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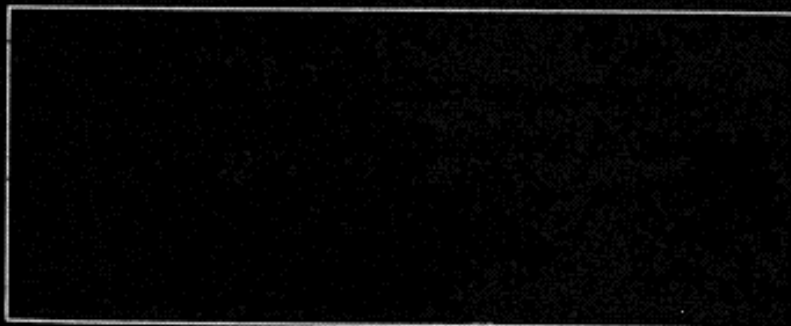
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BANCA NAZIONALE DEL LAVORO
QUARTERLY REVIEW



R O M E

BANCA NAZIONALE DEL LAVORO

HEAD OFFICE: ROME
VIA VITTORIO VENETO, 119

Condensed Statement of Condition, December 31st, 1948

| LIABILITIES | | (Lire) | ASSETS | |
|---|-----------------|--|-----------------|--|
| Capital | 1,150,000,000 | Cash, Balances with Banks & Money at call | 55,928,114,638 | |
| Ordinary Reserve Fund | 605,000,000 | Investments | | |
| | 1,755,000,000 | Govt. & semi-Govt. Securities & Treasury Bills | 19,792,999,546 | |
| Deposits & Current Accounts | 154,332,233,538 | Other Securities | 649,774,225 | |
| Cheques in circulation (<i>assegni circolari</i>) | 10,366,902,655 | Contango, Advances on Securities & Loans | 75,908,028,371 | |
| Bills for collection | 7,691,335,923 | Bills receivable & Re-discounts | 40,509,470,070 | |
| Guarantees & Acceptances for A/C of Customers | 9,911,657,595 | Sundry Accounts | 997,115,424 | |
| Sundry Accounts | 15,158,070,374 | Premises | 198,000,000 | |
| Staff individual Retirement Accounts | 3,317,864,099 | Furnitures & Fixtures | 1 | |
| Unearned Discount & other unearned Income | 1,116,396,001 | Customers' Liability for Guarantees & Acceptances | 9,911,657,595 | |
| Profit | 245,699,685 | | | |
| | 203,895,159,870 | Securities deposited by Third Parties | 32,978,168,808 | |
| Depositors of Securities | 32,978,168,808 | Special guaranteed Accounts | 11,651,851 | |
| Accounts guaranteeing special Accounts | 11,651,851 | Staff Assistance & Retirement Fund-Securities deposited by the Bank as guarantee | 3,313,352,412 | |
| Bank's Securities guaranteeing staff Assistance & Retirement Fund | 3,313,352,412 | | | |
| | 240,198,332,941 | | 240,198,332,941 | |

AUTONOMOUS SECTIONS FOR SPECIAL CREDITS

SECTION FOR CREDIT TO MEDIUM AND MINOR INDUSTRIES

Capital and Government Guarantee Fund L. 2,286,044,407

SECTION FOR HOTEL AND TOURIST CREDIT

Aggregate Capital and Reserves L. 205,012,454

SECTION FOR CO-OPERATIVE CREDIT

Capital L. 500,000,000 - Government Guarantee L. 2,000,000,000

SECTION FOR MORTGAGE CREDIT

Aggregate Capital and Reserves L. 100,607,317

SECTION FOR CINEMA CREDIT

Aggregate Capital and Reserves L. 428,980,351

SUMMARY.

In his article "Bilateral and multilateral Trade" Prof. Corrado Gini shows that in the efforts to reestablish normal international relations on the basis of multilateral trade, a confusion has often been made between those which are necessary effects or conditions and those which are sufficient conditions, and that the disadvantages of bilateral trade have also been exaggerated. The inconvertibility of national currencies was not the cause but the effect of the system of bilateral trade, and the revival of the system of multilateral trade would not suffice to reestablish convertibility. The effects of agreements between groups of States for the purpose of assuring the periodical clearing of active and passive balances are also very limited. The most objectionable feature of bilateral treaties is that they deviate commercial currents from their most economically expedient directions, but they do not necessarily alter substantially the final distribution of the goods. Nor is it true that the system of bilateral trade necessarily determines the divergence, noted in some countries, between direct and indirect exchanges, which may be due rather to the fact that the exchanges are fixed artificially at a level other than the equilibrium rate. Present difficulties depend less on the slowness of exchange rates adjustments and on the deviations of traffic determined by the system of bilateral trade than on the fact that a large part of Europe and Asia is not able to produce as much as it consumes, and that the return to normalcy is hindered by the difficulties placed in the way of the movement of the population. On the other hand, if exchange rates are to be kept stable, it is necessary to assure the stability of the currents of trade also, and this will be possible if the super-national organs, desired by many, are set up.

...

In the article "The Italian Long-Term Program submitted to the O.E.E.C." Professor Roberto Tremelloni, Minister in the Italian Cabinet and now head of the Italian Delegation to the O.E.E.C., sums up and comments the Plan, showing its specific targets, the premises on which it is based, and the lines to be followed in carrying it out.

The A. calls attention to the fact that the structural features of Italian economy (low grade of capitalisation, scarcity of natural resources, large scale unemployment due to causes other than cyclical) create for Italy a more difficult situation than that prevailing in the other participating countries. He illustrates the main lines of the economic policies the Government purposes following in the next few years, indicating the targets the plan has in view in their fundamental characteristics and in the several branches of economic activity without disguising the difficulty of coordinating them with the plans of the other O.E.E.C. countries.

The last part of the article stresses once more the problem of unemployment, the central one for Italian economy, on whose solution, in the last resort, will depend the success of the whole program and the possibility of securing for our economic system a stable and lasting equilibrium. This problem, however, can only be solved if the collaboration of the United States and of the other participating countries, will make possible new and daring enterprises (the execution of vast schemes for the reconstruction of depressed areas, the development of overseas territories, etc.), which will allow of the productive utilisation of Italy's man-power potential.

...

Southern Italy is not only a depressed area but also a very "backward" one, which has remained behindhand on the path of economic and civic development; and the size of

the territory and pressure of the population makes the problem one of not merely national importance.

In his article "Southern Italy" Prof. Alessandro Molinari tries to identify the causes of this stumblingblock of Italian economy, and to indicate possible solutions. He believes that the causes are related to the deficiencies of the economic system of private enterprise and to the absence of a policy for restoring the economic balance, to the growing disparity between resources and population, to the lack of "cumulative" environmental factors; all of which are conditions that tend to perpetuate and aggravate the poverty and inferiority of the South.

Around these notions the A. arranges his discussion of possible "remedies". He calls attention to the need of systematic action on the part of the State; he doubts the possibility of emigration on an adequate scale — which moreover would not cure the original causes of the depression — and has little confidence in the proposed solutions based on agricultural developments, but he brings forward again and develops the idea of the "industrialisation" of the South. Such a solution would be possible, but, he admits, difficult, as it would imply not only an initial stage of large-scale public works to break the vicious circle of South Italian economy, but would also require (1) the elimination of dangerous "bottle-necks", such as the deficiency of capital and financing; (2) the coordination of industrial development with rehabilitation work in other sectors; and, lastly (3) the "concentration" of the remedial activities in limited zones, so as to make full use of the more favourable special conditions of each one (zones of agricultural, industrial, tourist development) etc.

Renovated legislation; a single organ provided with power to act and full responsibility for the execution of the reforms; complete inventories of the needs of each region accompanied by specific and graduated plans of action, such — in the A.'s opinion — are the preliminary and essential conditions for facing the task to be accomplished.

•••

The development of the Italian financial situation in the first three years of this post-war period is analysed in the article "Italy's State Budget, 1945-48" by G. E. M. After some introductory remarks illustrating the structure of the Italian budget, the A. compares the original estimates presented at the opening of each financial year with the final — though still provisional — results, so as to stress more especially the difficulties arising from the environmental conditions that have had to be faced in the work of financial rehabilitation. The A. then describes the movement of assessed receipts and pledged expenditure, dwelling particularly on the growth of the yield of taxation and on some new items that now appear in the budget, and he studies some of the problems arising from the connections between the current budget (*bilancio di competenza*) and the cash account (*bilancio di cassa*). He then examines the latter from the point of view both of the "budget transactions" and of the Treasury operations, and illustrates the distribution of the charges incurred for covering current payments, classifying all the data on total receipts so as to show the nature of the sources from which they are obtained. The article closes with an examination of the growth of the national debt and of the several items of which it is composed.

The Banca Nazionale del Lavoro assumes no responsibility for opinions or facts stated by authors whose contributions are published in the present Review.

All communications regarding the Review should be addressed to Banca Nazionale del Lavoro, Ufficio Studi, Roma, Via Vittorio Veneto 119.

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Stabilimento Aristide Staderini - Roma - Via Crescenzo, 2.

Bilateral and Multilateral Trade

by

CORRADO GINI

1. — The desire to reestablish normal international trade relations has brought to the fore, among others, the question of reviving the multilateral trade and, as it is characterised by the convertibility of national currencies and open circuit clearings, the conviction has grown up that by reviving both of these a definite step would be taken towards the attainment of the desired goal.

So far the experiments made have not given the results hoped for; indeed, in the plans laid down, the necessary effects or conditions of multilateral trade have been mistaken for their causes.

But, even supposing that the conditions required for the reestablishment of multilateral trade be secured, we ought not, even then, to expect results superior to those they can really give, indulging in the present tendency to exaggerate the evils attendant on the system of bilateral trade relations.

2. — The bilateral trade system is not a product of World War II. It was introduced much earlier, during the great depression that upset world economy from 1929 to 1934.

Under the pre-war economic organisation, the multilateral trade did indeed lead to an economic system, which, in face of serious disturbances, was in unstable equilibrium. That system could work on the supposition that the international payments of each State in its relations with all the other States taken together, would balance; but if one of these States closed its accounts with a serious deficit not only did the multilateral trade fail to restore the balance, but the payments of all the other States were consequently disturbed. Thus, if country A had a debit balance with country B, which it was in the habit of paying with credits secured by its trade with country C, which in its turn covered its own debit with the active ba-

lance of its trade with B, any interruption in the trade between any two countries reacted on the commercial relations of the other. Thus, for instance, an interruption of the trade between A and B deprived B of the credits with which it expected to settle its debt to C, and C in its turn was placed in the impossibility of meeting its liabilities to A. Thus all three countries, A, B, and C, were injured and the trade was upset not only as between A and B, but also as between B and C and between A and B (1). As a matter of fact the network of commercial relations was much more complicated, and therefore the reactions much more numerous than those set forth in the above simplified example of the three countries.

It is true that a disturbance of the trade between two countries if contained within certain limits, did not upset the equilibrium, partly because free foreign exchange rates operated as a mechanism for self-preservation, and partly because the reserves, more or less held by all the countries in normal times, allowed them to meet the conditions arising from slight disturbances of international trade; but a serious disturbance which exceeded the power of resistance of a group of States or even of one State internationally important, upset the whole system of international trade.

This is what happened during the great economic depression which arose in 1929 when a cyclical business depression was aggravated by a crisis due to agricultural over-production, leading to the recall of international credits, and degenerating into a general crisis of export markets (2). All the countries then found

(1) See *Prime linee di Patologia economica*, IVth edition, Giuffrè, Milan, 1945, pp. 157-158. This part will be considerably enlarged in the Vth edition, revised and enlarged, to be published by the U.T.E.T.

(2) For an analysis of the great depression, see the cited *Prime linee di Patologia economica*, pp. 556-576.

themselves in more or less serious difficulties in making payments, and fearing their debtors would fail to make future payments they were reluctant to settle even those liabilities for which they held for the time being the necessary funds.

Under these circumstances, the creditor countries, with a view to protecting their legitimate interests, took the initiative of arranging bilateral clearing agreements, of which the first example was that between Switzerland and Austria in November 1931 and of which subsequently a thick net-work spread over the whole continent of Europe. They were accepted as a lesser evil, as they assured, at least in part, the receipt of the sums due and maintained to some extent trade relations under the very difficult conditions that had arisen (3). Should it be possible today or tomorrow to dismiss the system of bilateral agreements as no longer necessary, it will not be possible to refuse it a certificate of service rendered!

But it is doubtful whether the times are yet ripe for dismissing it, and moreover with a return to the multilateral trade it will be necessary to seek the means for avoiding the drawbacks which led to its collapse.

The mistakes committed and the disappointments suffered point moreover to the path that should be followed.

3. — The fact that the bilateral trade is accompanied by the inconvertibility of national currencies has led to the belief that a relation of cause and effect existed between the former and the latter, and that it would therefore be possible to secure the suppression of the one by eliminating the other. Now, that there was a relation of cause and effect is true, but this does not mean that inconvertible currencies brought about the system of bilateral trade. The fact is that it was the system of bilateral trade that caused currencies to become inconvertible.

Indeed when the system of bilateral trade was introduced, several national currencies were still convertible, and in the case of some

(3) On these bilateral agreements consult the *Fifteenth annual Report, April 1, 1944 - March 31, 1945*, of the "Bank of International Settlements", Basle, Autumn 1945.

they continued to be so for a certain time; but, when the system of bilateral trade was set up the clearings that occurred between pairs of countries made the currency unusable outside the country of issue, and a currency for which there is no market is always practically inconvertible.

Under present conditions, the legal revival of convertibility may be a necessary condition for the revival of a system of multilateral trade, but it is not a sufficient condition. England has experienced the truth of this when in July 1947 she revived the convertibility of the pound sterling and was compelled only a little more than a month later, to withdraw the measure (4). The convertibility of the currency of a country cannot indeed be maintained if its payments (5) with the whole body of other countries do not balance.

Agreements for the periodical clearing of active and passive balances between groups of countries trading under the system of bilateral agreement may help to iron out the drawbacks of this system, but they cannot represent, even within the zone to which they refer, an *ipso facto* return to multilateral trade which implies the revival of trade currents in the most profitable directions, regardless of all bilateral restrictions; and this is a result not immediately attainable. The agreement signed in November 1947 between France, Italy, Holland, Belgium and Luxemburg, the permanent members, and then accepted by almost all the other ERP countries as provisory members, could not therefore, under the most favourable conditions, obtain more than limited results apart from the obstacle arising from the incongruous (6) exchange rates fixed between

(4) See INTERNATIONAL MONETARY FUND, *Annual Report, April 30, 1948*, Washington, 1948, pp. 28-32.

(5) Payments being understood in the largest sense, that is arising not only from current transactions but also from movements of capital.

(6) As concerns exchange rates, it is necessary to distinguish: a) the divergence, that often is observed, between the exchange rate concerning the two countries A and B, on the one hand, and, on the other, the ratio between the purchasing powers of the two moneys on the respective internal markets, and b) the divergence between the exchange rate concerning the two countries A and B, on one hand, and on the other, the ratio of the exchange rate between A and a third country C to the exchange rate between the countries B and C. The two divergences

the currencies of the several countries, which made those results really negligible (7).

The utilisation for clearing purposes of the ERP Funds might eliminate this last mentioned obstacle, but it could not substantially alter the bearing of such agreements.

Again, if a revival of the commercial currents were obtained in the most economically profitable directions within the multilateral clearing zone, it might, if the zone were not very extensive, have little importance when compared to the importance of a revival of multilateral trade with countries outside that zone.

And, lastly, we should not exaggerate the advantages of a general revival of multilateral trade as compared to those offered by the bilateral system.

4. — As a matter of fact, the disadvantage of the bilateral system as compared to that of multilateral trade consists in the fact that it deflects commercial currents from their natural directions in order to secure a balance between pairs of countries, but it does not suppress the international division of labor, and does not necessarily make substantial changes in the final distribution of products. Like results may be obtained though at a higher traffic cost.

If, under the system of multilateral trade, country A closes her account with a debt to country B amounting to x sum, which she offsets with the active balance of her trade with country C, she will be able, under a system of bilateral trade, to divert towards B goods of an x value which she formerly sent to C, which goods may subsequently be sold by B to C. Let us consider the extreme case of a country B, which under a system of multilateral trade

have different causes and bearings and it is convenient to distinguish them with different denominations. Divergence a) is usually called *disequilibrium of exchange rates*, and we will keep for it this denomination, calling instead *incongruence of the exchange rates* the divergence b).

(7) On this matter see Chap. I (*European Payments Agreement, Multilateral Monetary Compensation and the European Plan*) in the *Eighteenth Annual Report, April 1, 1947 - March 31, 1948*, of the BANK OF INTERNATIONAL SETTLEMENTS, Basle, June 14, 1948, and the article by G. CARLI, *I pagamenti internazionali e la posizione dell'Italia*, in "Moneta e Credito", *Review of the Banca Nazionale del Lavoro, Rome, 3rd quarter, 1948*.

buys from A raw materials for x value and then, having processed them into semi-manufactures, sells them for a sum, say, of 2 x, to country C, which produces with them an output of finished commodities of 3 x value of which it keeps a third for its own use, selling a third to A and a third to B. The introduction of the system of bilateral trade need not necessarily interfere with this division of labour, but would only compel country B or country C or country A to take a longer road for placing their products. For all that need be done to balance the bilateral trade will be (a) that B sell directly to C only half of its semi-manufactures, selling the other half to A, who will resell them to C; or else: (b) C will not sell directly to A a third of its finished commodities, but will sell them also to B who will resell them to A; or lastly: (c) A will not sell its raw materials directly to B but will sell them to C who will resell them to B.

If the solution (b) be adopted all trade between A and C will cease, and similarly under solution (c) trade between A and B will cease, a condition which may be imposed by a state of war between the two countries in question.

Should no obstacles stand in the way of transports between the two countries, the advisability of one rather than another of the three solutions will depend on the relative distances between the three countries. If the distance between the three countries be the same, solution (b) will be preferable to (a), and (a) preferable to (c) in as much as, the values being equal, carriage will be less costly for finished products than for semi-manufactures, and for semi-manufactures than for raw materials.

We need hardly add that an infinite number of other intermediate solutions could be found in which the alterations in the direction given to the traffic would not affect only raw materials or only semi-manufactures, or only finished commodities, but some of one and some of others of these categories.

It is true that the heavier cost of carriage entailed by the system of bilateral trade may make inadvisable the exchange of certain goods which could be profitably exchanged under a system of multilateral exchanges thus leading to a reduction of international trade; but this will, as a rule, be the case for goods which a

country can easily do without, or for goods produced in the country itself or which can be replaced by others produced there, but which it had been found expedient to import from abroad.

On this head it might be remarked that the heavier carriage costs required for obtaining, by bilateral agreements, the same results obtained under a system of multilateral trade relations, represent the upper limit of the disadvantage entailed by the bilateral system, whereas when trade between countries has come to a standstill, bilateral trade offer a transition solution to which recourse is had as being the lesser of two evils.

In any case, it would be a grave error to ascribe to the bilateral system the decline of international trade that has accompanied it. That decline was the cause and not the effect of the bilateral system which was adopted to salvage what could be salvaged from the ruin of the system of multilateral trade. It would be a dangerous delusion to believe that a return to the system of multilateral trade would by itself, and independently of the other conditions prevailing in international market, assure a return to the conditions existing when in normal, or less abnormal, times the system of multilateral trade was in force and worked well or tolerably well.

5. — Another charge wrongly brought against the system of bilateral trade would make it responsible for the present incongruences in the exchange rates for the currencies of some countries, as a result of which the cross rates differ from the direct ones. Thus, for instance, until lately, the direct sterling-dollar rate differed from the cross rate current in Italy as reached indirectly on the basis of the ratio of the lira-dollar to the lira-sterling rates.

Such incongruences give rise to a distortion of trade currents; they encourage commodity arbitrage, and they contributed, as we have said, to minimise the results of the agreement for multilateral clearings between some European countries; they make it more difficult to reestablish the convertibility of national currencies.

For this reason the International Monetary

Fund, one of whose objects is to promote the stability of exchange rates, protests against the disorderly cross rates and calls on its member countries to cooperate to suppress this state of affairs by enforcing the rules of the Fund (8).

The reply given to this appeal was that this disorder — that is the discrepancy between direct exchange rates and cross rates — is an unavoidable consequence of the system of bilateral trade, and that therefore the wishes of the Fund and, indeed, the international monetary system, formulated at Bretton Woods, were as a whole incompatible with a system of bilateral trade agreements (9).

Such a conclusion would be one of no small moment! Fortunately on closer examination it is seen to be ill founded. It arises from mistaking a mere possibility for a necessity which does not exist.

Under a system of multilateral trade between m States — so the reasoning runs — the international payments of each State with all the others can only balance under a given system of exchange rates, and under that system only. The values of the commodities each State exchanges with the other $m-1$ States, multiplied by their respective exchange rates, give rise indeed to a system of m equations, of which $m-1$ are independent, and allow of determining univocally the $m-1$ exchange rates of $m-1$ countries in relation to country m th.

But under a system of bilateral trade the balance is secured between each couple of countries with a given rate of exchange, likewise determined univocally by a system of two equations, one of which is independent. Then we shall have $\frac{m(m-1)}{2}$ independent exchange rates, corresponding to the number of couples that can be formed between the m countries, which can be determined univocally by the respective $\frac{m(m-1)}{2}$ equations. But, in order to

(8) See the address on *The Practical Problem of Exchange Rates*, delivered on February 13, 1948 by C. GURR, Chairman of the Executive Board of the International Monetary Fund at Harvard University and published by the said International Monetary Fund, Washington, 1948.

(9) C. BRESCIANI-TURRONI, *The Problem of the Cross Rate of Exchange*, in "Review of Economic Conditions in Italy", Banco di Roma, Vol. II, N.° 3, May, 1948.

avoid the discrepancy between direct and cross exchange rates, the independent rates should be only $m-1$, while it should be possible to calculate indirectly from them the others $\frac{m(m-1)}{2} - (m-1) = \frac{1}{2}(m^2 - 3m + 2)$.

Then — it was concluded — if the foreign exchange market be free, the discrepancy between direct rates and cross rates derives necessarily from the existence of a system of bilateral trade relations.

Now, as a matter of fact, taking the above stated considerations as granted, the conclusion drawn therefrom is unjustified.

Indeed, they only allow us to assert that under a system of bilateral trade relations between m countries $\frac{m(m-1)}{2}$ rates are

formed, but they do not allow any conclusion on their reciprocal independence or incongruence; they enable us to say that the direct rates may diverge from the cross rates (which they could not do under a system of multilateral trade) but not that they necessarily must diverge (10).

(10) It seems to me that the contrary conclusion must have arisen from a misunderstanding of the word "independent," applied to $\frac{m(m-1)}{2}$ equations, and consequently also to the $\frac{m(m-1)}{2}$ distinct exchange rates, which, under a system of bilateral trade are formed between the m countries, as I shall now explain. When under the system of m equations, whose solution allows one to determine the m exchange rates under a system of multilateral trade between m countries, it is said that the $m-1$ equations are independent, the intention is to refer to an independence in an analytical sense, which means that it is not possible to obtain from $m-2$ equations the $(m-1)$ th. In the same sense it may be said that in each of the $\frac{m(m-1)}{2}$ systems, all of which are of two equations, which may be established, under a system of bilateral trade, between the m countries, only one of the two equations is independent. Therefore we have indeed under the said system of bilateral trade, $\frac{m(m-1)}{2}$ independent equations, but not in the sense that each of the said $\frac{m(m-1)}{2}$ equations is independent of the other $\frac{m(m-1)}{2} - 1$, but in the sense that in each of the $\frac{m(m-1)}{2}$ systems, all consisting of two equations, which may be established between the m countries under a system of bilateral trade, there is an independent equation. In other words, it is not, as Bresciani admits, that in a system of bilateral trade

Whether they will diverge or not, whether, in other words, there will or will not be congruence between the $\frac{m(m-1)}{2}$ distinct exchange rates, will depend on other circumstances. To be precise, it will depend on the relations (which are reflected by the exchange rates) existing on the domestic markets of the countries in question between the prices of the goods which are the objects of international exchanges; there is nothing in the system of bilateral trade that makes it impossible for those relations to be such as to lead to a system of congruous exchange rates; and when at first the exchange rates are not so they tend to become congruous.

Let us now illustrate the view above set forth by simplified examples, as is customary.

6. — When, uninfluenced by any form of constriction, trade exchanges take place between two countries, this obviously occurs because each of the two finds these exchanges advantageous. But the advantage may arise from two different circumstances, which may moreover be concurrent. It may arise (a) from the impossibility of producing in each of the two countries all the goods, although prior to the international exchanges like relations existed between their marginal utilities; or else (b) from the different relations which prior to these exchanges existed in the two countries between the marginal utilities of the various goods that they exchange.

Let us consider in the first place (a).

Let us take three countries, A, B, and C, whose inhabitants have like tastes in the matter

there is a system of $\frac{m(m-1)}{2}$ independent equations with $m-1$ independent unknown quantities (which would be an impossible system), but there are $\frac{m(m-1)}{2}$ systems, all possible, each of 2 equations with 2 unknown quantities, one of which is independent. Therefore one can make no a priori assertions about the reciprocal independence or lack of independence of the $\frac{m(m-1)}{2}$ equations that may be set up under a system of bilateral trade between the m countries, nor can one say anything of the reciprocal independence or lack of independence of the consequent $\frac{m(m-1)}{2}$ distinct rates of exchange which, under a system of bilateral trade, correspond to the different couples that may be formed among the m countries.

of oranges, bananas and persimmons, attributing, for like quantities, twice the marginal utility to bananas that they attribute to oranges, and to oranges double the marginal utility attributed to persimmons. But it happens that oranges are grown only in country A, bananas only in country B, and persimmons only in country C, production costs being, in the national currencies, 10 for oranges in A, 200 for bananas in B, and 10 for persimmons in C.

Country A having an excess of oranges, will exchange oranges for bananas with country B in the ratio of 2 to 1, and oranges for persimmons with country C in the ratio of 1 to 2, while country C will exchange persimmons for bananas with country B in the ratio of 4 to 1, so that in country A the price of oranges, bananas and persimmons will be respectively 10, 20 and 5, in country B, 100, 200 and 50, and in country C, 20, 40, and 10. The supposition is that the exchanges between the said countries are limited to those products and that they trade under the system of bilateral agreements.

Should the exchange rates be in equilibrium (that is to say if the exchange rates ruling between two of the countries correspond to the general-level of prices on their respective domestic markets) the exchange rate between A and B will be of 10 (i.e. 10 monetary units of B for one monetary unit of A), of 2 between A and C, of 1/5th between B and C, and will be $10 = 2 : 1/5$, that is to say the direct exchange rate between A and B will coincide with the cross rate arrived at by the ratio of the exchange between A and C to the exchange rate between B and C.

In this simplified example no account is taken of the cost of transport of the goods exchanged between one country and another nor of the custom duties and expense and viceversa of the facilities of export or import which determine the critical points of the equilibrium of the purchasing powers between which one may expect that the exchange rate will correspond to the ratio between the price levels on the domestic markets (11). But it will be readily realised that when, between the marginal uti-

lities of the goods of the countries trading under bilateral agreements, uniform relations exist prior to those exchanges, the direct exchange rates—should they be in equilibrium (understood as above) and with the approximation compatible with the said critical points—will coincide with the cross rates.

Let us now examine the (b) alternative, in which, prior to the exchanges, the ratios between the marginal utilities of the several goods are not equal in the countries considered.

Now, it may happen that, as a consequence of the trade exchanges, the relations between the prices of the goods in question may be found equal in all the countries under consideration. Apart from some inevitable frictions, this would be the result attained—with the approximation compatible with the above said critical points—under a system of plurilateral trade should the exchange rates be in equilibrium. But it may also be assured under a system of bilateral agreements.

The marginal utilities of the three goods—oranges, bananas, and persimmons—in country A, growing oranges, stand, for instance, in the ratios of 1, 2, 4; in country B, growing bananas, in the ratios of 2, 1, 3; in country C, growing persimmons, in the ratios of 4, 3, 1; and let 10 be, in the local monetary unit, the cost of production of oranges in country A, 200 that of bananas in country B, and 10 that of persimmons in country C.

Let us suppose that the ratio of exchange between the goods produced in two countries be equal to the geometric mean of the ratio between the marginal utilities that the two goods have in the two countries. Oranges and bananas between countries A and B will be exchanged in the ratio of 1 to 1 (being $\sqrt{\frac{1}{2} \cdot \frac{2}{1}} = 1$); and bananas and persimmons between countries B and C will likewise be in the ratio of 1 to 1 (being $\sqrt{\frac{1}{3} \cdot \frac{3}{1}} = 1$) and again oranges and persimmons between countries A and C will also be in the ratio of 1 to 1 (being $\sqrt{\frac{1}{4} \cdot \frac{4}{1}} = 1$). The prices of the three goods will therefore be represented by 10 in country A, by 100 in country B, and by 10 in country C. The exchange rate, if it be in

equilibrium (i.e. it corresponds with the ratio of prices on the domestic markets) will be equal to 20 between A and B, to 1 between A and C, and 1/20 between B and C. And the direct and the cross exchange rates will coincide, being $20 = 1 : 1/20$.

A little reflection will show that, should the exchange rates be in equilibrium, the different rates will always be congruous, provided that the ratios between the prices of the commodities exchanged be equal in all the countries.

But it does not always happen that the ratios are equal, and in such cases the results will differ, if only temporarily, under a system of bilateral and a system of multilateral trade.

Let us make a slight variation in the above example, and suppose that the marginal utilities of the oranges, bananas and persimmons prior to the exchanges be as 1, 2, and 4 in country A; as 2, 1 and 3 in country B; and as 2, 3 and 1 in country C. As a consequence of the bilateral trade the prices will be, for oranges, bananas and persimmons: in country A, 10, 10, 7.1; in country B, 200, 200, and 200; in country C, 14, 10 and 10; where

$$1.4 = \sqrt{2} = \sqrt{4 \cdot \frac{1}{2}}$$

represents the ratio in which oranges are exchanged for persimmons between countries A and C. Therefore the price ratios for the three goods will differ in the three countries, and consequently the direct exchange rates will not coincide with the cross rates. The exchange rates indeed will be 20 between A and B; 1/20 between B and C; 1.4 between A and C and we have $20 < 1.4 : \frac{1}{20}$.

It should however be noted that in this case the exchange would not be in a state of equilibrium in the meaning above stated, because the rate of exchange between the two countries would not correspond to the ratio between the general price levels on the respective domestic markets, but only to the ratio between the domestic prices of the commodities entering into the exchanges between the two countries. Were there an equilibrium between the exchange rates in the above meaning, the ex-

change rate between A and B would not be $\frac{200}{10} = 20$, but (supposing that the quantities of the three goods be equal on each of the domestic markets)

$$\frac{200 + 200 + 200}{10 + 10 + 7.1} = \frac{600}{27.1}$$

the exchange rate between B and C not

$$\frac{10}{200} = \frac{1}{20} \text{ but } \frac{10 + 10 + 14}{200 + 200 + 200} = \frac{34}{600}$$

and lastly the exchange rate between A and C not $\frac{14}{10} = 1.4$, but $\frac{10 + 10 + 14}{10 + 10 + 7.1} = \frac{34}{27.1}$ and

the cross rates and direct rates would coincide being $\frac{600}{27.1} = \frac{34}{27.1} : \frac{34}{600}$.

Under such conditions, however, the ratio between the domestic prices of the commodities exchanged between the two countries will tend to conform to the ratio between the general price levels on the domestic markets of the two countries.

It is evident that as the resultant prices for the three commodities which are the immediate effect of the bilateral trade, do not stand in the same ratio in the three countries A, B and C, it will be to their interest to start other exchanges in addition to those we have been considering. Country A will find it profitable to buy bananas from country C and country C to buy oranges of country B, and country B to buy persimmons from country A, thus promoting conditions in which the prices for the three goods will be in the same ratios one to the other in the three countries, and consequently the direct and cross exchange rates will coincide.

But this situation also is not peculiar to bilateral trade, but may arise under any system of trade when the ratio between the domestic prices of the commodities entering into international trade does not correspond to the ratio of the general level of domestic prices (12). But whereas under a system of multilateral

(11) See the cited *Prime linee di Patologia economica*, Chapter VI: *L'equilibrio dei cambi*, especially at pp. 417, 418 and 423-425.

(12) *Prime linee di Patologia economica* cited, pp. 461-462.

trade, the divergence in the ratio between the general domestic price levels and the ratio between the domestic prices of the commodities entering into international trade, affects the correspondence between the exchange rates and the ratio of the general purchasing power of the currency, but does not lead to a discrepancy between direct and cross exchange rates, under a system of bilateral trade, it may, at least at first, lead to such a discrepancy.

Another circumstance to be borne in mind is that the higher cost of transport of commodities under a system of bilateral trade relations as compared to such costs under a system of multilateral trade, widens the margins of the critical points of the equilibrium of the purchasing powers and may therefore enlarge the variation between the exchange rate and the ratio between the domestic prices of the commodities without bringing into play compensating mechanisms.

On reflection, one is led to the conclusion that the bilateral system makes the attainment of equilibria in trade exchanges and international exchange rates more costly—and therefore less accurate—and delay them but do not ultimately prevent them. It is, besides, true that the distinction may be more important in theory than in practice, for if, in practice, the hindrance is such that the equilibrium is not restored, before the advent of other causes of disparity, some disequilibria will occur permanently—though with a tendency to disappear—in spite that in theory it could only be contingent.

This holds good on the hypothesis of a free market of exchange rates as is supposed in the demonstration we have confuted of the inevitable discrepancies between direct exchange rates and cross rates. Should, however, the rates be officially fixed, as is not the case in most of the countries affiliated to the International Monetary Fund, there will not be a tendency for a possible discrepancy between direct and cross rates to be wiped out, but this is a consequence not of the system of bilateral trade relations but of artificially fixed exchange rates.

On the other hand, if fiat exchange rates are fixed, the discrepancy between direct and

cross exchange rates may be eliminated by fixing the official rate not in conformity with the ratio between the domestic prices of the commodities exchanged, but so as to secure coincidence between direct and cross rates. If commercial agreements are stipulated between the two countries fixing not only the nature but also the prices of the commodities exchanged, the effect of the disequilibrium between price and exchange ratios may be corrected by fixing fictitious prices for the goods exported from one or from both the countries (13). Apart from this possibility, the coincidence between direct and cross exchange rates may—as the Chairman of the Executive Board of the International Monetary Fund observes—be maintained under a system of bilateral trade relations, either by accumulating by the creditor country—within the limits allowed by the bilateral agreement—balances of the currency of the debtor country or by settling the adverse balance in gold or U. S. dollars, as does United Kingdom in most of its trade with the Western Hemisphere, or, lastly, by encouraging imports by the creditor country and limiting exports and encouraging exports by the debtor country until they balance at the rate of exchange established by the International Monetary Fund (14). This last direction is the one in which the Fund hopes that co-operative action of its member States be carried out (15).

There is no denying that each of these three solutions presents drawbacks and that therefore the possible discrepancy between direct and cross exchange rates is one of the defects of the exchange rates policy pursued by the International Monetary Fund. But obviously this policy cannot be judged only by this one of its effects, all of which with their several reactions should be taken into consideration.

7. — The gravity of the present situation does not arise so much from the slow adjustment of exchange rates and from the distortion of trade currents from the most economical routes, as from the fact that the exchange rates

(13) This is often done in practice. See on this point the speech above cited of C. Gurr, p. 14.

(14) See the cited speech by Gurr, p. 13.

(15) *Ibidem*, p. 12.

are not tending, even if slowly, towards an equilibrium, neither is there the possibility of attaining a rational distribution of commodities by means of trade exchanges, because the nations in need of foreign products have not the wherewithall for purchasing them.

Indeed, the present situation can only continue thanks to the gratuitous supplies of commodities sent by America to Europe and Asia. Nor do I foresee that the situation will be as rapidly rehabilitated as the devisers of the Marshall Plan are planning. Indeed, I am of the opinion that, if the Anglo-Saxon countries, while advocating the free movement of commodities and capital continue to require that the European and Asiatic populations, instead of moving freely to those countries where their labour forces would be more profitable, remain compulsorily compressed in territories where, even when reconstruction is completed, they will find themselves in conditions of inferiority as regards natural resources and technological organisation to those prevailing in the New World, the economic disparity between the two hemispheres will not disappear, should it not be intensified. After giving such great and generous assistance, I foresee that America—unless she be willing to see the whole world turn against her—will not be able to stop subsidising, directly or indirectly, the unemployed labour forces of the other Continents (16).

On the other hand, even if the free international circulation of labour, no less than that of commodities and capital, were reestablished under a system of multilateral trade, we must not forget the danger to which international organisation is exposed under that system, a danger of which mankind has had such a cruel experience. And the danger will be still greater if the gold exchange standard or at least the system of free exchange rates is not revived. Those systems provide—the former more efficiently than the latter—a self regulating mechanism of the international trade relations which, in face of limited disturbances, succeed in maintaining the equilibrium.

(16) See on this subject the article *Savings, Economic Progress, and Unemployment now under press* in "Economia Internazionale", published by the Institute of International Economy, of Genoa.

But if the stability of exchange rates aimed at by the International Monetary Fund is to be maintained, it will be necessary for it, or some other supernational organ, to undertake the task of assuring also the stability of trade relations. In the case of raw materials, migrations, international credits, attention has often been called to the risks run by the pre-war economic organisation, based on an international economic cooperation whose continuity was by no means assured. That organisation led to an ever more marked division of labour entailing ever greater and more active and more vital international trade relations, and had thus bound the countries of the world together in a life or death union: yet each of the partners in this association was free to upset at will, in pursuit of a real or supposed or even only transitory advantage, this mutual solidarity, thus endangering the whole social body (17). And unfortunately in each of these fields facts have fully proved that these fears were not unjustified.

If, in spite of the many warnings—manifestly well founded—no steps were taken in the past to remedy the situation, this was certainly due to the difficulty of getting beyond the national stage of administrative and political organisation. Now that this step is being taken, however laboriously, we are justified in hoping that efforts will not be limited to treating the disastrous effects of the ruptures of equilibrium but that measures will be taken, by setting up suitable supernational organisations, to prevent them, thus assuring the continuity of international cooperation.

(17) See, for instance, among our writings, the *Enquête de la Société des Nations sur la question des matières premières et des denrées alimentaires*, in "Metron", Vol. II, No. 1-2, January 1922; *Gli sviluppi della crisi mondiale*, in "La Vita Economica Italiana", Rome, 1934, No. 2, pp. 39 et seq.; *Prime linee di Patologia economica*, cited, pp. 576 et seq.; *I problemi della distribuzione mondiale della popolazione e delle materie prime*, in "Rivista di Politica Economica", April, 1936, published also in the *Introduzione to the volume Migrant Asia* by R. MURKJEE, Italian Committee for the study of Population Problems, Rome, 1936, (Spanish edition in "Revista de Economía y Estadística", Mexico, July 1936; English edition with slight variations, in the "Annals of the American Academy of Political and Social Science", Philadelphia, January, 1937); *Die Probleme der internationalen Bevölkerungs- und Rohstoffverteilung*, Kiel Vorträge, No. 49, Fisher, Jena, 1937; *Problemi del dopoguerra*, Rome, 1944; *Ammaestramenti della guerra*, in the weekly "1945", Year I, No. 1, June 16, 1945.