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German Foreign Trade and the Reparation Payments

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GERMAN FOREIGN TRADE AND THE REPARATION PAYMENTS

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I

GERMAN foreign trade in 1921 displayed a striking economic paradox. It is now a commonplace that Germany's ability to pay reparations¹ depends on the capacity of the export trade to expand over imports. The short-lived attempt to meet the payments required by the London agreement of May 5, 1921 was un-

1. Since our concern in this paper is not with the reparation problem as a whole, but only with its foreign trade aspect, it is unnecessary to consider the distinction between ability to pay and ability to transfer the payment. The latter is a question of foreign trade; the former is primarily a question of national resources and income, when viewed from the standpoint of the German people, and primarily a question of the budget, when viewed from the standpoint of their government. That these and the foreign trade are but different aspects of the same problem, and closely interrelated, is of course obvious. The foreign trade as here discussed, omits reparations in kind, which have no direct connection with the exchange and price conditions we are concerned with.

doubtedly the chief cause ² of the precipitous decline of the mark between May and November. According to theory, the depreciating foreign exchange value of the mark should have stimulated exports and depressed imports. Much of the agitation in this country for higher duties and the American valuation plan has been aimed particularly against the expected flood of cheap goods from Germany; and similar legislation has been passed or is contemplated in Sweden, Denmark, Norway, Great Britain, Switzerland, Finland, Argentina, and Japan. The German trade statistics, however, show that instead of the expected increase of exports, the fall of the mark last year was accompanied by an increasing excess of imports over exports.

To appreciate what occurred last year one must recall Germany's pre-war trade balance. In 1913 exports amounted to about 10,000,000,000 gold marks and imports to about 11,125,000,000 gold marks; and for the five years ending with 1913 the average excess of imports was \$370,000,000 a year, the difference representing the surplus of income from foreign investments over new investment, shipping earnings, tourists' expenditures, and the like. Since the war removed most of these credits, and the shipping balance, despite signs of remarkable recovery since the Armistice, must now stand as a debit, it is evident that with a foreign trade of pre-war magnitude Germany would now need, quite apart from the reparation payments, to expand exports or reduce imports by several hundred million dollars a year. The reorganization of national production and consumption implied would raise for Germany, even were reparations canceled, as difficult a problem in foreign trade as that now facing any other nation.

To this is added the reparation charge. To pay the sum named in the Versailles Treaty, 138,000,000,000

2. See below, pp. 501-3.

gold marks,³ would require at 5 per cent interest and 1 per cent sinking fund annual payments of 8,280,000,000 gold marks. As Keynes has pointed out,⁴ to pay this bill under the plan provided by the London Settlement of last May, which called for 2,000,000,000 gold marks a year plus 26 per cent of the exports, German exports would have had to rise to 24,000,000,000 gold marks a year, or about two and a half times the pre-war export trade, and this without any increase of imports beyond their pre-war level. In the last eight months of 1921⁵ German exports actually amounted to 2,432,000,000 gold marks, or at the rate of 3,650,000,000 gold marks a year, about one-third of the pre-war figure. With exports of this magnitude, the actual reparation bill from May through December, 1921, amounted under the London Settlement plan to 1,965,000,000 gold marks.⁶ In other words, in order to meet even the relatively moderate terms of the London Settlement, Germany's exports in those eight months would have needed to exceed her imports by almost 2,000,000,000 gold marks. But, in fact, the imports exceeded the exports by 557,-000,000 gold marks. For months, therefore, before the German government announced in December⁷ that it could not meet the January and February payments of this year, the complete breakdown of the plan announced to the world last May as a final solution of the reparations problem was seen to be inevitable.

3. Including the Belgian war debt. 4. "A Revision of the Treaty," p. 71.

5. Trade statistics for the first four months have not been published.

6. According to the schedule of payments in force, the actual payments made during this period were 1,051,000,000 gold marks. Including deliveries in kind, transfers of property, etc. (5,246,000 gold marks), the total payments in 1921 were 6,424,000,000 gold marks. Federal Reserve Bulletin, March, 1922, p. 301.

7. Since that time ten-day payments of 31,000,000 gold marks have been made. These represent, apparently, merely the sums due under the 26 per cent levy on exports, no attempt being made to collect any portion of the 2,000,000,000 gold marks annual cash payment required under the London Settlement. Under a new arrangement, announced tentatively by the Reparations Commission at the end of February, the payments to be required this year are to consist of 720,000,000 gold marks in cash and 1,450,000,000 gold marks in kind.

The contradictory behavior of German foreign trade last year ⁸ is seen most strikingly by a comparison of the two boom periods which Germany has experienced since the Armistice as a result of the depreciating mark exchange. The first occurred in the fall and winter of 1919-20, and the second in the period May-November, 1921. In the earlier period the mark fell from 7.13 cents in July, 1919 to 1.08 cents in February, 1920. As will be seen from the table, the result was a pronounced increase in both imports and exports, in terms of paper marks. But on a gold basis imports declined from 1,061,-000,000 gold marks in July, 1919 to 269,000,000 gold marks in February, 1920, while exports considerably increased. This is best shown by the monthly trade balance. From an excess of imports of 890,000,000 gold marks in July, 1919 the unfavorable balance was reduced to 76,000,000 gold marks in February, 1920. In the first period of depreciating mark exchange, therefore, the behavior of the foreign trade bore out theoretical expectation. Exports were stimulated and imports discouraged.

8. Complete trade statistics for the period since the Armistice have not yet been published. For 1919 and the first five months of 1920 trade data, in paper marks, were presented by the German delegates to the Brussels Financial Conference. For 1920 complete statistics by weight are available, but only for exports are the values given.* For January-April, 1921 no figures at all have appeared, but since that time we have had complete statistics by value and by quantity for both imports and exports. Incomplete as the data are, they are yet sufficient to give the main outlines of the situation. In quantity, imports have fallen from a monthly average of 6,058,000 metric tons in 1913 to 1,570,000 in 1920 and 2,157,000 in 1921. Germany's imports in 1920 were thus about one-fourth of the quantity imported in 1913, and in 1921 were about one-third the pre-war figure. In exports the monthly average was 6,146,000 tons in 1913, 1,650,000 tons in 1920, and 1,610,000 tons in 1921. The exports have thus been about one-fourth of the pre-war figure, so far as quantities are concerned. It will be seen, too, that while imports increased about one-fourth in quantity last year over 1920, the quantity exported actually declined. The value figures are even more striking. From monthly average imports of 927,000,000 gold marks in 1913 imports fell to 571,000,000 gold marks a month in 1919-20 and 375,000,000 gold marks in 1921. Exports meanwhile declined from 841,000,000 gold marks per month in 1913 to 256,000,000 gold marks a month in 1919-20 and 304,000,000 gold marks in 1921. In other words, German exports and imports last year were little more than one-third of the pre-war figures.

* Since this note was written value statistics for imports in 1920 have been published.

GERMAN FOREIGN TRADE

	1,000,000 paper marks			1,000,000 gold marks ⁹		
	Imports	Exports	Balance	Imports	Exports	Balance
1913 Monthly average	927	871	-56

JULY, 1919 TO MAY, 1920

1919						
July	3538	570	-2968	1061	171	-890
August	3817	735	-3082	824	158	-666
September	4191	790	-3401	702	132	-570
October	5179	1089	-4090	832	175	-657
November	4446	1284	-3162	500	144	-356
December	5178	4014	-1164	489	392	-97
1920						
January	6560	3219	-3341	459	224	-235
February	5932	4262	-1670	269	193	-76
March	5683	4216	-1467	310	230	-80
April	4768	5344	+ 576	328	379	+ 51
May	5537	6647	+1110	514	616	+102
Totals	54829	32170	-22659	6288	2814	-3474
Monthly average	4984	2924	-2059	571	256	-315

MAY TO DECEMBER, 1921

1921						
May	5486	4558	- 928	373	310	- 63
June	6409	5432	- 977	392	331	- 61
July	7580	6208	-1372	407	334	- 73
August	9418	6683	-2735	463	328	-135
September	10668	7519	-3149	440	309	-131
October	13900	9700	-4200	396	276	-120
November	11912	12278	+ 366	219	226	+ 7
December	13707	14554	+ 847	299	318	+ 19
Totals	79080	66932	-12148	2989	2432	-557
Monthly average	9885	8366	-1518	373	304	- 69

9. Gold marks obtained by multiplying paper mark figure for each month by percentage of parity for that month of German mark in terms of American dollar.

In marked contrast has been Germany's experience with foreign trade during the second period of pronounced exchange depreciation, May–November, 1921. The mark fell from 1.77 cents on May 21 to $.37\frac{1}{4}$ cents on November 26. As shown by the table, imports expanded enormously from May to October, the imports in October reaching the huge figure of 13,900,000,000 paper marks, or two and a half times the imports for May. Exports expanded more moderately, from 4,588,000,000 paper marks in May to 9,700,000,000 paper marks in October. When reduced to a gold basis, the exports show an actual decline, from 310,000,000 gold marks in May to 276,000,000 gold marks in October. The monthly trade balance, which in May showed an excess of imports amounting to 928,000,000 paper marks, mounted rapidly in each successive month, until in October the excess of imports amounted to 4,200,000,000 paper marks; in gold marks the change was from an excess of imports of 63,000,000 marks in May to an excess of 120,000,000 marks in October. In other words, exports were discouraged instead of stimulated by the depreciating exchange, and imports, instead of declining, were markedly increased.

II

This paradox is the outcome of a number of factors. Germany's exports are mainly manufactured products. In 1913, 61 per cent of the whole were fully manufactured goods;¹ and as has been pointed out by Stinnes,

1. Of the classes of exports constituting 5 per cent or more of total exports, only coal (7.5 per cent) was not a manufactured product. Cereal exports were only 4 per cent, and sugar less than 3 per cent. Total raw materials were but 16 per cent. Of those exceeding 5 per cent, cotton goods (5.6 per cent) and woolen goods (5.9 per cent) were mainly dependent on imported raw material. Only iron goods (13.3 per cent) and machinery (7.5 per cent) could find the greater part of their materials at home; and with the loss of Alsace-Lorraine and Silesian supplies, Germany would now need, in order to maintain its industry on the same basis as in 1913, to import about 35,000,000 tons of ore yearly compared with 14,000,000 tons before the war.

Rathenau and others the effect of the reparation payments must be to divert export as much as possible to the more valuable finished products. In 1921, 80 per cent of the exports were fully manufactured goods. Under these circumstances, no stimulus afforded by depreciating exchange rates, however powerful, could bring about a substantial increase of German exports for more than a brief period until the raw materials for their manufacture had been provided. It is not surprising, therefore, that in 1919 (the earlier boom period referred to), when trade was fairly free from government restriction, entire factories were dismantled and the machinery sold abroad because the factory could not be operated for lack of raw materials, whereas the machinery brought attractive prices in marks.²

The reverse aspect of the same condition is that imports have been dominated by the need of raw materials for manufacture and of food products to sustain the industrial population, which has been so great as to offset the depressive effect of the depreciating mark. With reserve stocks exhausted and fixed plant and equipment deteriorated by the war, imports of this character are the necessary first step toward a return to a normal economic life; this would be the case, indeed, quite apart from the requirements of the export trade and the effects of the reparations program. Also, the loss of farming territory to Poland adds a permanent new element of food imports, to be offset eventually by new manufactured exports; and losses of iron territory to France would make necessary, to maintain the iron and steel industry on the pre-war basis, iron-ore imports of nearly treble the pre-war figure. In 1921 raw

2. J. Anton de Haas, "The Present Outlook for United States Trade with Germany," *Annals of the American Academy*, March, 1921, p. 82.

materials and food products were 88 per cent of total imports.

German imports last year were undoubtedly increased also by the abolition of state regulation of food prices. The law of July 21, 1921 restored the free sale and free pricing of breadstuffs, and at the same time abolished the system of centralizing in semi-official hands the import of breadstuffs and fodder,³ so that dealers were permitted to import at their own risk. A computation by the Harvard Committee on Economic Research⁴ has recently thrown much light upon the expansion of our own agricultural exports last year, in marked contrast with the general decline in other branches of our export trade. In food importing countries, food prices rose relatively to general prices in 1921, owing chiefly to the removal of government price control, and in food exporting countries food prices fell relatively to general prices in accordance with the familiar fact that in a period of liquidation the prices of agricultural products usually fall first and furthest.

The relation of our exports to German imports last year was indeed very striking. In 1913, when United States exports to Germany were 16 per cent of the entire German imports, a larger proportion than was supplied by any other country,⁵ they amounted to \$351,930,000, against imports of \$184,211,000. In 1920 the exports were \$311,437,000, against imports of \$88,836,000; and in 1921, \$372,325,000 (one-fourth of total German imports), against imports of \$80,279,000. Last year Germany took 40 per cent of our copper exports, more than

3. This had been a part of the *Zwangswirtschaft*, whereby industry was placed under the control of the government or of semi-public control associations.

4. Harvard Economic Service, Weekly Letter, February 18, 1922.

5. In 1913 German imports from Russia were 13 per cent of the whole, from Great Britain, 8 per cent, and from Austria-Hungary, 8 per cent; no other country supplied more than 5 per cent.

any other country, one-fourth of our raw cotton, of which she was the second largest importer, and one-eighth of our wheat exports, being exceeded only by Great Britain and Italy. Our exports to Germany of these three products alone amounted to \$213,234,000.⁶ But the most significant change compared with the pre-war exports was in food products. Our total food products sold to Germany last year amounted to \$140,000,000, against \$50,000,000 in 1913, while exports of cotton were \$47,000,000 and \$168,000,000 respectively, and of copper, \$31,000,000 and \$47,000,000. German buying of raw factory material is thus still far under normal, while purchases of food products in this country, including finished manufactures thereof, have been unprecedented. Despite imports of cheap German cutlery, toys, and the like, which have excited so much discussion here, it is evident that up to the present, with exports to Germany the largest in our history and imports therefrom less than one-half of pre-war figures, and with an excess of exports to Germany of \$424,647,000 in 1920 and 1921, we have had an effective answer to the fears of those who seek protection from cheap German goods by a policy of higher tariff duties.

The chief reason for the difference in the behavior of German export trade in the two periods of falling exchange which have been outlined was the trade policy pursued by the German government. The heavy outgo

6. United States Exports to Germany in 1921 and 1913.

	Units of \$1,000,000	
	1921	1913
Total	372	352
Food	140	50
Wheat	62	12
Corn	10	4
Flour	12	0.8
Lard	35	20
Copper	31	47
Illuminating oil	1.2	4.5
Lubricating oil	11.6	3.7
Raw cotton	47	168

of goods in the earlier period forced the passage of the export license law of December 20, 1919. To this was added on May 10, 1920, a comprehensive system of export duties ranging from 2 to 10 per cent. The function of the thirty or more foreign trade control boards (*Aussenhandelsstellen*) set up under the earlier act has been to prevent the denudation of the home market and to adjust German export prices to world market prices so as to prevent underselling. Minimum export prices were set up, and no licenses were to be issued unless the prices at which the goods were sold corresponded closely to the market price in the country of destination. Because of the difficulty of obtaining reliable and timely information the price adjustment could at best be but approximate. There is evidence too that when the exchange has favored foreign selling the minimum price requirements have been evaded, a favorite method being the use of double invoices, one to secure the requisite license and the other to serve as a record for rebating the customer later on. As will appear presently, however, in periods of active home buying enforcement has been less difficult. Tho only partly successful, the fact that the attempt is being made to prevent underselling abroad is significant. Besides protecting the home market from denudation it apparently indicates a desire not to excite the hostility of foreign governments which would lead to discriminatory action against German goods, against which, under the terms of the Treaty, Germany could not retaliate. With the improvement of the mark in exchange during the spring and summer of 1920 and the approximation of home prices to world prices, widespread complaint against the export duties led to their gradual relaxation and to the moderation of export control generally. In April, 1921, part of the iron and steel industry was voluntarily decontrolled by the

state-created Iron Industry Union, and by the end of May the relaxation of control had extended to many of the important lines of export.⁷

This was the situation when the mark began its downward course last May. From May to August the decline was moderate (from 1.5 cents to 1.2 cents) and from then to mid-November headlong, reaching .37 cents, a drop from August of 70 per cent. Export control and export duties were reimposed, and their effectiveness was greatly enhanced by the influence of the depreciating mark upon the home market. As the mark depreciated exports diminished because a heavy wave of home buying was stimulated through the fear that the rising prices would rise still higher. In the autumn months Germans were literally frightened into heavy domestic buying by the prospect of never-ceasing price increases. Complaints against exporting were frequent. Upon the consumers' attacking the Electrical Foreign Trade Board for allowing excessive export, the Board published figures to show that there was no excessive export. The home consumer had bought everything up.⁸ And the same was true in most other important branches.

7. Including most textiles, leather goods, wire, small machines, tools, copper, railway cars, etc. Toys and clocks were exempted from license when the act was passed on December 20, 1919.

Besides indicating the effect of the improvement in mark exchange, the relaxation of export restrictions in the spring of 1921 was undoubtedly due in part to a desire to divert exports to neutral countries, not with a view to reparations, but as a retaliatory move against the Allied measures to force the payments required under the Versailles Treaty by May 1, 1921. The German government was particularly hostile to the Allied plan for expropriation of up to 50 per cent of monies due to German exporters for goods sold to Entente countries, and to the "sanctions" policy of the Inter-Allied Rhineland Commission, whereby the control of trade between occupied and unoccupied Germany and the collection of customs were reserved to the Commission. For a detailed account of the system of export control established by the act of December, 1919, see W. Pahl, *Die Aussenhandelskontrolle*, Berlin, 1920. For detailed comment on its operation and on the export duties good sources in English are the *London Economist*, *Economic Review*, *Board of Trade Journal*, *New York Journal of Commerce*.

8. *New York Journal of Commerce*, Berlin correspondence, December 21, 1921, March 21, 1922.

Owing, therefore, to the need of food and raw materials, the extraordinary effect of mark depreciation on home buying, and the entirely justifiable trade policy which Germany has pursued in consequence of the continually threatening possibility of denudation of a home market stripped bare by a long and severe war, the export trade has not responded to the stimulus of the depreciating exchange value of the mark. On the contrary it seems not improbable that German export trade would respond more sympathetically to a moderate rise in the value of the mark, contradictory as that sounds. By reference to the accompanying table again, it will be seen that the only months since the Armistice in which the German foreign trade has shown an excess of exports have been April and May, 1920, and November and December, 1921, the latter movement continuing into the present year.⁹ In both of these periods the mark was rising after a period of violent descent. In May, 1920, the mark reached 2.34 cents, compared with 1.08 cents the preceding February. In December, 1921, the mark rose to $.61\frac{1}{4}$ cents from the low point of $.37\frac{1}{4}$ cents in November and experienced no further pronounced change until March. The domestic buying fever came to an end early in December when the mark began to improve strongly, and considerable stocks of goods manufactured during the boom period had then no other market than the foreign one. After the steadily increasing excess of exports from November through February it would be interesting to know what the trade figures will show for March, when the mark again fell to a new low level.

Despite the improvement in recent months, however, it is not likely that there will be an expansion of exports

9. In January, 1922, exports exceeded imports by about 36,000,000 gold marks and in February by about 48,000,000 gold marks.

sufficient to make possible substantial reparation payments until Germany's pre-war markets in eastern Europe have again been opened up.¹ Before the war Russia, Austria, and the Balkans took about one-fourth of the German exports; the European neutrals, Holland, Switzerland, Spain, and Scandinavia took about one-fifth; and France, Italy, Great Britain, and Belgium about three-tenths. The United States and all other non-European countries combined received about one-fourth of total German exports. In 1920, only 15 per cent of German exports went to England, France, Belgium, and Italy (exclusive of reparation payments in kind); Holland, Switzerland, Spain, and Scandinavia took 49 per cent; but Germany's attempt to reopen trade with Russia, Austria, and the Balkans was a distinct failure. More recently, however, we have had encouraging reports concerning Russo-German trade possibilities. It was recently reported by our commercial attaché that arrangements had been made by a group of German manufacturers and bankers to furnish to the Russian Soviet government a credit of 100,000,000 marks to finance German exports to Russia. This figure, however, is merely nominal, since the German bankers state that the initial credit will not exceed 5,000,000 marks. The granting of credit to Russia seems to represent the expectation of a return to a more normal condition in that country, and the recognition that the Russian market is vital to Germany's economic future. Russia has raw materials essential to German industry, and Germany has machinery and other products needed in Russia. The *Pravda* of Moscow recently announced, concerning the proposed order for locomotives and ma-

1. Professor Taussig's prediction that German trade recovery, on a scale sufficient to pay reparations, would depend on the Russian market is even more convincing now than when made in 1919; see "Germany's Reparation Payments," *American Economic Review*, Proceedings, March, 1920.

chine tools, worth 4,000,000,000 paper marks, that Russia would pay the German shippers one-seventh in gold, would receive a credit for three-sevenths until July, 1924, and would pay the remainder in mining and forestry concessions in the provinces of Bietka and Vologda.² As early as last November the Russian commissary Zinovieff stated that certain German firms were ready to supply goods to Russia on payment of only one-tenth in cash, the reason assigned being that they were bound to regain the Russian market at any cost. Reports of this character are extremely suggestive. If the economic conference at Genoa could accomplish nothing more than the reopening of Russia and eastern Europe to trade with Germany and other countries, that accomplishment alone would justify the calling of the conference.

Until the Russian trade develops, however, there seems little likelihood of a German export balance sufficient to pay reparations of substantial amount. How, then, have cash payments been made at all, and how, in addition, has Germany paid for her large excess of imports since the Armistice? Partly she has paid by selling marks to foreign investors and speculators. In other words, she has paid for some of her food and raw materials with issues of paper marks a year or more ago which are now worth nowhere near what they were then, and these creditors draw no interest and cannot demand payment in gold or in kind. Partly she has paid by balances created in other countries through transfer of

2. New York Times, January 16, February 3, 6, 15, 26, 1922. The Soviet's report for 1921 shows that one-third of the imports via Petrograd were German. Of 1,551,000 Russian pounds of metal wares delivered in all Russia during November, 1,354,000 came from Germany. The Soviet commercial agency at Berlin reports that in 1921, Russia gave Germany 1250 orders for goods, aggregating 800,000,000 marks, of which 140,000,000 marks represented chemicals. Two foreign trade companies have been organized in Russia this year, the Soviet Commissariat for foreign trade owning 51 per cent of the stock and private individuals in Russia and elsewhere, chiefly in Germany, owning the other 49 per cent. The Daily Metal Trade, March 1, 1922.

German capital. According to the *Tagliche Rundschau*, between forty and fifty billion marks have gone to Switzerland alone.³ At recent rates of exchange this would be something under a billion gold marks. The amount that has flowed into Holland has been estimated as high as \$200,000,000.⁴ The law against "capital flight," which would have expired on March 31, 1922, has been prolonged until March 31, 1923, tho the amount that may be taken abroad by travelers is raised from 3000 marks to 20,000 marks. Negotiations are under way with several states for mutual help against tax evaders, and an agreement has been concluded with Czecho-Slovakia, but apparently most of the neutral states have been reluctant to abandon their tradition of secrecy for banking accounts.⁵ In part, too, the imports and the reparation charges have been paid for by transfers to foreigners of German business concerns, factories, and real estate. Foreign investments in Germany since the Armistice have been estimated as high as fifty billion marks, or something under \$250,000,000 at recent exchange rates. With the external value of the mark depreciating more rapidly than the internal value, investments in Germany by outsiders have been obviously profitable. Foreign holders of German bank notes, also, are reported to have employed them for a similar purpose.⁶ It should be borne

3. New York Journal of Commerce, February 1, 1922.

4. New York Times, December 24, 1921.

5. London Economist, March 4, 1922.

6. See Daily News Record, March 9, 1922, Economic Review, January 6, 1922. The Svensk Handelstidning, which sent a special representative to study Germany conditions last December, gives the following estimate of the German balance of payments: "Germany's accumulated adverse trade balance for the war years amounts to (gold) mk. 10 milliards. In 1919 her trade deficit was (paper) mk. 30.3 milliards, and in 1920, about 52 milliards. Adding $12\frac{1}{2}$ milliards for export of foreign money and securities, and about 30 milliards for freightage on foreign shipping, the total of these deficits may be put at 130-140 milliards. How are they balanced? Some 30 milliards in German notes are held abroad, including 9 milliards by the French and Belgian governments (from

in mind, however, that the same difference between the external and the internal value of the mark which makes profitable the inward movement of capital would make unprofitable the transfer in the other direction, except to the lower exchange countries of eastern Europe, and except, too, when the tax to be escaped exceeds the loss on the exchange; so that one wonders by what means capital has been smuggled out of Germany on so vast a scale as reported. That the smuggling has occurred, the multiplicity of reports, and the government measures taken, leave little room for doubting.⁷

Germany appears also to have obtained her imports in part by barter, or methods approaching barter. A good example is the exchange of raw materials for their equivalent in finished products through the Swiss Barter Institute, and by private organizations like the Central European Trading Company of London, which deals with the firm of Schubach, Thiemer & Co. of Hamburg.⁸ More important is the growth of the *Veredlungsverkehr*,

occupied districts); 30 milliards represent foreign bank credits, and 15-20 milliards other credits. The remaining 50 milliards must have been invested in the purchase of German real wealth, property, shares, industries. These purchases were extremely profitable, as the price of city property has only tripled, and that of country property sextupled since normal times. It is, then, indisputable that the loss in the mark's value has been met by the pauperisation of the German people." *Economic Review*, January 6, 1922.

7. A very interesting explanation of one method of doing it is given in the Berlin correspondence of the *Daily News Record*, February 7, 1922:

"For several months, more than a few German firms have been conducting their overseas trade through dummy corporations in Rotterdam or Zurich. These companies, with nominal capitalization, placed orders for raw materials and figured as the direct selling agents of the goods fabricated in Germany. The most popular tax dodging scheme was for the small foreign corporation, with a credit in the country of its origin, to get the raw material and to ship it to the German mill under a supposed contract refining agreement. The mill here manufactured the goods and received the labor cost, plus a minimum of legal profit, in compensation, and the real but hidden profits derived from the sale of the merchandise reposed safely in the account of the ostensible selling corporations across the frontier. These are the profits the German government is now attempting to locate for taxation purposes."

8. J. Anton de Haas, "The Present Outlook for United States Trade with Germany," the *Annals of the American Academy*, March, 1921, p. 86.

a system of international coöperation especially encouraged by the German government, whereby the German manufacturer is given raw material on the understanding that he will deliver the finished product to the foreign merchant, the latter to retain ownership throughout the process.⁹ Foreign firms, too, have been given a direct interest in German concerns, or companies have been formed in which foreign and German concerns have participated. This has been the case in the oil and margarine industries with the Dutch, in the rubber industry with the British, in ores with the French, and in electrical and textile industries and in shipping with the Americans. By this means raw materials have been secured and a field ensured for the sale of the finished product. In harmony with these changes has been the internal organization of industry, particularly the intensified growth of syndicates, which have reached new proportions in iron and steel, shipping, chemicals, automobiles, the oil and fat industries, brewing, electrical goods, and other lines.¹

III

The German experiences with foreign trade which have been reviewed furnish some interesting light upon the theory of foreign exchange under inconvertible paper. It seems evident, for instance, that too violent a descent of the rate may check rather than encourage export, not only by precipitating a buying panic at

9. To protect the foreign firm a number of trust organizations have been created which guarantee that the raw material provided will be used as agreed in the contract, and that the property rights of the foreign firm will be protected; *ibid.*

Adoption of the method of the *Veredlungsverkehr* has been suggested, in the form of a modification of the Wiesbaden Agreement, as a means of facilitating reparation payments in kind. This is the so-called plan for "free negotiations."

1. *Statist*, February 19, 1921.

home such as occurred in Germany last fall, but by throwing exporters, as well as importers, into confusion. With the mark falling so fast last October and November exporters were afraid to quote prices. It is evident, too, that the stimulus of the declining rate is operative only when exports are invoiced in the foreign currency, for the decline in the *internal* value of the mark would render it hazardous for German exporters to enter into time contracts for the receipt of payment for exports priced in German marks. Eighteen foreign trade boards, including those for chemicals, pottery, wood, cement, iron and steel, ships, paper, and leather, issued regulations requiring exporters to high-exchange countries to invoice to the customer in the foreign currency.² German exporters refused to sell to Italy except in lire, all unfilled orders to be canceled if those terms were refused.

That, with these limitations, the stimulus was present, tho obstructed in the later period reviewed by trade restrictions and other influences, is shown by the course of prices. An index of export prices is not available, but prices of individual export groups bear plain evidence. The rise of textile prices, a principal branch of export, was extremely rapid last year during the period of falling exchange. With a base of 100 in 1913, the index for this group was 1773 in May, 1921, 4176 in October and 6518 in November. This was nearly double the November index for all commodities (3416).³ Export and internal prices for earthen and chinaware, chemicals, worsted yarn, pocket knives, and dolls, collected from invoices, showed an increase of the export price over the internal price of 20 to 216 per cent for the various classes

2. Manchester Guardian, November 5, 1921.

3. This is the "Federal Wholesale Index," of which the textile price index quoted is a part.

of goods.⁴ J. M. Keynes indicated last November the discrepancy between the internal and the external value of the mark very ingeniously by pointing out that at the then existing exchange of 1200 marks to the pound sterling "the value of the entire note circulation would be below £80,000,000, which is less than one-fifth of the British note issue, altho Germany uses notes much more and checks much less than we do. There is the further paradoxical result that, since the gold reserve of the Reichsbank is worth nearly £60,000,000, the total circulation of notes valued at the present rate of exchange (and leaving out of account the unfunded debt) is covered by gold to the extent of 75 per cent, a

4.

GERMAN INTERNAL AND EXPORT PRICES

Commodity	Amount of invoice at German internal price	Amount of invoice at export price	Difference	Percentage increase over internal price
Decorated chinaware.....	5,141.67	6,246.50	1,104.83	21
“	1,016.09	2,225.53	1,209.44	119
“	954.58	1,414.16	459.58	48
“	448.40	612.50	164.10	37
“	263.27	532.50	269.23	102
Porcelain.....	37.57	84.20	46.63	124
“	802.03	1,816.32	1,014.29	126
Earthenware.....	103.77	328.00	224.23	216
“	1,141.41	3,003.37	1,861.96	163
Locks.....	967.50	1,212.70	245.20	25
Chemicals and laboratory supplies.....	79,563.00	106,364.00	26,801.00	34
Sundries (aluminum ware, pocket knives, dolls, etc.).....	2,784.00	4,617.00	1,833.00	66
Worsted yarn.....	19,413.30	53,282.22	33,868.92	174
“	12,870.11	16,666.32	3,796.21	30
“	14,888.94	18,328.77	3,439.83	20

Both internal and export prices were given on the invoices, together with the rates of exchange to be applied to the quotations. Therefore the figures in the table represent actual transactions between specific firms on a particular date, chiefly in April, 1921. Many of the export prices run over 100 per cent above the internal quotations, but there is little consistency among them. One shipment of decorated earthenware, for example, may run 20 per cent above the domestic price and another may be over 200 per cent in excess. The whole series of quotations seem to indicate that the German manufacturers were charging American purchasers what the traffic would bear. This conclusion implies no condemnation of German methods, but the table shows that Germany has an advantage over foreign competitors in the chinaware industry because of depreciated exchange alone.

From "Depreciated Exchange and International Trade," U. S. Tariff Commission, 1922, p. 53.

figure rivalled only by the Federal Reserve Banks of the United States.”⁵

The German price situation thus bears out the view that in a period of depreciating exchange export and import prices rise first and in close sympathy with the exchange, whereas the rise in internal prices follows more slowly, the gap between the two providing a stimulus to exports and a burden upon imports. It indicates unmistakably also that the price changes *follow* the changes in the exchange rate. It is equally clear that in this instance the increase in note issue has *followed* the decline in exchange and the consequent rise of prices. As the *Economist* has pointed out, one might even argue humorously that increases in note issue have been good for the exchange, since in 1921 the rate of increase in note issue was only about half that in 1920, but in the whole year 1920 the mark fell only from 50 to 73 for the dollar, whereas in 1921 it fell from 73 to 310.⁶ The greatest rate of increase in note issue yet recorded was in the first half of 1920, when the circulation rose from 49,807,000,000 marks to 67,608,000,000; yet in those six months the mark exchange rose from 50 to 38 for the dollar, and between the end of January and the end of May when inflation was most pronounced of all the mark recovered from 104 to 35. Likewise in 1921, during the period of falling exchange, note issue rose but five billion marks from the end of May to the end of July, three billion marks in August, six billions in September, five billions in October and nine billions in November, the months of sharpest exchange depreciation, but increased thirteen billions in December when the exchange rate improved almost 100 per cent.

5. Manchester Guardian, November 9, 1921.

6. London Economist, November 19, 1921; see too a very interesting and suggestive article by Robert Crozier Long, Fortnightly Review, December, 1921.

So far as the German case is concerned, it is evident that to demand restriction of inconvertible paper as the fundamental cure for depreciating exchange is to beg the question; the Reichsbank has not inflated for its own amusement. The same may be said of the view that the fundamental cure must be to "balance the budget"; that budgetary deficits necessitate further note issue to cover the deficit, and that the increased issue causes further increase of prices and hence depreciation of exchange. The first part of the statement is true so far as it goes, but it does not start far enough back. What causes the budgetary deficit? It seems unmistakable from Germany's experiences last year that the sequence of events was as follows: the reparation payments by greatly increasing the pressure of demand for foreign bills wherewith to make remittance, and also by impairing confidence, drove down the value of the mark in exchange. Import and export prices rose in close sympathy with the exchange, and domestic prices followed upward more slowly, external and internal prices tending to equalize gradually whenever the exchange quieted down or improved, and also toward the end of the period of extreme depreciation, by reason of the effect of the domestic buyers' panic in October and November. With prices rising, the state and private demand for credit was increased. To meet customers' demands for bank notes, bankers, holding their liquid assets mainly in treasury bills and only a minimum of the non-interest-bearing Reichsbank notes, would present treasury bills for encashment in bank notes, increasing the Reichsbank's holdings of treasury bills and forcing increased issues of bank notes in payment. At the same time, since the revenue of the government is relatively fixed in the budget, whereas expenditures increase continuously with the rise of prices, the resulting

deficit compels further issue of bank notes and treasury bills. If this analysis is correct, relief for Germany's financial and monetary difficulties must be sought in the reparations question and the foreign trade, rather than in some point farther down the chain of consequences.⁷

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7. It is not intended to deny that in an inconvertible paper situation the multiplication of note issues is *one* major cause of exchange depreciation, the reasons compelling increased issue being usually both internal and external. For criticism of the doctrine of "purchasing power parity" and its applicability to the German case, see John H. Williams, "Foreign Exchange under Depreciated Paper: A Criticism of Cassel's Doctrine of Purchasing Power Parity," *Journal of the American Bankers Association*, January, 1922.