports is much smaller than that given by the Jeia figures. The difference is explained in part at least by the following discrepancies between the two sets of statistical records: (1) The Jeia statistics include some "invisible" items which are not included in the German statistics; (2) The Jeia statistics are based upon Jeia accounting records which are obtained from documents received during the month, and since there is a time-lag between the movement of the goods and the receipt of the documents, the figures do not give the actual movement of goods during the month. The German statistics, on the other hand, are based on records of imports and exports for the month in which the goods actually cross the frontier.

[2] There are three categories of imports: "Category A" imports are non-commercial imports paid for out of appropriate funds. "Category B" imports are commercial imports. A third category consists of the Marshall aid imports. If we take the commercial imports alone and compare them with exports, we find that the Bizone had, in the second half of 1948, an export surplus.

send out designers, technicians and commercial representatives to report on foreign styles, on technical developments, on prices, and on the potential demand for his products.

There is secondly the fact that German trade is carried on within the framework of bilateral payments agreements which, in many cases, require the periodic settlement of the clearing balance. The payments agreement with France of November, 1948, requires, for instance, that any credit or debit balance on the clearing account established in the Bank of France shall be " due and payable in its entirety on the 31st March, 30th June, 30th September and 31st December, respectively, and, on the demand of the creditor, shall be settled immediately in U.S. dollars " (Article 5). The fear of running into a trade deficit at the end of each quarter tends to promote a race between the two partners each of whom strives to achieve a quarterly surplus by retricting imports from the other, and allowing only those commodities to enter which are considered absolutely " essential ". A large part of the finished goods which Germany could export in exchange for more or less " essential " imports are not considered " essential commodities " by her trading partners. The bilateral agreements with quarterly settlements in dollars (agreements which do not even allow for discrepancies due, for example, to seasonal fluctuations which tend to balance each other out over a longer period) are thus a serious obstacle to the expansion of German exports.

Finally, there is the problem of the exchange rate. While it is impossible to demonstrate statistically that the DM is overvalued, most observers (the present writer among them) would agree that the 30 cents. rate considerably overvalues the DM, and that this rate is the greatest single handicap for German exports. It is quite true that this overvaluation may disappear if the fall in German prices which set in late in December, 1948, continues ; and in any case the adjustment of the rate must wait until a certain stability of the German price level has been reached. But if, as is likely, prices do not fall sufficiently to remove the overvaluation, the downward adjustment of the rate is the most important measure that can be taken to promote the German export industries, and to make them attractive outlets for further investment expansion. Whether such an adjustment will obtain the approval of Germany's competitors in the world market is a question which, along with other more political aspects of the foreign trade problem, cannot be discussed here.

The establishment of an appropriate external value for the DM, once the DM has " settled down " to a relatively stable internal value, is, together with tax reform, the most important step that can be taken to complete the work that was started with the currency reform.