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THE BASIC LAWS
OF
THE CAPITALIST MODE OF PRODUCTION
AND
THE EVOLUTION OF CENTRAL CAPITALIST FORMATIONS

BY

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In the chapters which follow, we propose to show that capitalism must be superseded, to begin with at the periphery although capitalism can only be complete on the world-scale. We also intend to demonstrate that this process is not the inexplicable result of a series of coincidences but the manifestation of a law. In Chapter II, we shall attempt to throw light on the preliminary theoretical factors underlying the essential laws of the capitalist mode of production. It is not simply that marxism has made very little progress since the time of MARX; Das Kapital itself is not widely read and is often reduced to an over-simple piece of dogmatism. Therefore we must first reestablish the meaning of the essential laws of the capitalist mode : the meaning of the law of value and of the mechanisms of accumulation. Through this, we shall demonstrate that accumulation is possible in a closed capitalist formation. By studying the conditions necessary for this possibility to become fact and the forms of self-centered accumulation, we shall have established the concept of central capitalist formation. At the same time, we shall have shown how the contradiction inherent in the capitalist mode gives it its necessarily expansionist feature. Then we shall begin to understand what exactly the world capitalist system is, what the functions of the peripheral formations are, how the effects of the system's method of overcoming this inherent contradiction are transferred from the centre to the periphery. Thus we shall have established the background to the analysis of the periphery in the later chapters.

THE BASIC LAWS OF THE CAPITALIST MODE OF PRODUCTION AND THE EVOLUTION OF CENTRAL CAPITALIST FORMATIONS

The genesis of capitalism provided the first manifestation of the law of uneven development of social formations. We shall now examine its second manifestation : the superseding of capitalism and the genesis of socialism. In fact, the present study is centered on this second manifestation of the law of uneven development.

We shall undoubtedly be accused of "third-worldism", as already happened in the case of our book, "l'Accumulation à l'échelle mondiale". And yet, as we have already said, the constitution of the world system as it is, has not simply "made possible the development of socialist currents at the periphery. Up to now, it has brought about a shift of the principal nucleus of the forces of socialism from the centre towards the periphery. This does not reflect any "theory of the third world" but is simply a plain statement of the fact that all transformations towards socialism have so far started only at the periphery of the system. This fact, like all other facts must and can be explained. One way of evading the question is to deny the socialist nature of the transformations in question either by declaring the revolutions at the periphery to be merely the result of "historical accidents" or simply regarding them as "peasant revolts", as some Trotstyists do. The purpose of denying the changes in the words system at large - in fact, denying the very existence of a world system - is to preserve the sacred character given to MARX's analysis of the capitalist mode of production, to make of it a complete science rather than the starting point of the analysis.

I

Productive forces and production relations in central capitalist formations

In the preceding chapter, we defined the capitalist mode of production and traced back its genesis. Our definition went back to the appropriation, exclusively by one particular class, of the means of production which are themselves the product of social labour, as opposed to the class appropriation of the natural means (land). We recall that this exclusive class appropriation, while it historically involved the individual ownership of the means of production, can also take different forms, in particular that of collective ownership. Capitalism is present the moment the means of production which are the product of social labour, are not under the control of society as a whole but of one section of it which then becomes the bourgeoisie. It is quite obvious that capitalism does not emerge until the level of development of the productive forces is so high that these means of production, themselves produced, are no longer simple enough to be within the reach of the producer himself. The "traditional" farmer and craftsman make their own tools which are very simple. The skilled worker cannot himself "make" his factory, with its complex equipment. From then on, the centre of gravity of society's means of control shifts from control of the natural means (land) to that of the means which are themselves produced (capital equipment).

The capitalist mode therefore has three main characteristics : 1) the co commodity form is extended to the entire social product, as opposed to the case of former modes in which this form was confined to the surplus or a fraction of it; 2) the labour force itself acquires the form of a commodity, this being a prerequisite and meaning that the producer, separated from his means of production, becomes a proletarian; and 3)

the commodity form is acquired by "capital equipment" itself, materially based on a social relation, i.e., the exclusive class appropriation relation which is the basis of capital.

This production mode emerges, as we saw in the preceding chapter, in specific areas (Europe, North America, Japan, South Africa, Australia and New Zealand, Israel) from the internal evolution of certain precapitalist formations (or starting from scratch, i.e., transplanted as such from the beginning). The historical framework of this genesis is clearly defined : it marks out the capitalist nations which later became the completed central capitalist formations.

The fact that the entire product is turned into commodities means that the field of application of the law of value is extended to economic life as a whole. Whereas in precapitalist societies economic life was essentially of a non-commodity form, with the capitalist mode the economy is synonymous with commodity forms. This identity is reflected in conventional economic theory. The latter (in its pre-Marxist - Ricardian - or post-Marxist - marginalist-form) uses "supply and demand" as the point of departure in its analysis, hence presupposing the existence of commodity and market. It presents itself as a universal, a historical economic science when all it does is simply to extend to all civilizations the nature of the capitalist mode which it observes. It thereby bars itself from understanding the genesis of that system, hence from actually grasping the meaning of the laws of development. Consequently it loses its scientific value to become an ideology, i.e., a justification in the name of an absolute, a historical human "rationality". Its very insistence on the "rationality" of economic choices based on the market, the supreme goal it has set itself of determining the conditions for "optimal allocation of resources" point to its ideological nature. As P.P. REY has clearly shown, the use and misuse of the time discount rate" constitutes the basis of this "demonstration" of the "rationality of the market".

This demonstration is a complete tantology since the rate in question, possesses the quality : 1) of being represented by any figure one likes since it is not possible to pass from an individual time preference to a collective junction of it and 2) of being so sensitive that a small change in it may ensure or withdraw at will the profitability (associated with rationality).of a particular choice.

The extension of value to the entire economic life alters the form in which the law of value is expressed. Within precapitalist formations and in the sectors conceived with commodity exchange, the law of value is expressed in its simple form : exchange ratios (relative prices) are homothetic vary in proportion to the average amount of social labour contained in the commodities exchanged. In fact, the means of production which are themselves the product of social labour are of little importance and are owned by the producers themselves. The simple commodity production is the major form of commodity production and consequently, prices reflect actual values. ENGLES, in a preface to Book III of Capital, stresses the historical precedence of the simple form of value over its complex form.

In the capitalist world, "capital equipment" (means of production which are themselves the product of social labour) are not only large in quantity but they are owned exclusively by one group of people and hence their role is a dominant one. Consequently, the surplus labour provided by the producers is redistributed among the members of the dominant class in direct proportion with their importance measured in terms of their capital : the aliquot part of the social capital they control. Hence the law of value operates but to the second degree in other words, in a complex form, since prices are derived from values in a specific way which allows this redistribution of the surplus social labour.

This shows why the problem of the transformation of value into prices is important. Those "critics" of MARX who contrast Book I of capital with Books II and III on this point thereby show that they have hardly understood the very nature of the work, the aim of MARX which was to demystify

by replacing political economy in its paper historical perspective. To make of Capital an "economic theory" on a par with the conventional theories (that of Ricardo or the marginalists) is to understand nothing of its sub-title which, we recall, is a Critique of Political Economy". To say that MARX, after the publication of Book I, became "aware of his mistake" and therefore held back the publication of Books II and III, as naively claimed by those whom MARX ironically referred to as "academic professors", is to be ignorant of the fact that the transformation of value was already explained in its entirety long before the publication of Book I.

We can, if we wish, describe the capitalist system of relative prices without reference to value. This was done by Piero SRAFFA with incomparable mastery. This description was given in the form of a system of equations which translate the inter-industrial relations : the cost of each product is the sum of the costs of all material inputs (physical quantities of each of the inputs consumed multiplied by their respective price), of wages (quantity of labour multiplied by the wage rate) and of profits (proportional to the values of the inputs which are the form in which "capital is crystallized. The solution of the system gives the vector of relative prices without reference to value. But the system is descriptive in so far as the equations assume : 1) that the products are commodities, 2) that the labour power is also a commodity, which implies that surplus labour exists and its volume is determined (by the rate of profit which, together with wages, are two variables which vary inversely with one another as shown by SRAFFA) and 3) that the surplus labour is redistributed proportionately to the capital engaged. The equations of the system therefore assume the mode to be the capitalist mode. This description of the system is sufficient to show that capital is not a thing but a social relation since the vector of relative prices depends at the same time on the wage rate and the average profit rate; in other words, economic rationality is not an absolute, it is not above that of

the social relation which determines the share of wages and profits out of income that is, the division of social labour time between paid labour and surplus labour. Hence SRAFFA and the Cambridge school, with great conscientiousness, were able to put an end to the lucubrations of marginalism by demonstrating that the concept of capital scarcity on which it is based, does not exist.

However, while SRAFFA's system is adequate to show the limited significance of the rationality of the profitability calculation, it does not enable us to understand the genesis and development of the capitalist mode since it assumes it as given. In this respect, the system is above all a criticism in the negative sense of the term: by using formal logical arguments of its own, it shows the absurdity of conventional economic theory (marginalist). But it is not a criticism in the positive sense of proposing another system of concepts capable of explaining the genesis of the supposedly given mode.

The Marxist critique of political economy provides this system of concepts, using historical materialism as medium of explanation instead of the economy. However, if the transformation of values into prices as done by MARX in Book III is to be criticized, this can only be done in so far as it is a first approximation: we know that the system of transformation is incomplete since the elements of constant capital and themselves computed in terms of their value and not their prices. It was Borkiewitez who first realized that this was merely the outline of a solution (in this respect Book III, still unpublished at the time of MARX's death, is only a draft). A complete mathematical system of transformation of values into prices is possible : on the condition that one accepts that average profit rate cannot be equal to the rate of surplus-value. If there is confusion regarding this controversy on the "problem of transformation", sustained by BORKIEWICZ, Natalie MOORKOWSKA, HILFERDING, BOUDIN and resuscitated by Paul SWEEZY and latterly by ARRIGHI and EMMANUEL, it is because everyone of them in particular EMMANUEL, has not

understood that profit rate and the rate of surplus value could not be identical. The profit rate is in fact determined by the ratio between the value of some products (products 'a') and that of some other products (products 'b') in a price system of different from that in which the rate of surplus value is defined as the ratio between the value of the same products 'a' (in physical quantities) and the same products 'b'. This non-identity constitutes the very reason why the capitalist system masks the origin of profit and makes capital appear as something having a productivity of its own.

By discarding "transformation" in favour of an immediate apprehension of prices, that is, of the phenomena - the way things appear to be - the economy is divorced from history and economistic alienation is removed.

But this economistic alienation is essential for an understanding of the basic laws of development of the capitalist mode. In fact it is this alienation which explains the logic of the redistribution of the surplus labour in proportion to the fractions of the social capital controlled by the various social segments of the dominant class. In turn, it explains the absolute law of competition and mobility of capital which is a pre-requisite for the equalization of the profit rate. This competition entails the specific characteristic of the capitalist mode: the endogeneity of the progress of the productive forces in relation to the functioning of the system, since the entrepreneur who introduces a more advanced technique forces the others to copy him. This endogeneity of progress makes it appear to be "an exogenous factor" and hence causes society to lose control over its future. It will be seen that the present day crisis of civilization, are aspect of which is noted in the present controversy regarding the "environment" is evidence of the reality of this loss of control. The price of the prodigious acceleration of history launched by capitalism has been precisely this loss of control.

To refrain from analysing the transformation of value into price is to give up any hope of regaining this control over the destiny of society, of superseding capitalism and therefore to abandon the socialist project. Already in the 19th century, German social-democracy believed that socialism could follow the same lines as capitalism in making its "rational" economic choices, except for the expropriation of the capitalists. MARX in his critique of the GOTHA Programme and ENGELS in the Anti-DUHRING had already raised objections to this reduction of socialism to a system of "capitalism without capitalists", which contained the germ of State Capitalism, the capitalist alternative to socialism as a means of susperseding the contradictions of the capitalist mode in the historical form in which it was constituted. BARONE who did not understand the nature of the problem thought he had made a discovery when he assimilated the national behaviour of a Minister of Planning of a collectivist state with the behaviour of the market! The rehabilitation of this method, in practice by having recourse to the market and in theory by using the so-called "rationality of economic calculation" by such Russian authors as KANTOROVITCH and many others and their Western followers such as GODELIER, reflects a reality : that of Russian state capitalism.

The generalization of the commodity form of profit and the transition from a simple interpretation to a complex interpretation of value reduces profit from trade to the common denominator of profit from capital. The fact is that profit from trade is a category prior to capitalism since it presupposes commodity production alone. This profit from precapitalist trade is a monopoly income and, as such, does not follow any specific rules. When the societies brought into contact through monopoly traders are ignorant of each other and of the real social costs of production of the products exchanged, it is quite obvious that the profit derived from monopoly trade can be very large. In that case, as we have already said, in a curious way the subjective theory of value

can find a real medium to operate. The profit in question is none other than a transfer of surplus from one class - and sometimes from one foreign society - to another: that of the traders. This original surplus was obviously not profit from capital but a ground rent or more generally, a tribute. As soon as the capitalist mode becomes dominant, profit from capital becomes the dominant form of surplus. Trade is no longer a monopoly but a capitalist activity like any other which is extended to embrace all products. The capitalist producers know the social costs of production of these products. Competition makes the capital engaged in trade participate in the general equalization of profit. Profit from trade becomes profit from commercial capital, the latter being remunerated like all others at the average rate of profit. Of course, the reward to commercial capital remains a transfer; its root lies in the surplus-value produced elsewhere - in production -; but this transfer is no longer "indeterminate", it is henceforth limited by the average rate of profit, which itself depends in the last resort on the rate of surplus value.

Similarly the generalization of the commodity form of products transforms the scope of the other precapitalist activities, and extends the capitalist production relations to all these fields. Agriculture was the principal locus of activity prior to capitalism where feudal relations predominated. Land rent was the dominant form of feudal surplus, the exclusive land ownership by the precapitalist dominant class is the legal expression of these feudal relations. P.P. REY reminds us, with great talent and shrewdness, of MARX's analysis according to which land ownership is an obstacle to the development of capitalism in agriculture because it provides the monopolists - the landowners - with a means to demand, and obtain, that a part of the surplus value produced elsewhere be transferred to them in the form of <u>absolute rent.</u> But at the same time, while capitalism admits landownership, it does so not only for political reasons (the alliance of all the owning classes of the former modes and of the new capitalist mode against the oppressed classes and in particular, the new proletariat), but especially because it is essentially in its interest.

In fact capitalism cannot proceed further unless - in the society in which it emerges - the producers (who belong to a different of production) become proletarized, that is, excluded from this precapitalist mode to be placed at the disposal of capital as proletarians. Landownership served this purpose during the transition - phase from feudalism to capitalism which is the period of mercantilism. Spurred by the expansion of commodity trade, the land owners turned into commodity producers. The agricultural revolution which, as we know, preceded the industrial revolution in Britain then in continental Europe, reflects this extension of commodity trade to agricultural production with the immediate repercussion that rent in kind was replaced by rent in money form. Competition was was therefore extended, to agricultural production and the modernization which occurred as a result demanded the exclusion of the "surplus" peasant labour which was discarded from the production circuit, and hence became proletarized.

Is absolute rent, the way in which the dominated feudal mode was linked to the dominant capitalist mode, to use REY's fortunate expression, determined? We admit that on this point we differ from the analysis given in capital. MARX puts forward, in Book III, that the transfer of surplus value to land-owners is possible because the organic composition of capital is higher in industry than it is in agriculture. The result is that, at equal rate of surplus value, the surplus value produced in agriculture in larger - for a given amount of capital invested - than in industry : agriculture is a "light" activity. Land-ownership is an obstacle to the extension of the equalization of profit to its domain. It is therefore the retained surplus value which kept separate from the equalization mechanism, determines the rent. This seems to us totally unnecessary. Even if the organic composition in agriculture is equal to its average in industry, or even higher, the land monopoly creates conditions for the structure of relative prices (prices of agricultural products

in relation to those of industrial products) to be such that it contains a transfer of value (this time, a real transfer and not a mere retention outside the equalization mechanism) in favour of the monopolist landowners which constitutes their rent. This distortion of the price structure under the effect of a monopoly is indeed a general principle we shall again come across. Therefore, rent is not determined (meaning determined by the relative organic compositions in agriculture and industry). It is only determined by a social relation, the power relationship characterizing the division of social and political power between the bourgeoisie and the landowners. Rent can only disappear if landownership disappears. In Indeed the bourgeoisie attacks landownership by opening new lands, without landowners, to agricultural production, that is by causing competition to arise between the agricultural products from private owned estates and obtained through free access to the natural conditions of production not limited by land monopoly. Such an example is the opening up of the British market, to North American wheat in the 19th century. Similarly, it brings about competition between the agricultural products of the centre and those of the periphery, dominated by private landownership where, nevertheless - for various historical reasons - the remuneration of labour (hence the rate of surplus value) is lower. This is the meaning of the opening up of the markets of the centre to agricultural products from the periphery, a problem which is associated with the theory of unequal exchange.

Rent, which persists so long as private landownership exists, nevertheless, because of the domination of capitalist relations, takes the form of profit on capital: the profit from capital "invested" in the purchase of land. In precapitalist for nations, land could not be sold or purchased freely : it was the monopoly of one class to the exclusion of another. In capitalist formations it became the object of transactions. Its price - a new category - was the rent it produced when capitalized. Hence rent appeared as the return to the "capital" devoted to its purchase.

In advanced capitalist formations, agricultural production only occupies a small share in the social product; it is no longer carried out by a social class made up of a large number of peasants : it is organized by capitalist enterprises for which land is only one component among others, of the "capital" outlay. Agricultural land therefore becomes the object of frequent and easy transactions which do not meet with obstacles from a peasant social class for whom, as the agricultural economists have clearly noted, agriculture was not only a sphere of production but a way of life. Nevertheless, agricultural land rent did not disappear since the profit from capitalist agricultural enterprises - the share of social surplus-value to which those enterprises are "entitled" - must be used to reward all the capital advanced, including the portion devoted to the purchase of land. Land still has a price because it is the subject of monopoly.

Similarly, by and large, each time that access to natural (or social) conditions of production is limited by a monopoly, there appears a problem similar to that of agricultural land rent, that is, a problem of transfer of value (rather than generation of value). This is a fundamental observation since, this being the case, the problem cannot be directly understood from an analysis of prices; this direct understanding of the reality from appearances evades the question and hence evades the problem of "economic rationality" and its exact significance.

While in advanced capitalist systems the problem of agricultural rent has lost its importance in quantitative terms, though not in theoretical terms, in contrast, urban ground rent has acquired a quantitative importance which is increasing day by day. Ideologists of the system claim that land rent is yet again a "rational" means of ensuring that potatoes are not grown in the Champs Elysees. The "justification" is purely of an ideological and not of a scientific nature. For the reasoning hides the social fact which leaps to the eye, that access to the Champs Elysées

land is not under the control of society but depends upon the monopoly control of one particular social group: the owners of this land. The volume of transfer of value to their benefit therefore depends on their social power as can be seen daily from land speculation and the permanent property scandal of the system. The justification in question being of an ideological nature, it is based on nothing more than a tautological vicious circle, a begging of the question: it is assumed that the "price" paid for access to land represents the "sacrifice" which is "freely" accepted by the purchaser of the tenent (subjective theory of value) and it is discovered ... that the price system of the products of the activities taking place on these lands is "rational"!

The same applies to "natural wealth" (minerals, forest, aquatic and maritime, etc.) in so far as access to them is restricted by a social monopoly. MARX stressed the point that social labour is the only source of value but not of wealth (notably in the Critique of the Gotha Programme). The latter is the quantity of useful objects (their utility being social and not individual as the subjective theory of value attempts to define it) obtained with a given quantity of social labour. This social labour is not carried out in an abstract, immaterial context but under natural given conditions. The distinction between nature and society governs social science, defines humanity in contrast to the animal kingdom. If society controlled access to all natural conditions, it could plan their uses in a rational way, that is, it could choose the ways ans means to obtain, through the utilization of this "natural wealth" over a given social time horizon, the maximum utility for a given quantity of social labour. In the capitalist system, this access to natural wealth takes place in the most chaotic way. There is "free" access to some of this wealth which is therefore wasted at the obvious expense of the society as shown by the problems of the environment ("pollution" of the atmosphere, of water, etc.). This free access excludes the use of this wealth from the economic sphere. For the capitalist enterprise, its use

becomes an "external economy". And yet, at the social level, there is a cost for the use of this wealth: the cost of "fishing pollution" ("cleaning" costs borne by the public authorities additional medical costs to preserve health, additional costs for moving men about, etc.). Other wealth is appropriated and the price agreed by the capitalist entrepreneur depends on the social relations between the capitalist class and the group which monopolies access to this wealth. With regard to the resources of the sub-soil for example, this price will vary widely according to the legislation (whether it makes a distinction between land ownership and that of the sub-soil whether land is private or public property, etc.), that is, according to the social conditions which govern economic activity. We know what social conflicts result from the struggle of capitalism for access to the wealth of the sub-soil in Europe, the United States and other places, in the 19th century. Everyday, events prove that the "royalties" paid by the mining companies to particular governments of the Third World are the subject of bargaining the result of which depend on the political relations which characterize international relations. One can but be amused at the thought that this "price" is regarded as the rational social way of determining access to the natural conditions of production. The same applies to access to the exploitation of forests, waters, etc. which are the subject of legislation and regulations which reflect the social relations.

We shall see that, with respect to the centre-periphery relations and the unequal exchange which governs these relations, the problem of "world prices" of mineral raw materials lies here in its entirety, and that these prices include a transfer of value from the exploited periphery to the centre of the world system.

We must go a step further and consider, in a systematic way, the stages in the evolution of productive forces and production relations of the capitalist system. The mercantilist period which saw the beginning of the system, characterized by the creation of the two poles of the capitalist mode (concentration of money wealth and proletarization) was a period of transition, that is, of juxtaposition of various modes and the reversal of dominance as described by P.P. REY with as much rigour as determination. On the one hand, the law of value here largely operates in its simple form, notably in the sector of petty commodity production. But on the other hand, the concentration of money wealth occurs mostly in a sector which is not governed by the law of value: in the sector of the large-scale Atlantic trade under monopoly control. The industrial revolution, that is, the meeting and the fusion of the two poles created during the mercantilist period opened the way for the completed capitalist mode of production: money wealth became capital by employing, under its control, the "released" labour force which became proletariat. The 19th century, up until 1880-90, is characterized by the industrial form of central capitalist formations. Industrial capital was the predominant form of capital consisting of autonomous units, usually firms (mostly family firms). Competition offered the widest scope for the law of value to operate in its complex form. However, there were some distortions in the operation of the law of value, notably in agriculture which - as a result of land-ownership - remained controlled by the social monopoly of the landowning class (in some cases, big landlords of feudal origin and in others, the peasants, etc). As a result of competition, the centralization of capital continued and, by the end of the century, culminated in a qualitative change in the dominant nature of the system. The fact that capital generally acquired a monopoly form was an indication that the development level of productive forces had by then superseded that which corresponded to the production relations. For monopoly was, above all, an obstacle to the equalization of profit.

Hence prices stopped being determined according to a general law, on the basis of values. The law of value began to have a narrower field of action. Hence, there was no longer any rationality, even an apparent one, to the system of prices. These were determined by the social relations of power within the dominant class, among the financial groups which dominated the various sectors of activity. Until then, the social relations which participated in the determination of relative prices were only those which characterized the relations between the dominant capitalist class considered as a group and the other social classes or groups. From then on, there was no longer one profit rate, but at least two: the rate(s) ruling in the monopolized sectors and that ruling in the dominative competitive sectors. Henceforth politics, that is, the recourse to authority for intervention in the economic field, took on a new form. The relations between the economic sphere, dominant in the capitalist mode, and the politico-ideological sphere, began to change. As POULANTZAS rightly remarked, the ideological character of that sphere began to yield to a political character.

The socialist outcome of the superseding of the system of, the contradiction between the productive forces (whose level of development emphasizes its social nature) and the production relations (which remain dominated by specific social groups and not s society as a whole) constitutes one possibility. The capitalist alternative outcome is state capitalism. The centralization of all production at rational level, through the substitution of state ownership for ownership by social groups, brings the production relations into line with the level of development of the productive forces. It restores the social nature of capital which was masked by the fragmentation of the latter into small fractions privately appropriated. Hence it calls for social planning as a method of economic management. Henceforth, how in fact can prices be determined other than in a purely conventional way, since the entire social product appears as a single commodity? It is in fact a

commodity since the labour force also remains a commodity, indeed, the only other commodity. This in fact is the boundary between state capitalism and socialism. This boundary corresponds to a class boundary, that which separates the proletariat (which continues to sell its labour power) from the bourgeoisie, now a state class as during the ancient time of the tributary mode. Corresponding to this renewal, rather than superseding, of the capitalist society, the relations between the economic sphere and the politico-ideological sphere characteristic of the capitalist mode are maintained: the economic sphere remains dominant. This is why the state capitalism solution to the planning problem is the same as that of capitalism: the determination of "prices" which provide an equal "reward" to the "capital" (its aliquot parts) allocated to the various branches. When BARONE proposed that solution - which appeared more rational than that of private monopoly capitalism - and when Russian economists took over this proposition, they returned to the "rationality" of the capitalist mode, shaken by the private monopolies, but they did not supersede it!

Let us review our results. The capitalist calculation has no rationality in itself which does not exist; rationality always exists in relation to a production mode. It therefore never goes beyond the context of the social relations which characterize the mode in question. In the capitalist mode, in its completed industrial form, this rationality is limited: 1) by the essential social relation which determines the rate of surplus-value, that is, the rate of exploitation of labour, 2) by the secondary social relations which determine the relations between the bourgeoisie as a whole and the land owners who control access to some (but not all) natural wealth. With the private monopolies, there is a third limitation: that which determines the social relations within the dominant bourgeois class.

The resultant of the economic calculation on such a basis is irrational from the social point of view and this irrationality appears as soon as the level of development of the productive forces requires that they should be controlled by society as a whole. This is where the problem of "the environment" comes in. This expression is certainly an unfortunate one and only indicates that the problem is felt by society as a malaise, but is not fully, hence scientifically, understood. It covers two sets of realities existing at three different levels where the irrationality of the system manifests itself: 1) the waste of "human resources" (an equally unfortunate expression), 2) the waste of natural wealth, and 3) the necessarily short time-horizon of the "economic calculation".

The capitalist mode of production considers man in terms of labour power, manpower rather than a final cause: its inherent law is therefore to try and reduce the cost of this labour power, maximize the rate of surplus-value and leave out of the economic calculus - in the field of "external economies" for the enterprise - what has been wrongly termed" social costs" or "human costs" (education, health, etc.), thereby reflecting economistic alienation by the very choice of the term "costs" (like that of "human resources" which suggests that man is a "resource" - not an end in himself - that is, a resource .....for capital). We shall see how this immanent quest for a maximum rate of surplus value is the very basis of the principal contradiction of the mode. Piero SRAFFA has clearly shown how this quest determines the price structure, the "rationality" of choices. State capitalism is also governed by the same law: under that system the labour power remains a commodity and economistic alienation persists. Socialism is defined by the social control of the three relations: social labour time allocated for the reproduction of the cycle of production/social labour time allocated for an extension of this reproduction/non-working time. Thereby, it enables full control over accumulation which, in contrast, in the capitalist mode, entirely governs the social future.

The capitalist mode of production may or may not take into account the use of natural wealth according to the hazards of social relations not controlled by the society. The "price" of the products which determines their relative use, may or may not - by chance - contain the necessary margin to enable society to maintain or renew the "stock" of wealth. Hence relatively high rates of accumulation, measured for example according to the traditional methods of national accounting, and consequently, relatively high rates of growth of the social product measured in the same way, are obtained by taxing the future through the exhaustion of natural resources. Shigeto TSURU has shown that the high rates of growth obtained under capitalism were generally fictitious because at that price, the firms internalized the external economies for which the price paid was the destruction of man and resources. Examples of the plunder of the soil which turned into desert and were not reconstituted, of mineral wealth, etc., abound in the history of economic "growth" particularly in the dominated, dependent peripheral areas.

A society which wants to assume control over its future should adopt a long time-horizon. That was the case of precapitalist societies in which the dominant sphere was precisely the politico-ideological sphere rather than the economic sphere. However, if these societies were not in fact in control of their future although they claimed doing so, it was because they could not control nature, owing to the low development of their productive forces. This explains their religious alienation. This is why such societies built pyramids and cathedrals, that is, monuments serving as a momuments for all eternity (corresponding to a maximum time-horizon) and not intended for use by man but by the gods to whom men had dedicated themselves. The capitalist society no longer aspires to this: though it may have liberated men from the gods, it has not freed men from themselves and therefore does not have any object in view for mankind.

It can only offer man an alienating ideology, that of consumismo, that is, the prospect, over a very short time horizon, (10 years?) of "growth" of consumption without reference to actual human needs. Then how does this shortening of the time-horizon arise? The answer is obvious : from the dominant function of the rate of surplus - value. For this rate determines the rate of accumulation, hence ultimately the famous "rate of time discount" on the basis of which the choices are made. This rate rationalizes what appears to be irrational. But we know that a rate of 7-15% means that the alternative choices are indistinguishable from one another in a time-horizon of a maximum of 10-15 years. Hence this is why the "economic calculation" taught with the arrogance of ignorance and alienation is not a scientific method but an ideological justification for the spontaneous behaviour of capitalist enterprises. Even if one attempts to transpose this to "national" or "social" level and to remove some of its more obviously obsurd effects by making use of "shadow prices", it would be impossible to alter its time-horizon. This is precisely all that the World Bank and the technocratic schools are able to teach with a pretensionsness which hides the lack of culture. When the system takes into account the use of natural wealth, it can only do so within the limits imposed by this short time-horizon: Michael TANZER has shown that this is so, for example, as regards the economic policies of petroleum companies whose gigantic size and regular use of the mysterious services of information science and computers make us believe that the policy is "rational". The crisis of our civilization lies entirely in this absurd reduction of human time. One of its aspects, by no means the least important, is the inextricable contradiction, with which it surrounds itself, between the "objectives" of education and those of the system of production. In a world which is making rapid progress, education cannot be confined to the teaching of techniques which correspond to definite professional capacities since these are hardly known for more than 20 years in advance. Under these conditions, education should aim to train men who later, by themselves and throughout their life, are capable of adapting themselves, of

making progress and also, in reverse, of adapting economic evolution to suit their own desires. But such is not the object of "educational planning": a victim of economistic alienation, it is inclined to regard training as a "cost" (which implies that this "cost" forms part of the external economies to the firm) and therefore proposes to adapt its products to the "needs" of the economy which, in fact, the system does not know for more than 10-20 years ahead!

The rational economic calculation of a socialist society cannot therefore be based on the same principles - which, would be universal - as those of capitalism, even it is state capitalism. We must first recall and stress the fact that, for the society as a whole, only the calculation in value terms, that is, in terms of social labour time, has any meaning. All accounting in terms of prices which "equalizes the reward to capital" is meaningless. The organization of the social division of labour (between capital goods production and that of consumer goods made possible by these capital goods) and the time required to pass from a given structure of this division to another structure corresponding to a higher level of development of the productive forces (time depending in the last resort, not on the possible "saving" of society but on the duration of the training and transformation of men: technical training reorganization of production, etc.) should be considered differently: by choosing that alternative which reduces to a minimum the social labour time required within a given time-horizon. This time-horizon should be fixed by society in relation to its maximum degree of mastery over knowledge of the future (prospects for technical and scientific progress). As regards the useful goods which have to be produced, they should be the object of a continuous, explicit reference to the needs expressed by society apart from any reference to prices (hence to the market and the distribution - necessarily unequal - of income): only then can society choose between labour time and non labour time, rather than being ruled

the futile choice of "goods", the - maximum - labour time not being subject to any discussion. This latter method - which is that of capitalism, derives from the fact that the aim of the system is to maximize not the product but surplus-value, hence giving rise to economistic alienation. Lastly as regards natural resources, they should all be taken into account and, within the given time-horizon, a proportion of the product must be allocated for their maintenance and reconstitution. This proportion, reduced to a minimum, governs the choice of alternatives. It also depends on the prospects for scientific progress which allows a "resource" to be used up, if there is a future alternative production of goods enabling the same needs to be satisfied by making use of another "resource": such is the meaning of "reconstitution". It is in this spirit that we must understand MARX's observation that the worker in a socialist regime, cannot "receive the entire product of his labour" as naïve socialists claimed (Critique of the Gotha Programme);

Under these conditions, society will have regained control over its future and brought it to a higher level.

II

Capital accumulation in the Central Capital formations

Having clarified the conceptual system necessary for an analysis of the capitalist mode and formations, we can now approach the problem of capital accumulation, its mechanisms and essential features. This analysis should enable us to understand the exact nature of this additional concept of central capitalist formations which we introduce here and, in contrast, that of peripheral capitalist formations which we shall desceibe in detail later.

The central formations are self-centred ; this is a very important attribute. The purpose of this section is to elaborate on this feature while the sections which follow will deal with the conditions and forms of these formations.

The capitalist mode, as we have said, differs from all previous modes in that henceforth, it is the appropriation of the means of production, themselves products of social labour, rather than the appropriation of the natural means, which governs the production process. This characteristic, which reflects a qualitative jump in the level of development of the productive forces, partially corresponds in conventional economies to the vulgar definition of "capital", meaning simply capital goods, and to the unfortunate expression "capital-intensive technique" used in conventional economics to describe this qualitative jump. However, it is necessary

to emphasize here that conventional economics claims as the basis of its analysis, the fact that capital goods are produced at a point in time prior to the production of consumer goods which they render possible. The production "détiur" is the very basis of marginalism and, under Bohn Bawerk, the "productivity of capital" in term of "discounting the future" (the "price of time"). This reasoning which seems to rest on a commonsense observation is entirely meaningless. For the capitalist mode is characterized by the simultaneous production of capital goods and consumer goods, by the social division of labour between these two main branches of social production. It is therefore the study of the interrelation between these two branches that is crucial for the study of accumulation. In fact, this social division of labour determines and reflects the level of development of the productive forces, that is, the overall productivity of social labour (the amount of utility obtained from a total labour distributed in a certain way); it also determines the distribution of social income. Therefore the determining inter-relation in a self-centered capitalist system is that relation which exists between the production of consumer goods and the production of capital goods intended for the production of the farmer. This determining relation has actually been a characteristic feature of the historical development of capitalism at the centre of the system (in Europe, in North America and in Japan). It therefore provides an abstract definition of the "pure" capitalist mode of production and has been analyzed as such in "Capital". It can also be shown that the development process in the USSR as in China is also based on this determining interrelation although the pattern, especially in

China, was original. We shall later see that there is a fundamental difference between this model of self-centred accumulation and another model - that of accumulation at the periphery of the system - based on another dominant interrelation.

In fact, Marx showed that in the capitalist mode of production, there is an objective (i.e. necessary) relation between the rate of surplus value and the development level of the productive forces. The rate of surplus value mainly determines the pattern of social distribution of the national income (its apportionment between wages and surplus value which takes the form of profit), and hence, that of demand (wages being the determining factor of demand for mass consumer goods and profits being totally or partially "saved" for "investments"). The level of development of the productive forces expresses itself in the social division of labour : the allocation of the labour force, in the right proportions, to sections 1 and 2 of the reproduction model given in Book II. This objective relation, a fundamental element of Capital, is nevertheless very often "forgotten", especially in the debate on the tendency of the rate of profit to fall. The argument, often put forward, that the increase in the organic composition of capital may be offset by the increase in the rate of surplus valve is no longer substantial once it is understood that the contradiction between the system's capacity to produce and its capacity to consume - inherent in the capitalist mode of production - is constantly being overcome and that the objective nature of the relation between the rate of surplus - valve and the development level of the productive forces manifests itself in this way. As we have several times emphasized, this theoretical model of accumulation is infinitely richer than all the empirical models which have followed because it demonstrates that "real wage" cannot be "just anything" and that it therefore gives an objective status to social power relations.

The objective relation in question manifests itself in the periodic fluctuations of employment and unemployment. A rise in the rate of surplus value above the objectively necessary level leads to a depression, owing to a lack of effective demand. A reduction in this rate slows down economic growth and thereby creates the conditions for a labour market favourable to capital. The pattern of this adjustment - which actually corresponds to the history of accumulation from the industrial revolution to the economic depression of the 1930s (a history marked by the trade cycle) further complicated by the secondary effects of wage changes on the choice of techniques, thereby revealing the sub-optimal nature of the economic system. This system is characterized by a trend towards full-employment (which does not exclude but actually implies a small margin of permanent unemployment) and wide periodic variations in unemployment. The internal transformations of contemporary capitalism have rendered this adjustment mechanism non-functional. The monopoly ownership of capital and the organization of workers on a national scale, make it possible "to plan" for the purpose of reducing periodic fluctuations. If the working class agrees to operate within the framework of this system, that is, in actual practice, if under the aegis of the state, capital and labour agree to a "social contract" whereby real wage increase is related to productivity (in given proportions worked out by the "technocrats "), it is possible to ensure a situation of stable quasi full-employment. Of course with the limitation that some sectors of society can, by rejecting the "contract", cause disturbances for example, the small and medium firms which will bear the brunt of concentration and which way particularly within comparatively backward structures, - have a certain capacity for political blackmail. Another constraint is that external relations cannot be

planned in this way. There is an increasing contradiction between production on a world scale - through the increasing power of multinational corporations - and the persistently national character of the institutions of both capital and labour. The social democrat ideology, which manifests itself in this type of social contract, is confined within the boundaries of the national state.

However schematic the model may be - obviously so, since it is an abstraction from reality - it nevertheless gives the essence of the system. In this model, external relations are left out, which does not mean that the development of capitalism place within a national, self-sufficient framework, but that the essential relations in the system can be understood without those external relations. Moreover, the external relations of the developed regions as a whole with the periphery of the world system remain quantitatively marginal in relation to the interval flows of the centre. Furthermore these relations, as we shall demonstrate, derive from primitive accumulation and not from extended reproduction; and this is why they can validly be left out. The historically relative nature of the distinction between mass consumer goods and luxury goods is also clearly brought out here. In the strict sense of the term, we must regard as "luxury" goods, those products for which the demand derives from the part of profit which is spent. The demand which derives from wages rises with economic growth - the progress of the productive forces. While, in the early history of capitalism, this demand related almost exclusively to essential consumer goods: food, textiles and housing, it is now,

at a more advanced stage of development, increasingly related to durable consumer goods (cars, house-hold appliances, etc.). However, this historical sequence of types of "mass" consumer goods is of decisive importance for an understanding of our problem. The structure of demand in the early stages of the system favoured the agricultural revolution by providing an outlet food products on the domestic market (historically, this transformation of agriculture took the form of agrarian capitalism). We also know the historical rôle of the textile industry and of urbanization (hence the saying: "when the building trade goes well, everything goes well") in the process of a accumulation. On the other hand, consumer durables - whose production is highly capital intensive and skilled-labour using - appear rather late when productivity in agriculture and in the industries producing non-durable goods has already passed the decisive stage.

This analysis is essential for a complete demonstration of the main thesis of the study. From it, we shall be able to understand the expansionist nature of the capitalist mode, the way in which its immanent contradiction is overcome by shifting this contradiction to the periphery, hence the way in which the periphery is moulded to satisfy the needs of the centre and the stages of this process of moulding in relation to the stages of evolution of the centre.

Let us here make the following observations :
Firstly, self-centred accumulation, i.e., without an outside extension of the system, is possible, at least in theory, if real wages increase at a given calculative rate. But the inherent tendency of the system is to maintain the level of real wage fixed, it being possible to raise it only thorugh trade union action by the working class. If the real wage does not increase at the required rate,

accumulation demands a continued external expansion of the market. It will be seen that this is the very basis of the expansionism essential to the capitalist mode. It will also be noticed that throughout the 19th century, until around 1880, with real wages at the centre not having increased at the required rate, a certain form of expansionism was necessary, giving certain functions to the periphery; whilst as from the last decades of the century, real wages at the centre increased at a more marked rate, giving to the capitalist mode new forms of expansionism (imperialism and capital exports) and to the periphery, new functions.

Secondly, self-centred accumulation leaves the capitalist mode with a tendency to be exclusive, i.e., to destroy all the other (precapitalist) modes. In exceptional case, the central capitalist social formation tends to become identified with its dominant mode whereas all previous formations were stable combinations of various modes.

Thirdly, self-centred accumulation is the necessary condition for a falling trend in the rate of profits to appear. The monopolies and imperialism are the system's answer to this falling trend by preventing the equalization of the profit rate. However, the problem of surplus capital absorption is aggravated by two factors. First, there is the repatriation of profits from the periphery where capital had been in search of a higher rate of return. Secondly, there is the continued fall in the profit rate at the centre, parallel with the operation of the self-centred accumulation mechanism. In order to overcome this problem, the system adopts the form of state monopoly capitalism which organizes the absorption of the surplus. To analyze the system's solution to its problems, we need to introduce a new concept : that of surplus , wider that the concept of surplus value.

A brief example of the fundamental difference between this last analysis and that of dogmatic marxism is supplied by the discussion of the book by BARAN and SWEEZY. We continue to believe that the book is an important contribution giving new essential facts concerning the way in which the system, in our time, overcomes within its centre the fundamental, permanent and increasing contradiction between the capacity to produce and the capacity to consume. Hence we believe that the law of the tendency of the surplus to rises which is a result of the policy of the government and the monopolies at the time of contemporary monopoly capitalism, does not at all contradict the law of the tendency of the rate of profit to fall. On the contrary, it is a manifestation of it in the system of our time. And yet some observers have objected to BARAN's and SWEEZY's contribution. Why? Because it is embarassing, since it shows that the system Can Work (and yet, there is nothing more obvious). People tend to prefer the religious and reassuring vision of the apocalyptic catastrophe and of the golden age miraculously achieved at one stroke to the disquieting vision of perpetually changing conditions which call for constant renewal.

Ernest Mandel's way of "refuting" BARAN and SWEEZY is typical. Rather than making critical analysis of the system to discover any inconsistencies, MANDEL simply describes our American authors as "Keyesian"! This is because they made a serious critism of Keynes, since they saw that Keynes work reflected the need for a current theory to explain important facts. But in making a thorough criticism of Keynes, we discover both the problem (of the absorption of the surplus at the time of the monopolies) and the answer to the problem; we discover that the Keynesian theory of liquidity masks the real problem, i.e., the contradiction between the capacity to

produce and the capacity to consume which can only be understood on the basis of the theory of the capitalist mode of production; that we must look elsewhere than Keynes to find out how the system overcomes this contradiction, which is exactly what BARAN and SWEEZY did, and which induced them to the methods of absorption of the surplus. In rejecting this type of criticism, MANDEL condemns himself to be uninteresting : having eluded the new problems raised, he is reduced to vulganizing Marx. No doubt, this is why his "handbook" is very similar to that of the Soviet Academy : the only difference is that along with the vulgarization of Capital, MANDEL makes a diatribe against the Soviet bureaucracy while the Russian authors adopt the same approach of juxtaposing to the same type of vulgarization, the apologia of their own system! Trotskyism is full of such attitudes and this why it is the real twin brother of the official Soviet ideology; all equally dogmatic.

We shall come back to these problems in the sections which follow.

III

THE CONDITIONS FOR SELF-CENTRED ACCUMULATION: THE ROLE AND THE FUNCTIONS OF THE MONETARY SYSTEM

Monetary theory is, par excellence, the field of an "economic science" which - because it is tarnished with the major defect of "economism" - only deals with pseudo - problems. For money masks the essential relations - production relations (of which a scientific analysis requires that "economic science" be superseded by a complete social science) - in order to highlight superficial relations i.e. exchange relations. This is why in the last analysis, all past or contemporary non-marxist monetary theories are based on the false quantity theory : the "refinements" of the Keynesian theory of liquidity and of the neo-marginalists of the Chicago School have not succeeded in extracting monetary theory from its essentially false framework. In fact, the banking system plays only a passive rôle of adjusting the quantity of money to the need. If it also has an "active" rôle in the mechanism of accumulation (in the process of acquiring the surplus-value), this function is not suspected by current monetary theory.

If monetary economics is a very weak point in current economic theory it is because, strictly speaking, the subjective theory of value can answer the question of the value of money only in a tautological way (the value of money is the value of the goods which it can purchase), or by having recourse to a subterfuge - "liquidity" which masks another tautological reasoning (to talk of money acquiring its value because of its liquidity, i.e. from its nature as money, is like talking about the sleep-inducing property of sleeping pills). This is why marginalism and neo-marginalism must have recourse to the quantity theory of money.

It is not surprising that money has become the source of many illusions, among others, the illusion of "regulator" of economic fluctuations, prices, foreign balance, etc. Obviously, at the same time - this is always the counterpart of such illusions - the true rôle of money in the mechanism of accumulation is evaded by a "theory" which goes into futile discussions and quantitative observations which are as confused as they are numerous.

Applied to the situation in the "underdeveloped countries", the "monetary theory" then produces some curious results. Criticisms are levelled against so called "perverse monetary mechanisms" which are peculiar to the monetary systems of the "underdeveloped countries", but nothing is said of the real characteristics of the system which simply transfer to the monetary system the fundamental dependences which are situated at another level. If we want to understand the rôle and the functions of money in the peripheral formations of capitalism, we must first throw light on the question of the functions of money in the mechanism of accumulation in the "pure" capitalist mode of production, and this is the subject of this section.

Money has four main functions : it acts as a measure of value, as a medium of exchange, as legal feuder and as a store of value. Marginalism stressed the rôle of money as a medium of exchange, the other functions of money being derived from this one. Keynesian theory emphasizes the "hoarding function" (whence, liquidity preference), regarding it as the most specific function of money. Rist and Nogaro do not give priority to any one of the functions, preferring to be positive and empirical. The contemporaries (Lindahl, Myrdal, Lundberg, Harrod) give a complementary though secondary rôle to these two functions in the mechanisms of accumulation, while the Chicago School, with Milton Friedman, goes back to the quantity theory. Marx, partly with Schumpeter, occupies a special place. He

is the only person to have opened the way for a true discussion on the rôle of money in the accumulation process (in realizing the product).

From the classical theory to Keynes and Milton Friedman:

Paradoxically, the economic theory described by Keynes as "classical", like Keynes own theory, gives the rate of interest a decisive rôle in the mechanisms of economic development and a very negligible rôle to the banking system.

For the authors whom Keynes has criticised, saving and investment are the real factors of the economy. However, the monetary forms in which these quantities are expressed bring an additional cause of maladjustment to the real causes of possible disequilibrium. There is a "natural rate" of interest which brings about equilibrium in the economy. At that rate, the supply of saving, taking into account the "time preference", is equal to the demand for investment, taking into account the productivity of capital. This seems to be the basic reason for the supply of saving and investment demand to be in equilibrium.

But, besides the fact that this analysis is tautology since neither Fischer nor Böhm-Bawerk established the productivity of capital on bases other than "time preference", so that the natural rate of interest is nothing more than the time preference discount rate, the mechanism whereby the "natural" rate of interest is determined by the point where the savings supply and demand curves intersect actually explains nothing at all. This has been clearly shown by Keynes : when there is a shift in the demand for capital (innovation requires a larger investment), incomes and hence the supply of saving also change! In resorting to history to solve the

problem - capital supply to-day is determined by yesterday's distribution and volume of incomes - the logical difficulty is bypassed.

Be that as it may, the early marginalists gave no consideration to the monetary conditions. It "was obvious" that monetary conditions caused the money market rate to "tend" towards the "natural rate". But it was not known exactly how this happened. A new era began when Wicksell showed how the cummulative processes of the banking mechanisms enabled the money rate to diverge from the natural rate. This analysis later adopted by Myrdal, Keynes and Cassel was used to explain the trade cycles.

In all these arguments, the underlying assumption is that the rate of interest determines the volume of both saving and investment. But this is not so. Saving depends essentially on the absolute and relative volume of income from property, while investment varies only slightly in response to changes in "i"; it depends mainly on the degree of correspondence between capacity to produce and capacity to consume.

Keynesian theory contains the same paradox between the excessive importance attached to the rate of interest and the passive rôle of the banking system. The disequilibrium between saving and investment is ultimately attributed to liquidity preference which prevents the rate of interest from falling below a certain minimum level: the rate of interest is determined by the state of liquidity preference, taking into account the volume of money supplied by the banks (since "interest is purely monetary", according to Keynes). Furthermore, the forces of equilibrium determine relative prices such that the marginal efficiency of the different capitals are equal to that rate. From then on, there is no gap between "i" and

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the effeciency of capital and hence no more net investment. We are back to the equilibrium state of the Swedish School where, the money rate being equal to the natural rate, profits are zero. But obviously this equilibrium may occur at a level of under-employment. The reason why it can be necessarily so is that, whatever may be the volume of money in circulation, the rate of interest cannot - because of liquidity preference - fall below a certain level. The banking system is then totally impotent. This explains why many Keynesian economists condemn the policy of monetary expansion which, beyond a certain point (when the rate of interest has dropped to its minimum level) can only give rise to inflation even in the absence of full employment.

The whole analysis rests on the liquidity preference concept, i.e., on the concept of the propensity to hoard. But does such a propensity really exist in the capitalist mode of production? First, what is the "need for liquidity"? On the one hand, it is the need for money to finance current transactions. Up to what point is an entrepreneur prepared to pay for the necessary funds to ensure his current production? Obviously up to the point where the interest charges on the money borrowed reduce his profits to zero. Here again, the Ricardian analysis is more realistic than that of the marginalists. On the other hand, it is the money needed for hoarding. But in a capitalist society, for fundamental reasons, there is no propensity to hoard. Once the required savings/reserves have been constituted, the entrepreneur has no need to hoard. He saves in order to invest. If he hoards, it is because he is forced to do so, since so long as investment brings in a positive return, he will expand his enterprise. The question is not to determine why the of interest cannot fall below a certain minimum level but why the marginal efficiency of capital can fall to such a low level. But on this point, Keynes' explanations are very vague.

What is disappointing in Keynesian theory is that the banking system seems powerless not only beyond a certain point but permanently so. We might think that money has a passive rôle in so far as its supply is geared to liquidity requirements. Keynes considers that this supply is inelastic. It is this inelasticity which, when demand fluctuates, determines the current changes in the rate of interest. It is true that interest rate changes are sometimes due to the adjustment of the quantity of money to meet the demand. But these difficulties are only temporary and cannot explain the average level of the rate of interest over a long period "where Keynes speaks of the adjustment of monetary demand to available supply, there is rather an adjustment of the quantity of money to meet the demand". The "passive" rôle of money (in this sense and not the way Say meant it) is totally foreign to the quantity concept. On the other hand, the inelasticity of the supply of money in Keynesian theory, its non-flexibility to meet the demand have led the author back to the quantity concept.

The Passive rôle of the monetary system: the issue of currency to meet requirements

The first problem is to find out how MV is adjusted to PT. Total saving is not a homogeneous whole; we must distinguish between creative saving constituted by the amount set aside by entrepreneurs for the future expansion of production and the reserve saving set aside either by consumers for future expenditures on final consumer goods, or by entrepreneurs for financing all the productive expenditure needed to ensure current production and its marketing.

This liquidity constitutes a first social need for money. The banking system adjusts the quantity of money in circulation to this demand by means of short-term credit. In fact it is the demand by entrepreneurs which leads the commercial banks to give short-term

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credits, i.e. to put bank-notes and deposit money into the economic circuit. These credits are only used for the current functioning of the economy, i.e., to spread over time the inflow and outflow of business funds.

The whole question then is to find out whether this social need for money is predetermined, i.e., whether, assuming that payments habits remain unchanged (this is true for the short-term but in the long term, the improvement of banking techniques actually leads to an increase in the velocity of circulation of money in response to the growing demand for it) the size of the national income is predetermined, in other words, if the level of activity and that of prices is also predetermined. If in fact the banks can alter these levels by increasing or reducing the quantity of money, then it is meaningless to say that the banking system adjusts the quantity of money to the demand for it.

Here again, we want to know whether basically the levels of activity and of prices are determined by the quantity of money or whether they finally depend on other economic factors. Keynes insists that the quantity of money supplied is the primary autonomous variable. This assumption is unsupported. But there is something more serious: what are the forces which determine the level of the marginal efficiency of capital? Keynes has nothing to say about this. In fact, this efficiency which is no more than the return on investments is directly linked with the extent to which society's capacity to produce matches its capacity to consume. If ever the capacity to produce were to be higher than the capacity to consume, the return on investments would soon fall to zero so that, whatever the rate of interest, there would be a reduction in the level of economic activity.

Hence basically, the level of economic activity depends on something other than the quantity of money. Is it the same same for the level of prices?

The quantity theory of money relates the value of money automatically to its quantity. But although the automatic relationship in Fischer's equation has now been rejected, it does not follow that all traces of the quantity concept have been removed from the theory. An attempt is even being made to save the quantity theory by demonstrating that it is related to the subjective theory of value. Thus Mises affirms that when "M" increases, this means that some incomes have increased and since the individual's marginal utility of money falls when income rises, therefore prices rise. Is the argument a strong one? When "M" increases, generally there has been an increase in production since the additional supply of money enters the economy by concrete channels. To meet an increase in demand, there is an increase in supply.

Economic theory seems to have embarked on a completely new path, i.e., the study of money's rôle in "satisfying the demand for liquidity".

It is doubtful whether the analysis of liquidity has entirely eliminated the quantity concept. In the Keynesian model, the money supply and the rate of interest are given and the level of liquidity preference determines the proportion of money that is hoarded (and by subtraction, the proportion of money that is "active"). Since the interest rate determines the volume of investment (as the marginal efficiency of capital is an independent variable which does not depend on the quantity of money), and thereby the level of national income, all the data of the economic system are therefore given except for the general level of prices which must be determined, according to the quantity formula, by the relation between real

national income and the quantity of active money. Therefore it may be said that Keynes is an adherent of the second degree, to the quantity theory. This is why, when the effect of liquidity preference is no longer operative, the quantity concept is revived. The view according to which the money supply is a given factor governing all other factors (in Keynesian theory, the quantity of money determines both the level of national income and the level of prices instead of the latter alone, as in the classical theory) instead of being itself a variable dependent on the money demand, i.e. on the level of income and prices, has made it easy to reintegrate the Keynesian system into the classical system. This reintegration, worked out by Modigbani in a general model, incurs all the criticism made by Nagaro of the "mathematical" method and of the quantity theory. In fact, an anti-quantity theory stand is incompatible with any general equilibrium theory since the system must contain an independent variable. Under Milton Friedman, the Chicago School returns to the quantity concept. In accepting the quantity equation, it has to guide research into the only direction possible for an empiricism which persists in seeing only the appearances: that of the immediate correlations between the quantity of money and the different variables of the system ("the permanent income"), the "psychological" analysis of the "desire to hold money" and all the other problems which are false because they are not correctly formulated.

If the quantity theory is rejected as a whole, we are then left with the whole problem of the determination of the value of money. Under these conditions, it is possible to distinguish between two cases: the case of a currency convertible into gold and that of an inconvertible currency. In the first case, the cost of production of gold will certainly play a decisive rôle in determining the general level of prices. If, on the other hand, the

currency is incovertible, the value of gold no longer serves as a safety mechanism. Until then, credit expansion could not be greater than the "demand" since the credits supplied were not needed by the entrepreneurs. The quantity of money could only be increased in the form of a distribution of purchasing power without any actual counterpart (th issue of paper money for example during a war). The rise in prices (due to the imbalance between incomes and production and not to the quantity of money) leads to the abandonment of convertibility. When the banking system no longer purchases gold at a fixed price, expansion of credit or the issue of purchasing power can be unlimited since they involve gold in the general price rise. The fundamental dependence of the money supply on the demand for money therefore seems to have been abolished.

Demand-pull credit inflation is then possible, at least within a national autonomous monetary system. But since inflation leads to changes in the foreign balance (normally a deficit in the latter) and since - at the level of the world capitalist system - gold remains the ultimate means of payment, the national economic policy of a country can come into conflict with that of other countries. We shall have the opportunity, further on, to examine in greater details, this important aspect of the contradictions of the contemporary system which reflects an essential conflict between the world level of the productive forces and the national character of the institutions and the political and social framework.

The rôle of money in the accumulation process: the "active" function of the monetary system

We have just seen that the monetary system passively fulfilled an important "technical" function: that of adjusting the supply of money to the need (the demand) expressed in a "state of equilibrium", i.e. assuming simple reproduction. The monetary system performs another, far more decisive, function, although it is totally neglected by conventional theories: that of making extended reproduction possible. We will call this function the "active" function of money, thereby drawing attention to the active rôle of the monetary institutions which perform the function of a planner who, foreseeing the future, adjusts supply to a dynamic demand.

Capitalist accumulation requires an increasing quantity of money not only because the gross national product is increasing but also because, in order for saving to be turned into investment, there is a constant need for new money to be injected into the circuit even before the gross national product has increased. At the time when it is made, the new investment does not yet have market because all the existing markets at a given moment cannot exceed the volume of production at that moment. But it will create this outlet by expanding production. However, in order to invest the entrepreneur needs to hold sums of money. It seems then that a pre-existing market should enable him to sell that part of his output the value of which is intended for the expansion of his production, in order to "realize" his "saving", his additional capital, in money form. The problem seems insoluble since the entrepreneur cannot find such a market. This is because the markets existing at the time when he wants to sell cannot exceed the volume of current output, and because he would have to find today a market equal to tomorrow's volume of output. In reality it would be sufficient if the entrepreneur could somehow today get hold of an additional quantity of

money equal to the amount destined for the accumulation which will tomorrow create his market.

This decisive problem, that of pre-existing markets, is that of Rosa Luxemburg. Analysing Marx's diagrams of extended reproduction, Rosa Luxemburg believes she has found that dynamic equilibrium is not possible unless there are pre-existing external markets (external to the capitalist mode) and that consequently the capitalist mode must, when it has "conquered" the whole world, come up against an unsurmountable obstacle and then collapse by itself. Rosa Luxemburg's mistake is precisely that she does not take into account the rôle of money as a means of restoring the dynamic equilibrium.

In this connexion let us go back to Marx's own example, concerning a model of extended reproduction in which half the surplus value produced in Department I (production of the means of production, indicated by the subscript 1) and one-fifth of that produced in Department II (production of consumer goods) are "saved" during the first period, to be "invested" at the beginning of the second period, by adding to the constant capital (c) and the variable capital (v) in proportions identical to those of the first period. This is therefore an extensive model of extended reproduction with no technical progress (with no change in the organic composition c/v of either branch from one period to the other), made possible by an expansion of the labour force.

For the first period we have :

I. $4000\ C_1 + 1000\ V_1 + 1000\ S_1$ (400 Sc1 + 100 Sv1 + 500 S'_1) = 6000 M1

II. $1500\ C_2 + 750\ V_2 + 750\ S_2$ (100 Sc2 + 50 Sv2 + 600 S'_2) = 3000 M2

We have broken down the surplus value generated in each branch into its three components: that which is saved for accumulation in the same branch, realized in the form of a later investment in means of production (Sc), that which is saved for a later purchase of an extra labour force (S_v), and that which is consumed (S'). These components are written in brackets.

The production of the means of production during this period (6000) exceeds the demand for these means which is expressed during the same period (4000 + 1500) by the amount of surplus value produced in I and not consumed (500). Similarly the production of consumer goods (3000) exceeds the demand expressed during this period (1000 + 750 + 500 + 600) by the amount of surplus value produced in II and not consumed (150).

But during the following period the equilibrium equations become:

I. $4400\ C_1 + 1100\ V_1 + 1100\ S_1$

II. $1600\ C_2 + 800\ V_2 + 800\ S_2$

Beyond the mere renewal of the means of production, the demand for the extension of the productive apparatus at the beginning of the second period absorbs the surplus production of I during the first phase. In fact (4400 + 1600) - (4000 + 1500) = 500. Similarly the demand for consumer goods during the second period resulting from the increase in the labour force employed absorbs the surplus production of the first period, since (1100 + 800) - (1000 + 750) = 150.

Thus part of the production of the first period is absorbed during the next period, and so on.

It will be noted that the assumptions of Marx's example - different rates of accumulation from one branch to the other and unchanged organic compositions - are unnecessary. Anne Marie Laulaquet has shown, in a general model, that dynamic equilibrium is possible, if certain proportions are respected, by assuming an equal rate of accumulation in each branch and organic compositions rising gradually from one period to another.

This model shows that there is no problem of "necessary external markets", but only a problem of credit: the entrepreneurs must hold, during one period, money resources which they will only recover when their production is realized during the next period. This realization will be possible if certain proportions (between M_1 and M_2, C_1 and C_2, etc.) are respected from one period to another. If these proportions are respected during the second period, the entrepreneurs will be able to repay the advances at the end of this second period, provided that the monetary system makes them a further advance, greater than the previous one, corresponding to the requirements of equilibrium during period 3 etc.

Dynamic equilibrium is possible without external markets, on condition that an ever-increasing quantity of money (we are thinking in terms of constant prices) is injected into the system. This new quantity of money reaches the entrepreneur either through gold production or through the banking system. The analysis of the channels of penetration of this additional gold was made a century ago by Marx. We will not go over this. Suffice it to say that the new gold production makes possible a special sale: the gold producer buys with his profits which are in metallic form the products of other entrepreneurs, either for his consumption or to expand his industry. Thus the entrepreneurs can sell their "surplus product" (in which their

real saving is crystallized) and realize in money form the value destined for the expansion of their industry. With this money they can buy means of production and engage workers. The potential market existed but there had to be a special monetary mechanism to enable the entrepreneur to obtain today in money form the profit from the market which was going to be created by this investment, made possible by this monetary technique. Today it is through the credit channel that the quantity of additional money is created from scratch by the banks. Schumpeter has adequately shown how this money made available to the entrepreneurs made it possible to expand production.

But even this service rendered by the banking system, which is not "passive" in this sense, is not "fundamental". Indeed it is only when the investment creates its market that the advance can be repaid. For real and profound reasons, it may be that this does not happen, and in this case the issue of money does not solve the absence of a market for the extra production.

Hence the monetary system performs a delicate function: it seeks to contain the "expectations" of entrepreneurs within a "reasonable" limit, it calculates the chances of a dynamic equilibrium. Thus it performs the function of the planner who tries to maintain the dynamic sectorial equilibria. This is why the capitalist mode invented, from the start, the centralization of credit. Credit already existed before capitalism; but capitalism organized the centralization of banking, generalized the use of deposit money, and instituted a centralized system of note issue at the national level. It is no accident that the only centralized sector in the capitalist sector by the 19th century was precisely the monetary sector: this was an essential requirement of accumulation.

The conditions of operation of the contemporary monetary system: creeping inflation

Inflation and price rises:

The quantity theory assets that only an increase in the volume of money can determine a general rise in prices. The historical facts, hastily examined, seem to justify the quantity theory. Yet the fall in the real cost of gold production owing to discovery of richer mines explains quite correctly the major price movements of the 19th century. After 1914 Aftalion showed that the exchange rate can also determine general price movements. It is now accepted that the cause of a general price rise may be the inelasticity of supply due to some "bottleneck" confronting an expanding aggregate money demand. This situation is frequent in time of war or preparation for war or reconstruction, when the production of consumer goods is limited (or functions in conditions of rising costs) while incomes without counterpart are distributed by the State. It is also argued that the mere struggle in which the social groups engage for their share of the national income may, under certain conditions when the machinery of competition is not functioning properly, create a climate of general price rise. In all the examples the monetary expansion follows - and does not precede the rise in prices.

Under these conditions, perhaps with a view to seeming to break with the quantity theory, the only case which formerly preoccupied the economists has come to be forgotten: the case where the money issue, exceeding the volume of the needs, gluts the channels of circulation and brings about a rise in prices. This is the only case which deserves to be called inflation, because the price rise is of monetary origin as opposed to the other cases of price rises whose origin is not monetary.

Under these circumstances it can be seen that inflation is impossible in the context of convertibility into gold. There may well be general price rises as a result of a fall in the relative cost of gold production (in case of war and shortage for example), but it is not conceivable that there can be a glutting of the channels of circulation. Indeed, credit are granted by the banking system on public demand. These credits are used to finance new investments, or the latter create their market and the borrowers can repay the bankers (and in this case there is no price rise because production is increased in the same proportion as the distributed income), or else they do not create a market and there is a depression. To the extent that the bank does not want to suspend convertibility, it will refuse to grant loans beyond a certain limit, because it knows that, for genuine reasons of imbalance between production and consumption, beyond a certain point the new investment can no longer create its own market, even if the borrower is willing to pay a high rate of interest.

As for gold, it cannot glut the channels of circulation. If the rate of production of gold accelerates, either the Central Bank which buys this gold at a fixed price sees its reserves increase - without its credits increasing because of it - or the hoarders buy this gold to satisfy their need. In any case the gold is injected into the circuit by the producers who sell it.

Therefore there is not, in this case, any inflation although there are general price movements (notably during the trade cycle). This is no longer the case when convertibility is abolished.

Monopolies, abolition of convertibility and creeping inflation:

Basically it was the changes in the conditions of competition which altered the pace of the general movement of prices. In the 19th century, to the extent that competition was the rule and monopoly the exception, an entrepreneur could not raise his prices, because he would have lost his customers. Under those conditions the banks could not issue "too much credit" because 1) the entrepreneurs, not envisaging a price rise, did not need extra liquidity and 2) the Central Bank, anxious to safeguard convertibility, prevented the commercial banks from granting loans beyond the need for liquidity. Thus convertibility could only be suspended in exceptional cases, that of war for example, when the State issued purchasing power in paper money without a real equivalent.

More than that, competition, by generalizing the new techniques, gave rise to a fall in real costs which was to be reflected in a secular downward trend. This clearly marked tendency was counterbalanced by surges of general rise, usually of shorter duration, which were themselves explained by sudden falls in the cost of gold production. If we examine the curve of wholesale prices from 1800 to 1900, we do not distinguish any "long cycle" such as Kondratieff brought out by clever statistical manipulations. This does not at all mean that at certain periods, more frequently interspersed by wars, a certain upward price trend, due in particular to the rise in real costs which such a situation usually engenders, did not occur to offset the general downward trend which constitutes the background of the whole century. At other times, on the contrary, a strong wave of innovations accelerated the downward trend. It is a historical explanation which accounts for the periods of price rise, not a general quantity-theory explanation.

In the 20th century the conditions are changed: monopolies dominate the essential branches of production. Now, the monopolies are not forced to lower their prices, competition operates **differently.** Hence it was the resistance of prices to a fall, in the new structural conditions, which made a failure of the return to the gold standard after the first world war. The first wave of difficulties was finally to do away with convertibility into gold.

Henceforth there is no longer any barrier to stop the rise in prices. Does this mean that the rise will be continuous? No, because if the entrepreneurs want to increase prices they must apply to the banks for the latter to increase the volume of credit granted to them. Convertibility having been abolished, the Central Bank can accept or refuse to follow that policy. In this limited sense the control of money and credit has become a reality unknown in the previous century.

But in the case where the central bank agrees to comply with the entrepreneurs' wishes, will the price rise be indefinite? We may wonder why the monopolies do not want to increase prices constantly? Why has not the rise been continuous since 1914? Why do periods of price stabilization succeed periods of sharp rise (apart, of course, from periods when the rise must be attributed to real causes: rise in production costs, disproportion between the money incomes distributed and production, engendered for example by war)? The reason why the rise in prices is not indefinite is because there is a level of real wages which ensures that output is marketed at a price at which the profit is maximum. In the last century the wage was a datum like price, over which the entrepreneur isolated from his competitors had no control. Today it is different: the monopolist tries to act on the two data which were formerly independent. Insofar as the workers

refuse to have their real income reduced to be adjusted to this level, "wage-push" inflation is inevitable. But to whom should we ascribe the responsibility for the price rise? To the workers who refuse to have their wages adjusted to the most suitable level for the entrepreneurs? Or to the entrepreneurs who refuse to adjust their profits to the wage level accepted by the workers?

Thus the class struggle for the division of income takes place today in a context which institutionalized the confrontation between the monopolies and the trade unions. Insofar as the working class accepts the "rules of the game", i.e. the ideology of social-democracy, the adjustment of the real wage to a certain level (which as we have seen was objectively necessary to ensure the equilibrium of self-centred growth) becomes the object of a social contract. This adjustment is obtained by regular increases in the nominal wage. If these increases are too large, but only in that case, they will induce price rises. Thus "creeping inflation" will be the manifestation of the fundamental laws of equilibrium of self-centred growth in our time: continuous creeping inflation which will be interspersed with periods of open inflation, when the social contract in question is difficult to obtain. The system of course requires the abolition of convertibility into gold and the readjustment of the external value of gold when the rates of inflation have been higher than they are abroad.

IV

The form of self-centered accumulation: from the trade cycle to period fluctuations

The fluctuations of the economic situation (whether they take the form of a regular cyclical process as was the case up to the second world war, or not, as has been the case since then) are manifestations of the internal contradition, inherent in the capitalist mode of production, between the capacity to produce and the capacity to consume. This contradiction is continually being overcome by the deepening and widening of the capitalist market. Current economic theory occasionally succeeds in accounting for this dynamics of contradiction (although in the narrow "economistic" terms of the interplay of the "multiplier" and the "accelerator" which conceal the origin of the contradiction) when it manages to rise above the monetary appearances of the phenomena. In this case it goes back to Marx's analysis, but in a mechanistic and simplified version.

The historical law of this inherent contradiction in the capitalist mode of production is that it tends to become worse (as evidenced by the exceptional amplitude of the 1930 depression). But this underlying law does not lead to a "spontaneous catastrophic collapse" of the system, because the latter can always react through the organization of monopolies and state intervention with a view to absorbing the growing surplus. From this point of view the historical conditions within which accumulation on the world scale takes place are essential. The contemporary scientific and technical revolution and the gradual integration of Eastern Europe into the world capitalist system are probably going to change considerably, in the foreseeable future, the conditions of accumulation on the world scale. The extension of capitalism to the periphery, the adjustment of the

structure of the periphery to the requirements of accumulation in the centre (i.e. the forms of "international specialisation" between the centre and the periphery) must also occupy an important place in the analysis of the economic situation.

The cyclical form of accumulation very early became the object of economic study. But since the current economic theory had made a creed of the law of markets, the "cause" of the cycle was sought in money, the psychology of the entrepreneur or the technical conditions of production, i.e. in what have been called the "external" or "independent" variables. This view was necessarily superficial. The actural mechanism of economic dynamics was not grasped. Indeed the result was an unusual profusion of trade cycle "theories". It is true that Malthus, Sismondi and then, and above all, Marx, were three impressove exceptions. But the validity of the law of markets was so little challenged that the Marxist analyses remained misunderstood, misinterpreted and rejected by marginalist criticism without being really examined.

But at the end of last century, Wicksell challenged the dogma of markets by studying the general price movements and defining the reasons for possible disequilibria between aggregate supply and demand. Myrdal in 1930, Keynes in 1928 but especially in 1936, were to pursue this challenge. From then on, the study of the cycle was able to rise above the "psychological" and "monetary" commonplaces and concentrate on a more profound study of the mechanisms for adjusting the saving derived from aggregate income to the investment required by economic growth.

Today it goes without saying that the cycle is revealed by an imbalance between saving and investment, which is merely one form of the more general imbalance between the production capacity and the consumption capacity of society. By the irony of fate, the renovated cycle theory, which indeed adopted certain analyses of Marx,

was worked out during and after the second world war, i.e. just at the time when the mechanism of accumulation was losing its cyclical form. The monopolization of capitalism economies and state intervention, made possible and even necessary by this monopolization wh which characterizes modern capitalism, abolished the regular cyclical form which belonged to the century extending from 1825 to 1940. Fluctuations of the economic situation have taken the place of the spontaneous cycle. At the same time, since government policies relate to the monetary and financial spheres, the theory of economic flucations is an impoverishment in comparison with that of the cycle: there is a return to the money illusions and the empirical pragmatism of "incomes policies".

The arguments of the 40s about "stagnation" and maturity", inspired by Keynes, go in the same direction as the theory of the cycle or of economic fluctuations: They centre on the analysis of the possible imbalance between saving and investment. The depression of 1929 had been so violent that all the purely monetary, psychological or technological theories both of the cycle and of the secular trend were bankrupt. The aim of later theories of growth was to make an in-dept analysis of the dynamic mechanisms by which output, saving, and investment were balanced along an upward secular curve. Owing to the boom of western capitalism after the second world war, these theories of maturity, once again a generation late, were forgotten. The theoretical study of the problems of the dynamic equilibrium of growth in our generation which is not merely that of a profound technical and scientific revolution and of the great changes in political relationships which have characterized the last forty years, is only just beginning.

The historical development of capitalism did not take place along a continuous and regular ascending line, without fluctuations. On the contrary, growth took the shape of a series of cyclical fluctuations along a general rising trend. The possiblity of continuous

growth in a capitalist economy with no "external" market - i.e. external to the capitalist mode of production - was demonstrated by Marx and then by Lenin, against Rosa Luxemburg. The saving out of the income of a first period can be invested and thus create its market during a second period by deepening, without widening, the capitalist market. In this sense the "law of markets" keeps its validity - only a relative validity, indeed, since the capitalist form of development implies that the act of "saving" is dissociated in time from the act of "investing". Credit and the momentary advantage of the conquest of new external markets facilitate the fundamental operation: the real investment of monetary saving. In fact the real saving out of income during the pervious period must be in monetary form before it is investe . Gold production in the 19th century and the banking system today make this prior operation possible.

The main assertion of the "law of markets", that the investment of the saving which has assumed the monetary form through which it must pass, is effected automatically through the finance market, is profoundly mistaken. Investment may create its market, but it may also not succeed in doing so. Indeed a feature of the cycle theory is that it establishes the conditions in which investment no longer succeeds in creating its own market.

Money gives the economic system an unquestionable flexibility. It also gives it the possibility of breaking down because of an imbalance between aggregate supply and demand. Money, by enabling the act of saving to be separated in time from the act of investment, creates the possibliity of crises. Does it therefore have the ultimate responsibility for them? If this were so, it would be necessary to explain why this imbalance is periodic and not chronic, why it is periodically overcome, above all, why the cyclical phenomenon is inherent only in the capitalist mode of production and not in the other modes of production which use money such as the simple

commodity economy. Hence if the cycle is "monetary" in the capitalist mode of production, it is so just as much, and no more, than all the other economic phenomena. That is why all the cycle theories based on the study of credit mechanisms attack the problem only superficially. This is because money does not play an "active" role in exchange : the market must exist, money alone cannot create it. All it can do is to facilitate a transition in time. Therefore all serious modern theories have finally adhered to the view that the cycle was the specific form of development by which the regular imbalance between saving and investment is regularly overcome, a view which was that of Marx's analysis.

- The "pure theory" of the cycle: the money illusion:

Keynesian analysis has been called "metastatic". In the "General Theory" the volume of investment determines - through the multiplier - the level of national income. The volume of this investment itself depends on two independent variables: firstly the rate of interest and secondly the marginal efficiency of capital. There is no reaction of income on investment, or rather investment is only proportional to income, not to its increment. The result is that the equilibrium which is established at the level of the national income where saving and investment are equal is a stable equilibrium.

In actual fact, the "General Theory" does contain an outline of a cycle theory. The drastic drop in the marginal efficiency of capital is accompanied by a rise in the rate of interest, because it leads to an increase in liquidity preference. Investment suddenly collapses, and with it, aggregate demand: the national income contracts until the point is reached where the saving out of this income no longer exceeds the reduced investment. This Keynesian analysis did not improve the cycle theory because the drastic drop in the marginal efficiency of capital remained unexplained.

Keynes turned to human psychology which implies the impossibility of indefinitely optimistic expectations as to the future productivity of capital. But it is obvious that if no objective reason were to weaken the level of this productivity at a certain moment of development, expectations would always conform to their real state of things. At most, accidental "historical" causes might from time to time culminate in a countraction of aggregate income. But the regularity of the cycle requires an explanation whose roots lie deep in the machinery of economic dynamics itself, and not an "external" explanation of the phenomenon.

Abandoning the Keynesian assumption of stable values of the propensities to save and invest, Kaldor, Kalecki and others have constructed models which account for the possible generation of flucluations in aggregate income. However, Harrod is perhaps the writer who has made the best analysis so far of the interaction of all the factors which link the national income to investment and vice versa. The imbalance in economic growth stems from the fundamental discrepancy between actual saving which depends essentially on the level of real income and desired saving which depends essentially on the rate of increase of real income. In the "Trade Cycle" Harrod has specifically constructed a cycle model in which the multiplier and the accelerator operate in this way : an initial investment gives rise to an increase in national income which itself determines a secondary investment (acceleration). The boom continues until the multiplier has decreased in size sufficiently to reduce the action of the accelerator to zero. This is indeed what happens during a boom because the propensity to consume dimishes as income increases, since the share of profits increases more rapidly than that of wages.

Harrod is thus the writer who came closest to Marx. There is no special chapter in "Capital" bringing together all the ingredients of a cycle theory; but Marx revealed its essential movement by studying

the phenomena which are today called "multiplier" and "accelerator". In chapter 21 of Book II of Capital, Marx showed that it was possible for investment - through the widening and deepening of capitalism - to create its own market. But in the same chapter he analysed the mechanisms by which what is today called the "propensity to save" was related to aggregate income. As aggregate income rises, the share of profits which is the income essentially destined for saving and investment, increases in proportion. This phenomenon corresponds perfectly to the decrease of the multiplier in Harrod. The multiplier is in fact nothing other than the relation between investment and that part of income, the distribution of which is related to it, which is spent (hence total income minus saved income). When the volume of national income increases, since the share of profits rises faster than that of wages, the amount of spending engendered by a given investment decreases. If Marx considered that this decrease in the multiplier (in Marx this is expressed in the form of a discrepancy between the incomes spent, source of final demand, and the production supplied, source of this income distribution) did not block development from the beginning, it is because he had previously analysed what has since been called the accelerator.

Studying the replacement of fixed capital, he had suggested that an increase in final demand could, under certain conditions (those obtaining at the end of the depression) generate a spate of investment which in its turn would give rise, through the income distribution it entailed, to new possibilities of investment in fixed capital. But Marx immediately disputed that this phenomenon of the replacement of fixed captial, similar to the accelerator, owned its existence to the technical requirements of production : the need to build machinery which will last long enough to cope with an increase, even if temporary, in final production. He attributed this phenomenon to the most essential laws of the capitalist mode of production. An increase in demand, however slight, due to

the opening up of a new market (domestic market in the case of a demand related to technical progress, or external market) at the end of the depression, restores the prospect of profitability of a fixed capital investment. Then all the hoarded saving suddenly flows to it. The new production generates an income distribution which makes this investment actually profitable. Marx thought that in a planned economy these constraints of technology would be reflected in fluctuations of the reserve of stocks but that they would in no way determine the level of investment, freed from its dependence on immediate profitability.

Marx's analysis is actually more complex because, besides the analysis of the "multiplier-accelerator" antinomy, it deals with the secondary problem of the cyclical fluctuations of wages, and because it is grafted on the theory of the tendency of the rate of profit to fall. During the boom the volume of unemployment is reduced, and the real wage rises; a more intensive use of machinery is then made. During the depression an opposite movement takes place. These two mechanisms accentuate both the duration of the depression and that of the boom. Dobb attributes to this phenomenon studied in Book I of Capital an importance which, in our view, betrays Marx's thinking. Furthermore the tendency for the rate of profit to fall is revealed through the cycle. At the beginning of the boom the "counter-tendencies" gain over the general trend. At the end of this period the counter-tendencies are exhausted: the increase in the rate of surplus value, which conceals the effect of the organic composition, stops. The rate of profit collapses. But while this law is revealed through the cylce, it is not the "cause" of the cycle which lies in the interplay of the evolution of the capacity to consume which does not increase as much as the capacity to produce (because of the increasing share of profit in income) and the immediate prospect of profitability which guides investment and which, through the accelerator, delays the adverse effect of the decrease of the multiplier.

If, then, Harrod in his study of the cycle hit upon this description which seems perfectly correct, it is because he departed from Keynesian analysis on an essential point. Harrod related the propensity to invest directly to income without going through the dual intermediary of the marginal efficiency of capital and the rate of interest. He thus took as the starting-point of his construction only the discrepancy between the capacity to produce (related to the saving derived from previous output) and the capacity to consume (related to the distribution engendered by the output). He completely neglects interest, which he regards - with great common sense - as unable to influence investment seriously. He also leaves out the psychological phenomena, regarded also with great common sense as dependent and not independent variables.

Hicks, a post-Keynesian like Harrod but at the same time much more attached to the traditional rate of interest, tried to establish a bridge between Harrod's analysis based on the mechanism which relates the propensity to invest to aggregate income and the Keynesian analysis based on the interest - marginal efficiency of capital paradox. According to him, a fall in the rate of interest (if the marginal efficiency of capital remains stable) entails an increase in investment and hence in income. But an increase in income increases the volume of money required for transactions. If the supply of money remains fixed and if liquidity preference remains the same, the increase in the demand for money for transactions entails in its turn a rise in the interest level. The development of these mechanisms in time, illustrated by the two curves of liquidity and the saving-investment equality, is nothing other than the cycle.

Have we not fallen back into the utopia of Hawtrey? A sufficient injection of money, side by side with an increase in income, would apparently - bearing in mind the stable level of liquidity preference - satisfy the growing need for money for transactions without a rise in the rate of interest. The boom would be continuous, unless of course

the marginal efficiency of capital collapses, which would then have to be explained, as Harrod and Marx did, solely by an imbalance between the capacity to produce and the capacity to consume.

Of course Hicks subscribes to the "Keynesian assumption" that the point has been reached where, however much money is injected, the rate of interest is already at such a low level that it cannot fall below it. Then no monetary measure can avoid the depression. This analysis is incapable of explaining the cycle in the most general case: that of the 19th century when the average rate of interest was at a higher level than today. One could always turn back to the marginal efficiency of capital: the cycle would then be generated by the independent movement of this variable - the level of interest remaining relatively stable at its lowest point throughout the process. Here we would fall again into the same difficulty from which we started: the origin of the sinusoidal "psychological" movement?

THE SECULAR TREND: THE "MATURITY" THEORY AND THAT OF THE SURPLUS OF CONTEMPORARY MONOPOLY CAPITALSIM: FROM THE TRADE CYCLE TO PERIODIC FLUCTUATIONS

For a century the cycle was the necessary form assumed by the development of capitalism. The cyclical imbalance between investment and saving is required by the very mechanism of growth, by the actual functioning of the accumulation of saving which periodically becomes too abundant for the investment possibilities. The acutal result of cyclical development constitutes growth. There is no superimposing of two phenomena of a different kind, the cycle on the one hand and the secular trend on the other. The construction of a "pure" cyclical model, in which the end situation would be exactly the same as the beginning situation, is a mere intellectual exercise. The staring-point of the movement - a drastic investment in fixed capital - is impossible to understand outside the context of technical progress.

Failing the opening of an external market, only the use of new techniques will enable the expansion of the market. Indeed, the conquest of an external market does not solve the imbalance between supply and demand on the world scale. To explain world-wide recovery we must analyse the effects of the application of new techniques. In a depression period the slump is an intense motive for technical improvement, for the firm which takes the initiative of innovating regains its lost profitability. The new method becomes generalized and, as progress is usually manifested in the more intense use of capital equipment, a new demand arises. Production gets under way again thanks to the drastic investment required by the production and installation of new equipment. The resulting development takes the cyclical form; but at the end of the movement the national income is at a higher level than at the start. Something new has occurred: a new technique has been generated. Consequently the volume of production has increased. The capitalist market is constantly expanding precisely by this means. The cycle is therefore necessarily moving along a rising trend. A "stationary" capitalism is a mere intellectual exercise.

However, irrespective of the mechanism of cyclical imbalance between saving and investment, there are real causes which tend to make these two aggregates more or less easily "adjustable" in the long term. In this sense the secular trend retains an autonomous reality, although the latter is not revealed apart from the cycle. If the imbalance between saving and investment becomes chronic, this is reflected, during the cycle, by a shorter boom period. If on the other hand the equilibrium becomes easier to achieve for the real reasons whose existence has been mentioned, this, on the contrary is reflected during the cycle by a shorter depression and a longer boom.

What are then the real reasons which make the equilibrim between saving and investment more or less easy? There was much talk, in the years following the great depression, of "chronic stagnation", of

"maturity" of capitalism. Kenynes then discovered the possibility of a chronic under-employment. In fact the analysis of maturity from the Keynesian angle is ultimately located in the monetary sphere. We cannot accept the argument of the blocking of growth by purely monetary reasons. Under the circumstances must we recognize that after Ricardo and Marx the study of the future of capitalism was abandoned irrevocably? Ricardo thought he could prophesy "a stationary era", on the basis of diminishing returns operating on the histrocial scale. Any conception of a stationary state is totally alien to Marxism. The law of the tendency of the rate of profit to fall only means that the contradiction between the capacity to produce and the capacity to consume must necessarily become continually worse and deeper. The ultimate reason for all aggregate disequilibrium remains the contradiction between the division of income between wages and profits on the one hand (and hence the division of income between consumption and saving) and the division of production between the production of capital goods and consumer goods on the other. A certain volume of final production requires a given volume of intermediate production. The latter quantity is, from a particular angle, nothing other than the volume of investment required to produce the desired volume of final goods. When Harrod abandons the monetary analyses of the rate of interest and the psychological analyses of the marginal efficiency of capital and concentrates directly, on the one hand, on the "capital coefficient" (the ratio measuring the capital - intensity of output, i.e. precisely the ratio between the production of capital goods and that of final goods), and on the other hand on the division of aggregate income between consumption and saving, he comes singularly close to the analysis of Marx.

In the 19th century the youth of capitalism and the vast opportunities offered by the disintegration of the precapitalist economies were reflected in a trend favourable to the adjustment of saving and investment. The depressions were then less deep and less long that that of the 30s. But at the very moment when the "maturity" theory was predicting the "end of capitalism" and "permanent stagnation"; at the very moment when a simplified version

of Marxism was taking up (under the theme of the "general crisis of capitalism") an apocalyptic vision alien to Marxism, the rate of growth of Western capitalism was accelerating and, moreover, the cyclical form of growth was disappearing.

The renewed Marxist analysis was the only answer to this evolution; it was inaugurated by Baran and Sweezy who analysed in new terms the "law of the rising surplus" and the forms of absorption of this surplus. At the same time, indeed, the theory of monopoly capitalism explained the disappearance of the cycle. The cycle cannot be explained other than by the inability of capitalism to "plan" investment. But monopoly capitalism can do so in a certain sense and within certain limits, with the active help of the state. As soon as capitalism has escaped the uncontrolled effects of acceleration, there is no longer a cycle but only a series of fluctuations which are closely watched and which are attenuated by the action of the State and, the monopolies (the State acting in the interests of the monopolies).

We might wonder why it was only after the second world war that the cycle in its classical form disappeared giving place to periodic oscillations which came at short intervals, were irregular and of less amplitude, whereas the monopolies were constituted at the end of last century; why the depression of the 30s was the most violent in the history of capitalism when the monopolies were already constituted, if monopoly capitalism can "plan" investment better than competitive capitalism. We think that the answer must be sought in the functioning of the international system. Monopolies can indeed "plan" investment up to a certain point provided, as we have seen, that the monetary system is conducive to it, which assumes that convertibility into gold is abandoned and that the monetary authorities, as well as all State economic policy, operate in this direction. The "concerted economy" -western planning -

merely reflects awareness of this new possibility. But not only did this awareness, like any other, lag behind reality, but, and above all, the context in which it operated was a national one. The international system remained, long after the constitution of monopolies, governed by "automatic mechanisms". Thus on the international plane no "concertation" is possible. The effort made by Great Britain (and France), after the 1914-18 war, to restore the gold standard in external relations, where as internally it was definitively abandoned, reflects this hiatus between the internal order and the international order. By making practically impossible any concerted domestic policy, the automatic international mechanisms are in our view largely responsible for the exceptional gravity of the depression of the 30s. The monopolies, which make possible counter-cyclical national economic policy, are also responsible for the fact that the cycle must become worse if this policy is not practised. Keynes understood this perfectly. The maintenance of external controls after the second world war made effective national economic policies possible for the first time; this is when, for example, "concerted French planning" began. The later boom and the Common Market, the liberalization of external relations which accompanied this boom, seriously threatened the efficiency of these policies. That is why the issue of an international order is again on the agenda. But the "order" set up after the war, symbolized by the I.M.F., is not an order, since it is still based on confidence in automatic mechanisms. This "confindence" operates in favour of the strongest: the United States. That is why, in our view, a world economic policy is almost impossible. This defect in the system reflects a new contradiction, which has now matured, between the requirements of economic order, which can no longer be obtained by virtue of national economic policy alone (because capitalism hence forth has an essentially world-wide dimension) and the still national character of institutions and structures. If this contradiction is not vercome, we cannot exclude the possibility of extremely serious "accedental fluctuations" (accidents conjoncturels), as is indeed shown by the present monetary crisis.

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International relations and the interrelation of the national formations of central capitalism

The analysis of the capitalist mode of production has been conducted so far within a theoretical framework which ignored the existence of different mature capitalist nations. We must now examine the interrelation between the different national formations which constituted the original context of the genesis of capitalism and which still exist as autonomous units integrated into a world system.

As we have seen, the national framework defines the space within which the "social contract" makes possible a self-centred capitalist development. The purpose of this section is to analyse how the contradictions between the national character of the mechanisms of accumulation and the world character of the system are resolved. The world system is composed of a centre, itself plurinational, and a dependent periphery. We will confine ourselves here to analysing the articulation between the central national formations, reserving for the following chapters the articulation which defines the - asymmetrical - centre/periphery relations. Conventional economic theory was virtually only concerned with analysing the international relations between mature capitalist nations. It was only after the second world war that this theory envisaged the problems of the centre/periphery international relations - in an extremely superficial way, indeed - by extending to this new field of study the so-called "laws" explaining the international relations between developed countries. Here as elsewhere, the search for a historical "laws", independent of economic systems, conceals the ideological nature of conventional economic "science". Hence the criticisms of this theory constitutes the starting-point of our analysis.

The so-called mechanisms which are said to ensure an automatic external equilibrium are like the "law of markets": an empty tautology or a false theory. The assertion of the existence of these mechanisms (price-effect, foreign exchange effect, foreign trade multiplier) is indeed based on a false monetary theory (the quantity theory) and on a short-sighted analysis of "elasticities" and "propensities" which implicitly assumes what it seeks to demonstrate. In this way current economic theory evades the real problem, which is why the "elasticities" and "propensities" are what they are, why they are different in the centre and the periphery, and how they evolve. We cannot help seeing in this trend of current economic theory a defense (here as in the case of "law of markets") of the ideology of universal harmonies. As in the case of the law of markets, we can only speak here of a general tendency to equilibrium. Contemporary theory gets more bogged down every day in a series of false problems or in the search for impossible answers to badly stated problems (because the proponents do not want to go beyond empiricism) and it refuses to see the essential. What is essential is that the equilibrium of the balance of payments - which is at best only a trend - is conditional upon a permanent adjustment of the international structures. Now, these structures (as regards the relations between the developed world and the "underdeveloped" world) are those of the asymmetrical domination of the centre of the world system over the periphery. The external equilibrium - the international order - is only possible because the structures of the periphery are shaped in accordance with the requirements of accumulation at the centre. In other words, equilibrium is not possible unless the development of the centre generates and maintains the under-development of the periphery. This refusal to see the essential betrays the ideological nature of current economic theory, its whole construction being based on the religious postulate of a universal harmony which cannot be questioned, hence scientifically criticized.

Can a momentary deficit in a country's balance of accounts, whether its cause is temporary or structural, be absorbed by acting on the exchange rate level if approporiate, or on prices and economic activity otherwise? Economic theory again answers this question in the affirmative.

A. Smith introduced only the price mechanism in the construction of the international equilibrium. He took over the very old merchantilist tradition of Bodiu, Petty, Locke and Cautillon who in their time had noted that the disequilibrium of the balance of trade was offset by the movement of gold. He also adopted the quantity theory tradition which asserted that the movement of gold determined in its turn that of the general level of prices. In that case the disequilibrium should be absorbed automatically. There was only a step between that and asserting that the only possible cause of the external imbalance was "domestic inflation", and this step was taken by the Bullionists at the beginning of the 19th century under the leadership of Ricardo. Although the arguments of Bosanquet who attributed the disequilibrium of the balance to non-monetary causes (the difficulties of exporting due to the war together with the payment of subsidies abroad) had very grrat logical force, they did not convince his cotemporaries. was like the controversy on quantity theory which occurred a little later between Tooke and Ricardo. The Ricardian theory was destroyed with out anything positive being proposed in its place.

It was Wicksell who, at the end of the 19th century, highlighted the role of changes in demand in the mechanism of international equilibrium. The deficit of the balance is analysed as a transfer of purchasing power. This extra purchasing power will enable the foreigner to increase his imports sooner or later, while the deficit country will have to reduce its own imports. International equilibrium is attained with no price changes. This profoundly

revolutionary contribution was taken over by Ohlin who claimed on that basis, that the German reparations could be paid. We can see, however, how strong the classical theory of price effects (related to the quantity theory) still was, since as eminent a mind as Keynes refused to abandon the old viewpoint. The reason why he claimed that Germany could not pay reparations was solely because he thought that the interplay of the price elasticities of German exports and imports would entail a "perverse" effect rather than a "normal" effect. It was a long time before the income angle became dominant. It was not Keynes himself, but only the post-Keynesians who introduced into the theory of international equilibrium the essentials of the method inaugurated by Bosauquet and taken up by Wicksell and by Ohlin.

The two angles, price and income, are often presented as mutually exclusive. Yet they are unquestionally two aspects of the same phenomenon: demand. Does demand depend on prices or on income? The whole construction of Walras' general equilibrium is based on the law of supply and demand. It was with the intention of replacing the labour theory of value by the utility theory of value that the first analysis of the market, Say in particular, put forward the law of demand. The responses of demand and supply to price variations are then explained by the diminishing marginal utility of goods. Equilibrium is obtained without any intervention of elements alien to these responses. This construction remained very fragile since Say and Walras ignored the fundamental element of demand, which is income. They made the law of supply and demand Say more than can explain. The law of diminishing utility of goods may well explain why demand falls when the prices rises, but this is on condition that the level of incomes remains unchanged. Now, in the general equilibrium theory, the distribution of incomes is a function of the relative prices of goods. Any change in prices changes incomes. Subsequently, period analysis was resorted to in order to break this marginalist vicious circle.

Today's prices depend on yesterday's incomes and the latter depend on the prices of the day before yesterday. This recourse to history is a real theoretical capitualation, the admission of the fundamental impotence of marginalism.

Now, the analyses of the price-elasticities of foreign trade are of the some nature as the former analyses of supply and demand. They assume the national incomes of the trading partners to be stable and thereby less all explanatory value as regards the real movements of international trade.

The introduction of the responses of supply and demand to the variations of income in general and of the responses of foreign trade to variations of the national income in particular was thus a genuine revolution. But we must stress the descriptive nature of these studies: it is noted that, the level of the respective incomes in a given period being so much, the level of trade in a given product is so much. It is noted that at a later period the incomes, the prices and the quantities exchanged are different. This enables the changes to be discribed but not explained.

The classical theory of price effects

This theory was formulated at the beginning of the 19th century in the context of assumptions corresponding to the reality of that time (gold standard) and on the basis of the quantity theory of money. Since any importer has a choice between buying foreign exchange (foreign gold coin) and sending gold abroad (in the form of ingots) the deficit of the balance of accounts cannot devalue the national currency to an extent sufficient to act on the terms of trade and promote exports. Hence the imbalance can only be refected ultimately in an outflow of gold. The general fall in domestic prices following this outflow (and hence in export prices) as compared with the stability of foreign prices (and hence of import prices), discourages imports and favours exports and enables the equilibrium to be restored. It is the deterioration of the terms of trade which restores the equilibrium.

Only recently has it been realized that a change in the terms of trade which, on one side, was favourable (or unfavourable) to expoxts, lowered (or raised) their unit price. The rise or fall of domestic prices can improve or worsen the state of the balance according to the level of the elasticities. The same applies, in the opposite direction, to imports. The analysis of the effects of different combinations of elasticities is commonplace today. The best formulation is that of J. Robinson who takes account of four elasticities: that of the national export supply, that of the foreign import supply, that of the national import demand, and that of the foreign export demand. To be fair, it should be recalled that Nogaro, long before the Keynesian economists, had seriously criticized the exchange rate theory of Augustin Cournot. This theory presupposed what was to be demonstrated: that price elasticities are such that devaluation enables the deficit to be absorbed.

If the economy is perfectly integrated, a change in import prices should entail a proportional change in all domestic prices and hence in the price of exports. Should not the relatively higher prices of imports cause all prices to rise? Aftalion showed that the exchange rate level itself acted in some cases on domestic prices. It must not be thought that the exchange rate only acts on the prices of imported goods through variations in cost and that devaluation only acts ultimately on the prices of other goods insofar as imported goods enter into their manufacture. Aftalion showed by some historical examples that the exchange rate sometimes acts on all prices through the increase in money incomes. Will the effect of a change in the exchange rate on the income of importers with respect to goods already in the warehouse and previously paid for, on the income of holders of foreign securities and on the income of exporters and producers for export, always be able to determine a general rise or fall in prices proportional

to the variations in the exchange rate? If this effect is strong enough, if the fluctuations in money income are not offset by fluctuations in hoarding, and lastly, if all the money income passes through the market, this will probably be so. In this case, after devaluation has exhausted its effects, the foreign balance will be exactly similar to what it was before that devaluation. Chronic disequilibrium, temporarily absorbed, reappears. There is no tendency towards a long-term equalibrium. There are many examples of this mechanism in history, particularly in the monetary history of Latin America. In the 19th century there was a series of devaluations. These devaluations were inoperative in the long run because they were followed by a general and proportional rise in prices. These experiences show that it is impossible to resolve a real disequilibrium in the external balance which in basically due to profound structural maladjustments, by monetary manipulations. These experiences also prove that the internal and external value of a currency cannot be different over a long period. Despite the actual existence of domestic goods which do not enter into international trade, the "domestic"sector is ultimately affected by foreign prices. This influence operates through incomes. More recent experiences largely confirm our arguments. As an example, the devaluation of the Malian franc in 1967, which according to the French experts was supposed to restore Mali's balance, culminated in a proportional and almost immediate rise in all prices, despite the wage freeze. This is an extreme example showing how the pattern of the dominant prices is imposed on the dominated economy, which merits reflextion.

True, a <u>contrario</u>, in 19th century European history, the gold standard and the compensatory monetary policy of manipulating the discount rates, were effective. But is not the reason for this simply that in the long term the balance of accounts was in equilibrium? Because the imbalances were never more than momentary (fluctuations in the economic situation)?

The theory of the exchange rate effect

Assuming inconvertible currencies, does not the existence of an exchange rate capable of wide variations according to the state of the balance of accounts boil down to the price effect without the intervention of quantity theory? In this case, in fact, the change in the exchange rate entails a change in the price of imports, but there is no reason why the prices of domestic goods and of exports - which must be the same domestic price - should change. Because the quantity of money remains stable, say the quantity theorists. Because the exchange rate does not always necessarily affect domestic prices, say others.

There again, the analysis must be completed in the same way as before. Firstly, depending on the price-elasticities, the change in the exchange rate may have "normal" or "perverse" effects. Secondly, the price of imports can here again act on the level of domestic prices and hence on that of exports, and in the same way through costs, through the behaviour of the dominant income and through the transmission of prices structures.

Here again, the movement of short-term capital may avoid a change in the exchange rate (and prices) just as it recently avoided the movement of gold (and prices). If the central bank raises the rate of interest, it attracts short-term foreign capital just as a gold system and for the same reason. In the case of a temporary deficit of the balance, it can thus avoid devaluation (and the consequent price rise) just as in a gold system it could avoid the outflow of gold (and the consequent price fall). But this action has the same limitation as before. If the deficit is structural, chronic, and large, the inflow of foreign capital will be unable to neutralize it; especially as the prospects of losing on the exchange rate hardly attracts speculators seeking a profit which is rather low owning to a rise in the rate of interest.

Finally, what can we conclude from the analysis of price effects? Firstly, that there are no price effects but only an exchange rate effect. The disequilibrium of the external balance does not directly affect prices through the quantity of money. This disequilibrium affects the exchange rate, which in turn affects all prices. The result is that changes in the exchange rate, whatever the price elasticities may be, can never solve the difficulties of a structural disequilibrium, since at the end of a given period we are in the same situation as at the start. Secondly, we have to bear in mind that - even in a transitory period - fluctuations in the exchange rate do not necessarily improve the position of the foreign balance, because of the existence of critical price-elasticities.

We must remember that, in the countries of the periphery, the elasticity of demand for imports is low because of possible substitution between local production and foreign production; that the greater the international integration of these countries, the more important are the exporters' incomes; that added to the effect of these incomes on demand there are decisive psychological considerations which relate the internal value of the currency to its external value; and that there is a mechanism transmitting the dominant price structure to the dominated economy, hence we can conclude that in nine cases out of ten devaluation by no means resolves the chronic disequilibrium of the balance of payments, either in the short term or a fortiori, in the long term, but that this devaluation will worsen the external situation in the short term.

The theory of the income effect

In Wicksell and Ohlin the mechanism of the income effect was presented in a very simple form. The deficit of the foreign balance is, as we know, settled by a transfer of purchasing power abroad. This new purchasing power must enable the economy receiving it to import more. Furthermore this transfer forces the

country in deficit to reduce its demand, particularly its import demand. As to the transfer of gold in the gold standard system, it serves as a support to the transfer of purchasing power, and no more. Obviously if we assume that convertibility has been abandoned and that exchange rates are flexible, the imbalance which is the transfer of purchasing power on one side acts on the other side on the exchange rate. These secondary effects of the imbalance on the exchange rate may hinder the mechanism of re-equilibrium by, for example, offsetting the transfer of purchasing power through a rise in prices. But essentially the mechanism remains of the same nature as before.

The great superiority of Ohlin's theory over the old theory is that it explains the restoration of the balance whatever the trend in the terms of trade. In the classical theory it is the change in terms in a definite direction which restores the equilibrium. Yet experience has many times proved that re-equilibrium has occurred despite an adverse trend in the terms of trade. The theory of the transfer of purchasing power also has the merit of highlighting the purely "trend" nature of the re-equilibrium. It is highly uncertain whether the effect of an increase in purchasing power subsequent to a surplus of the balance will fall entirely on the demand for imports.

Keynesian thinking, by putting in the foreground the multiplier effects of a primary increase in income, was to finalize the theory. This was the work of the post-Keynesians, particularly Machlup and Metzler. Reduced to its simplest expression, the machanism is the following: a surplus of the foreign balance behaves like an autonomous demand: through the operation of the multiplier mechanism, it gives rise to a larger increase in the national income which, given the propensity to import, makes possible the readjustment of the foreign balance. Conversely, a negative foreign balance gives rise to a contraction of aggregate income which makes it possible to reduce imports, thus helping to restore the balance.

The models proposed by Machlup and Metzler take account both of the effects of variations in the balance of country A on country B and the reciprocal effects of the balance of B on that of A. Let us immediately note a very interesting case: that in which the contractions of the national incomes of the "payer" and "receiver" are such that the indebted country is unable to settle its debt. Thus the possibility of international equilibrium depends on the propensities to consume and invest in the two countries. This "case" is particularly interesting because it ought to have put a finger on the problem: it shows that the equilibrium of the external balance only reflects a structural adjustment of the economies concerned, whose requirements it highlights. The question of what the various "propensities" are, the reasons for their stability and for the changes which affects them, is not a question of "empirical fact" but a fundamental question of theory. What is meant by the structural adjustment which conditions the equilibrium of foreign payments? This adjustment is expressed precisely in changes in the propensities, particularly the propensity to import. Hence, we are by no means entitled to imagine arbitrarily any particular "models". This empercist attitude is of no use because we have to know how and why the propensities change.

Rejecting the multiplier analysis, modern writers have usually gone back to the traditional price effect, at least with respect to the underdeveloped countries, During a depression export prices collapse, even if the local currency is still sound (in the case of monetary integration for example). Must we then believe that the underdeveloped countries prove the possibility of a direct price effect? That in these countries the fluctuations of the balance of payments involve price fluctuations through the international movements of money? In fact this is not so. Prices fluctuate according to demand both in the underdeveloped and in the developed countries. If the export prices of the underdeveloped countries

collapse, for example during a depression, it is not because of the deficit in the foreign balance, but because of the drop in the demand for these goods, which is essentially foreign demand. The volume and the price of exports collapse simultaneously and for the same reason. The deficit of the balance is by no means a cause of this collapse. On the contrary it is the consequence of it.

Therefore the conclusions we arrive at, as regards the theory of of readjustment of the balance of payments, are entirely negative. Firstly, despite appearances, the "price" effect does not in reality operate in the underdeveloped countries any more than in the developed economies. Secondly, the "exchange rate effect does not tend to bring about re-equilibrium. Frequently the changes in the exchange rate, particularly in the underdeveloped countries, only operate during a temporary period (until the domestic price rise is general and proportional to the fall in the exchange rate) and often in a perverse direction (because of the price elasticities) Thirdly, the "income" effect is only a trend and implies a structural adjustment which is precisely the heart of the problem. So there is no mechinism which automatically restores the equilibrium of the foreign balance. All we can be sure of is that, in general, importing transfers abroad a purchasing power in a specific monetary form. This transfer naturally tends to make a later export possible. This is a very general trend. It is similar to the way in which, in the market economy, any purchase - if other conditions are fulfilled - makes possible a later sale. But just as the existence of this deep trend does not justify the law of markets, similarly it does not justify the construction of a theory of automatic international equilibrium.

Equilibrium rate of exchange or structural adjustment?

The real date characterizing two interrelated economic systems can thus be such that the balance of payments can not be in equilibrium in the context of freely moving exchange rates. Since the automatic mechanisms do not operate, it seems that in this situation there is no "equilibrium" exchange rate. What is in fact called the equilibrium exchange rate would be a rate which would make possible the equilibrium of the balance of payments with no restrictions as to imports or as the "natural" movement of long-term capital. To say that the income-readjusting mechanisms are only a trend means simply to assert that such a rate does not always exist. More specifically, since the exchange mechanisms relate to the short-term and the structural readjustmnet to the long term, there is not always an equilibrium exchange rate, still less a "natural" and "spontaneous" one.

Yet one has the impression that an equilibrium rate existed throughout the 19th century. To be sure, during that century "par value" constituted from a certain point of view the "normal" rate of exchange between two currencies convertible into gold. The buying and selling of gold by banks of issue at a fixed price and and in unlimited quantities contained the exchange fluctuations within the narrow limits of gold points. Convertibility into gold made the world system sound enough to enable the mechanisms of structural adjustment to operate. But this structural adjustment, accepted by the weak and imposed by the strong, has nothing particularly "harmonious" about it; on the contrary it reflects the gradual shaping of a world which has become increasingly unequal.

What happens, on the other hand, if convertibility is suspended? We may wonder what then becomes of the exchange rate theory. Since the exchange rate theory aimed to explain the relationship which exists between the value of two currencies, it is obvious that the

general conception one has of the value of money ultimately determines one's conception of the intrinsic nature of the exchange rate. That is why marginalism, which defined the valve of money as its purchasing power, had led, with respect to the exchange rate to the theory of parity of purchasing power. And just as nargina-lism had led to the quantity theory in the domestic field, it was similarly to lead to an international quantity theory determining an international distribution of gold which was able to ensure the equilibrium of the exchange rates at the level of purchasing power.

In our analysis, in which we reject the quantity theory, we must, when determining the domestic value of a currency, distinguish the case of convertibility from the case of inconvertibiltiy. In the case of convertibility, it is the real cost of gold production which in the last analysis limits the variations in the value of a currency. In that sense, par value constituted the normal rate of exchange. When convertibility is abandoned, as the central bank no longer buys and sells gold in unlimited quantities and at a fixed price, that price itself may become involved in the general upward movement, so that one loses sight of the sequence of mechanisms which then seem perfectly reversible. Just as there is no longer a normal price level, there is no longer a normal rate of exchange. Hence, in the case of incovertibility a structural deficit in the balance of payments makes devaluation necessary. The devaluation of an inconvertible currency generates in its turn a wave of inflation which brings back the former situation. Once again, it is seen that chronic disequilibrium can then no longer be avoided other than by the control of foreign trade and of capital movements, by direct action on the real movements. When the currency has become inconvertible, the system no longer has sufficient solidity to wait until the income effect has been worked through and the equilibrium has been restored. The tendency to disequilibrium entails a permanent instability.

Some economists impose an extra condition on the definition of the equilibrium exchange rate: that of ensuring full employment. Actually the link established between the level of employment and the exchange rate is extremely artificial. It stems from a simplification which is almost a caricature of Keynesian analysis. Thus J. Robinson relates the level of national income mechanically to the rate of interest, so that according to her there is always an interest level which ensures full employment, whereas Keynes had specifically taken pains to show that unemployment could become an insoluable problem. J. Robinson next relates, equally artificially, the international movement of capital to the rate of interest whereas the movements are dictated by the absolute and relative volume of property incomes and the prospects of profitability of investments which are largely independent of fluctuations in the rate of interest. Armed with these mechanistic and artificial relationships, J. Robinson shows how there corresponds to each level of interest (and hence of employment) a level of exchange rate which brings the balance of payments into equilibrium. This way of considering that, in a set of variables, one of them can always be fixed arbitarily because the others then adjust to this arbitrary value, is typical of the method used by the analysts of "general equilibrium". It incurs all the criticisms that can be made of the empiricist method in economics. It is fundamentally formalistic, and denies the existence of profoundly irreversible caused relations.

In reality, such an "equilibrium" exchange level may very well be - and certainly is in the relations between developed and underdeveloped countries - a "domination" exchange rate. To each exchange level there corresponds a certain distribution of relative profitability of investments in the different sectors. But it is not the exchange rate which determines the volume of absorption of foreign captial by the underdeveloped country. Quite the contrary is true: capital flows in to the extent that the developed countries have

available capital and that the "real" general conditions make these foreign investments profitable: and, putting pressure on the balance of payments, it determines an "equilibrium" exchange level, i.e. a level which permits the payment of interest on the capital imported and the payment of the volume of imports determined by the degree of integration of the underdeveloped countries into the international market, i.e. determined by the demand for foreign goods which the volume of exports (related to this degree of integration) allows. In other words, the exchange rate mechanism makes it possible for the structure of the underdeveloped country to be adjusted to that of the dominant country. In this sense, a "better" equilibrium, i.e. one that enables this structure to be modified, requires restrictions on imports. Of course, there again, when the safeguard of the gold standard is suppressed, a temporary change in the conditions of trade or in the movement of capital entails a change in the exchange rate which, by determining a different distribution of the relative profitability of the various sectors of the underdeveloped economy, affects the orientation of the foreign investments and thereby the conditions of domination. But there is still an adjustment of the underdeveloped structure to the developed structure.

2 - The economic theory of the international transmission of economic fluctuations.

The economic theory of the "automatic equilibrium" of the balance of payments is the basis on which conventional economics built up its construct concerning the theory of the international transmission of economic fluctuations.

The first systematization of this construction is due to Haberler, who defends three propositions, basing his distinctions on the monetary systems of the partners involved.

Firstly, in the case where the two countries in contact, A and B, are under the gold standard system, the transmission of fluctuations from one country to the other is perfectly symmetrical. This transmission attenuates the intensity of fluctuations in the original country by extending the area over which the cycle exerts its effects. In a boom period in country A, imports increase more rapidly than exports. This country has to face an outflow of gold which reduces the inflationary trends there while it reinforces them in country B.

Secondly, if on the other hand country B has adopted the system of the foreign exchange standard, the propagation of the cycle no longer operates from the dominated to the dominant country, but it is reinforced in the opposite direction. In a boom period in the monetarily dominated country, that country pays the deficit of its balance of payments in the currency of country A. The volume of credit exerts no stimulus in this dominant country because no transfer of gold - final money - has taken place. On the other hand, the natural development of prosperity in the dominant economy is not checked by an outflow of gold, while on the contrary the inflow of foreign exchange into the dominated country reflects a real increase of credit in that economy.

Thirdly, in the case where both countries use independent controlled currencies, cyclical fluctuations are no longer transmitted. A boom in one of the two economies in contact entails a disequilibrium in the balance of accounts which, since it cannot be readjusted by an outflow of gold or foreign exchange, must be readjusted by a change in the exchange rate. This readjustment reduces excessive imports to the level of possible exports.

Assuredly, this is a narrowly monetaristic analysis. In the 19th century, colonies and mother countries used the same metallic money. Yet the direction of the transmission of the cyclical movement was always the same: from the mother country to the colonies.

With the post-Keynesian school this monetaristic theory of transmission was abandoned. It was then argued that the fluctuations were transmitted, no longer through the flows of gold and of foreign exchange which they generated, but directly through the movements of goods. Cyclical oscillations in one country are in fact reflected in a real movement of exports and imports. Since prosperity in one country entails a greater volume of imports than exports, it directly promotes in the other country the development of "inflationary" trends characteristic of economic euphoria. The deficit of the balance is only settled by foreign loans. No movement of gold or foreign exchange is necessary. No change in the rate of interest occurs. In these circumstances the quantity - theory mechanism does not operate.

This new approach became very popular, thanks to the sophisticated form given to it by the theory of the foreign trade multiplier. The study of C. Clark on the Australian trade cycle is characteristic of this point of view. The theory of the foreign trade multiplier asserts that a positive balance of trade (an export surplus) plays the same role as an automous investment stimulus. It remains descriptive (and not explanatory) and mechanistic. For economic fluctuations do not have a perfectly definite effect on the balance of trade. A boom entails a parellel growth of exports and imports. Its effect on the balance varies - sometimes improvement, sometimes deterioration. While it is true that the balance of payments (and not that of goods) tends to be positive for the developed countries in a period of depression, it is much more because capital exports stop than because of any improvement in the balance of payments. Similarly, for the underdeveloped countries, it is this cessation of the flow of capital and not the deterioration of the balance of trade which causes a negative balance in the foreign accounts. That is why the alternation of a deficit balance and then a surplus depending on the economic situation, which is perfectly obvious in the 20th century, did not occur in the 19th century before the movement of capital became as voluminous as it

has since become. But even at that time, one never saw a boom in Europe leading to a depression overseas owing to the appearance oa a positive European balance ("perverse" but frequent effect). Or vice versa.

3 - The international monetary system and the contemporary crisis.

Our period is characterized by a new and growing contradiction between the world-wide activities of the most decisive firms in economic life (the transnational corporations) and the national character of institutions, particularly monetary institutions in the context of which state economic policies are determined. It is the development of this new contradiction which explains the specific form taken by the crisis of the contemporary system, i.e. its appearance in the monetary field.

The crisis of international liquidity

Since the end of the second world war the international monetary system has been based, as we know, on the use of 3 types of reserves: gold, key currencies (the dollar and the pound sterling) and secondarily other "hard" currencies, and loans granted by the I.M.F. either unconditionally or conditionally.

Between 1951 and 1965 the total volume of international reserves thus defined for the world as a whole (excluding the Comecon, China, Viet-nam, Korea, Albania and Cuba) rose from $49 billion to $70 billion, representing a rate of growth of 2.6% a year. But during this period the international repayments due increased at the rate of 6% a year, thus reducing the reserves from 67% to 43% of imports. After 1965 this movement was accentuated: the volume of international reserves rose to $93 billion in 1970, which no longer represented more than 33% of the volume of world trade.

Is this reduction in the volume of international reserves the origin of the crisis? Not necessarily, at least with respect to the central capitalist countries, and this for 3 main reasons, which are: 1) that the volume of necessary reserves does not depend on the volume of trade but on the balances to be settled; now, in the aftermath of the second world war the pattern of international trade was particularly unbalanced; it is much less so today: moreover in 1913 the monetary reserves - essentially composed of gold - only covered 37% of world imports; 2) that we should not consider solely the stock of international liquidity but also its velocity of circulation, as is done in the domestic monetary field; 3) that procedures have been invented enabling the volume of necessary reserves to be reduced, such as the bilateral swap arrangements. The ceiling of reciprocal credit granted rose from $ .7 billion in 1961 to $16 billion in 1970.

The crisis really originated in the growing imbalance in the distribution of reserves between their different components. Whereas the gold component rose only from $34 billion in 1951 to $42 billion in 1965 and $37 billion in 1970, the dollar component rose from $4.2 billion in 1951 to $14.8 billion in 1965 and $32.8 billion in 1970, representing an annual rate of growth of 9.4% between 1951 and 1965 and 17.5% between 1965 and 1970, i.e. much higher than that of the total reserves. Between 1965 and 1970 the share of hard currencies - mainly dollars - in the international reserves rose from $23.8 billion (33% of total reserves) to $44.5 billion (48% of the total). As for the reserves issued by the I.M.F., the third compound of the system, they remain modest: $1.7 billion in 1951 (3.4% of total reserves). $5.4 billion in 1965 (7.6% of the total) and $10.8 billion in 1970 (11.8% of the total).

The increase in the dollar assets held by the rest of the world gradually reduced the position of the United States, whose gold reserves fell from $24.3 billion in 1951 to $14.7 billion in 1965 and $11.1 billion in 1971. In the face of this reduction the gross

indebtedness of the United States to the rest of the world rose from $8.3 billion in 1951 to $25.2 billion in 1965 and its net indebtedness (U.S. debts to the rest of the world minus its claims on the rest of the world) from $6.9 billion to $13.0 billion. After 1965 the United States position deteriorated at an accelerated pace. Its current foreign liabilities rose from $29 billion in 1965 to $64 billion in 1971, while its short-term claims only rose from $7.7 billion to $13.3 billion between 1965 and 1971. In other words, whereas in 1951 the gold reserves of the United States represented 3.5 times the amount of its net short-term debt, in 1971 these reserves only covered 22% of this external debt.

Thus, through the international monetary system, the United States has a privileged position. Since its national currency is accepted as an international reserve, it does not have to worry about its balance of payments; in other words the deficit of balance of payments is automatically covered by a credit granted to it by the rest of the world.

This asymmetrical operation of the system to the advantage of its North American centre was accepted so long as the United States was in a position of strength with respect to the other developed capitalist countries. Indeed, so long as the North American industrial superiority in all fields - as against Western Europe and Japan under reconstruction - was reflected in a permanent tendency for a surplus in the U.S. balance of payments, the "dollar gap" was general and the system able to function. But since then Europe and Japan have made considerable progress and, in some fields, have become competitive with the United States. Furthermore the United States has embarked upon a world policy of interventions which is beyond its real strength, as can be seen by its military involvement in Viet-Nam. Both these causes have led to a reversal of the United States foreign balance, which is now in deficit. Hence dollars accumulate to the credit of foreigners and, more

seriously, in a far greater amount when the latter wish to hold. Confronted with the U.S. gold reserves, these claims are suddenly seen to be inconvertible, and even probably difficult to recover: confidence in the dollar is shaken and the international monetary system is crumbling.

The analysis of the causes to which the international monetary crisis is attributed and the examination of the solutions advocated by the experts provide particularly instructive lessons. The best Western experts acknowledge that the crisis is not due to an overall insufficiency of the volume of international liquidity, but to the prevailing anarchy in the evolution of the various components of the world reserves. However, they refrain from analysing the significance of this anarchy in terms of conflicts between central nations of the capitalist system, which occur when the balance of power is challenged by the unequal development of the different types of capitalism concerned. Hence the solutions advocated are either ineffective or they are the expression of pious hopes which assume that the conflicts of interest are resolved.

The tendency to a surplus in the U.S. balance of payments after the second world war was not the reflection of a particularly "fortunate" structural equilibrium but that of a disequilibrium over which American domination had been established. The dollar, the universally accepted international reserve currency, expressed this domination. For the last ten years this domination has been challenged by the rapid progress of Europe, particularly Federal Germany, and Japan. The new power relationship is not "more harmonious" than the previous one, but it is different. It too is expressed by a tendency to disequilibrium of the foreign balances of the powers, but the other way round; it is the balance of Germany, Japan and some others which now tends to show a surplus, and that of the U.S. which is in deficit. The defenders of the U.S.

like Kindleberger deny that the American balance of payments is "really" in deficit. They consider that this deficit is "only apparent" because it is nothing but the reflexion of the use of the dollar as a reserve currency. This is obviously nonsense, because if it were so, there would be no crisis. The fact that there is a crisis (which is reflected in another fact: the devaluation of the dollar in 1971) proves that dollars are accummulating beyond the desire of economic agents for dollar holdings. Few "experts" recognize that the crisis reflects a reversal of the direction of the permanent disequilibrium of the system, which swung over during the 60s, because that would mean acknowledging that the world system is the result of a structural adjustment of the weaker to the stronger, and not of a harmonious universal advance.

It is true that the reversal of the trend in world power relationships is never instantaneous, and it would be childish to conclude that American capitalism has lost all vitality. That is why the controversy over the evolution of the U.S. balance of payments is still confused. It cannot be denied that the flow of American capital exports to Europe is one of the elements of the American deficit, nor that this flow was at least partly due to the discriminatory measures taken by the European Community and the European Free Trade Association against American exports, measures which were got round by establishing American firms in Europe itself. However, these discriminatory measures were the means by which Europe restored its position, a weapon in its arsenal used to change the adverse power relationships of the post-war period. This means, among others, has been effective. The flow of capital from the United States does not only show the vitality of American capitalism, it also reflects the difficulties of accumulation in the United States (i.e. the internal disequilibrium of the American economy). It culminates ultimately in a slowing-down of growth in the U.S. and an acceleration of growth in Europe. Hence, it is an element in

the process of change in the power relationship. What shocked the Europeans was that the international monetary system, based on principles which belong to a period that has been superseded, enabled the Americans to finance these exports of capital so cheaply. In fact the use of the dollar as an international currency enabled them to "borrow" the capital with which they financed their investments in Europe. Now the rate of interest paid on these loans - which are somewhat "forced" because they involve dollar assets held against the will of their holders - remains low (less than 3%), whereas the rate of profit obtained from these investments is considerable (7% to 15%). This mechanism of the transfer of value to the dominant centre is classic: it is no different from that which generally occurs in the centre-periphery relations, particularly in a colonial or neo-colonial monetary zone. It is disputed precisely because the evolution of the power relationship no longer "justifies" this exorbitant advantage of the dollar.

The refusal to consider the change in the power relationship as being the origin of the reversal in the direction of a permanent structural disequilibrium explains the chaotic and contradictory nature, and the theoretical weakness, of the solutions advocated. These solutions never depart from the alternative between flexible exchange rates and a universal currency. The first solution is ineffective, the second is impossible.

Flexible exchange rates are unacceptable if the world system suffers from structural imbalances, which is the case, because they lead to permanent chaos. "Creeping parities" or margins of fluctuation authorized in the context of a fixed exchange-rate system, constitute possible palliatives, but not real solutions. As to the adoption of a universal currency, i.e. and instrument issued by a supranational authority, it presupposes that the problem is solved: that the conflict of interests has been settled at the level of this supranational authority. The "return" to the gold

standard, i.e. a concerted raising of the value of gold, would theoretically enable the volume of international liquidity to be multiplied; but the distribution of this liquidity would still be inadequate, and the evolution of this distribution would inevitably be in line with the evolution of relative power. Moreover the system would not "rid" the world of the use of the national currencies of the dominant countries as international reserves. It has been rightly pointed out to those who have a nostalgia for the 19th century that the gold standard system was also, de facto a sterling standard system, sterling being the national currency of of the dominant country of the time. Thus any change in the international power relationships would entail the transfer of the use of key currencies from one currency to another. Moreover it is difficult to imagine any power today imposing this universal appreciation of the yellow metal when it is recalled that the two main gainers would be South Africa and the U.S.S.R. And if gold is revalued, it will be for quite a different reason, because the creeping inflation of our time requires this revaluation so long as gold is used - as it is - as one of the means of international payment.

The idea of a universal credit currency is not new. Keynes advocated it in 1945 with the quasi-automatic issue of bancors as international disequilibria accurred. Although the granting of this credit was subject to conditions, the system can only function: 1) either if the imbalances are temporary and so the monetary policies prescribed by the issuing agency can be effective, or 2) in the case where the imbalances are structural, if the agency has considerable supranational power which enables it to guide the growth policies of the states effectively and to impose a harmonious world development policy. Triffin took up the utopia at the point where Keynes had abandoned it. The parallel which Triffin draws between the evolution of the international system and that

of the national monetary systems, formerly based on metal, to which was juxtaposed fiduciary money issued by a multitude of institutions which were gradually subjected to a single centre, the central bank, is not absurd. But the "single reserve centre" proposed at the international level, which would be the central bank of the central banks and would create reserves according to modalities such that their volume and their distribution were continuously adjusted to the needs of world trade, presupposes that there are no longer any conflicts between nations.

It is therefore no accident that the international system has been unable to create a universal currency. The system is still based on gold and the key currencies. The I.M.F. special drawing rights are credits dispensed precisely in these key currencies and nothing else. In so far as the dollar was the only key currency (the pound having been endowed with the status of a good second), the I.M.F. was nothing but an executing agency of American Treasury policy. As soon as other currencies aspire to this role, the I.M.F. becomes one of the theatres of conflict between these currencies and the dollar. The creation of special drawing rights in 1969 did not change matters at all. Triffin may well be scandalized by the rule of automatic distribution of these S.D.R.'s in proportion to quotas, which reserves 72% of them to the United States and Great Britain and allocates less than 20% of the "money" to 80 underdeveloped countries, just as he may find "revolting" their use for the financing of national policies (in this case, he explicitly says, the American Viet-Nam war policy). None of that ought to surprise him. For the crisis is not the expression of an abstract conflict between a "palaeo-nationalist" ideology (spread equally among all nations) and the noble ideal of a universal construction, it expresses a specific conflict: that between the dollar, which inherits a dominant position and its advantages, and the candidates for a "more equitable" sharing of these advantages, primarily the German mark and the Japanese yen.

Indeed, the European experience indicates the nature of the conflict. As from 1964, the Community certainly envisaged a system of freely-moving exchange rates, accompanied by measures of monetary solidarity through the implementation of short-term stabilization policies. This style of "concertation" was only effective so long as there was no major conflict of interest. The crisis of 1968 put an end to the illusions: it is now recognized that a common currency (or, which comes to the same thing, unlimited convertibility at a fixed rate) requires a single decision-making centre which ensures the implementation of a single economic and social policy at the level of Europe as a whole. The currency cannot precede the completion of economic fusion, it can only crown the work.

While there is no single supranational authority, either at world or European level there are already, on the other hand, some transnational authorities, which are the multinational corporations. Nevertheless, these do not consitute one entity with a single purpose, but a multitude of interests in conflict, these conflicts transcending frontiers and being superimposed on the conflicts between national capitalisms. That is why it is no longer possible (as it was 20 years ago) to confine oneself to reasoning in terms of national conflicts without examining the strategies of the multinational corporations. The emergence of "eurodollars", noted for the first time in 1957, the development of the market in these liquidities, and the later emergence of similar markets covering other currencies, such as the mark and the yen, bear witness to the increasing role of multinational corporations. In fact these assets, designated in dollars (and now in other currencies), held by non-residents of the United Stated (or non-residents of the country in whose currency they are designated) and invested outside the U.S. (or outside the country of origin), come very largely from the finances of the large multinational

corporations. Extremely mobile, these assets are not those of a multitude of "small speculators" as was the case recently for the mass of floating capital. Their mobility stems from their origin, since the multinational corporations can, by manipulating internal ledger entries, transfer them without difficulty. The amount of eurodollars, euromarks, euroyens, etc. appearing in the international reserves is considerable: of the order of $12 billion in 1971. There is no doubt that the communication between the different monetary markets which they provide weakens the effectiveness of national monetary policies and thereby introduces a further reason for the fragility of the system.

Thus the international monetary crisis must be interpreted as the specific form, in our time, of a deeper crisis of the system. The phase of rapid growth which has characterized the centre as a whole since 1950 is drawing to a close; the weakening of growth rates, evidenced by stagflation (stagnation despite inflation) prevails over growth accompanied by inflation. The contradictions between nations and between multinational groups and corporations, are becoming sharper, and with them the struggle for foreign markets turns into a conflict. Side by side with this, the power relationship characteristic of the post-war period, based on U.S. domination, is rapidly evolving. Hence, the dual crisis: the underlying one of the production-consumption equilibrium, and the one on the surface, that of the international monetary system.

The underdeveloped countries and the international monetary crisis

The underdeveloped countries have no say in the international monetary system. It is true that formally they are members of the I.M.F.; but while they occupy some seats in the sidelines in other international bodies, here they have only a "walk-on" part. For since at least three-quarters of the quota of each member state is paid in national currency, their contribution has only a symbolic

value (and the resources actually usable by the I.M.F. are less than the sum of the quotas of these valueless contributions) since their national currencies are not international means of payment as are the key currencies (dollar and pound) or the hard currencies (mark, yen, Swiss franc etc.) some of which aspire to enter the dominant group. That is why I.M.F. policy is formulated in the smaller group of "TEN" which constitutes the international monetary system.

Actually the admission of the underdeveloped countries fulfils two functions. The first is to constitute an extra element of pressure appealed to by the protagonists of the various policies within the group of TEN. We saw at the Rio Conference (1967) how the U.S. imposed the solution of special drawing rights by stressing - somewhat heavily - the "fallouts" of a small fraction of these rights on those among the "80 poor" members of the Fund who would comply with the policies advocated by the Fund.

For the second function of the Fund is to keep the monetary behaviour of the periphery within the framework of the operating needs of the international system. For this the colonial powers had, and sometimes still have, far more efficient institutional instruments: the monetary zones (sterling, franc, escudo etc.) and the network of their commercial banks which dominated, or still dominate, the monetary system of the colonies and dependent countries. In the period after the second world war, all African and nearly all Asia were still dominated and controlled in this way, mainly by the pound sterling, and secondarily by the French franc. This still considerable power of the pound, out of proportion to Great Britain's place in the world economy, was one of the major reasons why the pound was adopted by the I.M.F. as the second key currency. But at the time Latin America still escaped any formal external monetary control. Moreover the United States aspired to get a foothold in the areas of Asia and the Middle East which were acceding to political indepen-

dence. The I.M.F. provided it with the necessary framework for organizing this take-over. Indeed this policy paid off. Since Latin America gradually fell into the bosom of the dollar, while Asia and the Middle East left that of the pound. When in 1960, Africa attained international sovereignty it could not be refused membership of the Fund, although this membership had little meaning for countries which, like those of the franc zone, did not have the minimum of monetary autonomy to enable them to have any monetary policy.

If we want to understand how the Fund fulfils this function for the system with respect to the countries of the periphery, it must first be remembered that the underdeveloped countries almost continually have external payments difficulties, which reflect the fundamental structural centre-periphery imbalance and the systematic transfer of value from the periphery to the centre.

While we are more or less accurately informed of the volume and trend of the gross and net reserves of the developed countries, little is known about the situation of must underdeveloped countries. Although the gross reserves of the monetary system are counted, the indebtedness of the underdeveloped countries is not at all well known; the borderline between short-term debt (the only element - and only partly - which is shown in the bank entries) and medium- and long-term debt is here shifting and not very meaningful: a far from negligible part of the long-term debt is used to cover the immediate needs of a largely imported current consumption. Added to the debts of the monetary system there are hence those of the government and the private and public enterprises. Moreover considerable sums represent the assets of "residents" (including nationals) invested abroad illegally, which are not for all that part of the national reserves because these assets are in no case destined to be repatriated.

Therefore, in following the state and evolution of the gross reserves of the Third World as they appear in the I.M.F. statistics, one may get the impression that the underdeveloped countries do not on the whole suffer from inadequate international liquidity.

With regard to Asian countries, the gross international reserves of twelve non-petroleum exporting states for which comparable statistics are available from 1948, fell from $5.4 billion in 1948 to $3.7 billion in 1951 and $3.6 billion in 1966; while the imports of those countries rose from $4.4 billion to $5.1 billion and then $9.5 billion respectively for each of these three dates. Asia, which had considerable reserves after the war, particularly India's sterling balances (more than £1.2 billion for India and Pakistan) saw its reserves melt away, rapidly from 1948 to 1951 (the ratio of reserves to imports fell from 122% to 73%), then more slowly but nevertheless regularly after that date (the ratio was 38% in 1966). The reserves of the large countries like India and Pakistan hardly cover more than three months' imports. The reserves of the small states behaved better, particularly those of Thailand which increased by $0.7 billion between 1948 and 1966. The reserves of the oil countries of the Middle East increased sharply: those of Iran and Iraq from $0.3 billion in 1951 to $0.7 billion in 1966; while those of Kuwait (reserves of the Currency Board and the government) rose to $1.1 billion in 1966 and those of Arabia (Saudi Arabia Monetary Agency) to $0.8 billion.

With regard to Latin America, our calculations based on sixteen countries for which we have comparable statistics show that the ratio between reserves and imports, close to 50% in 1948 (the reserves amounted to $2.5 billion, the imports to $5.0 billion) remained the same until 1953. At that date imports had gone up to $5.9 billion and reserves to $2.8 billion, this improvement in reserves being almost entirely due to Mexico. But from 1953 the

situation began to deteriorate steadily. In 1962 the reserves were no more than $2.3 billion and imports $7.9 billion (reserves-imports ratio less than 30%). It is true that between 1962 and 1967 the situation seemed to improve because while imports rose to $9.5 billion, the reserves rose th $3.1 billion. In reality this improvement came almost entirely from two sources: the increase in the reserves of of Venezuela, as we know a large oil producer (increase of $254 million in five years) following that country's deflation policy. Excluding those two countries, the reserves-imports ratio continued to deteriorate and fell from 30% in 1962 to 23% in 1967 (reserves: $1.6 billion, imports $5.1 billion).

With regard to Africa, the statistics concerning the 28 countries for which we have comparable series from 1960 show a reduction of their gross international reserves from $2.9 billion dollars in 1960 to $2.2 billion in 1965, shile between the same dates their imports rose from $4.0 billion to $5.9 billion.

Between 1964 and 1970 the evolution of the gross reserves-imports ratio for the underdeveloped countries was apparently favourable. The reserves rose from $9.9 billion in 1964 (of which 2.2 for the petroleum countries) to $18.1 billion in 1970 (of which 4.2 for the petroleum countries): while their imports rose from $35.5 billion to 55.6 billion. Thus the gross reserves of these countries increased from 28% of their imports in 1964 to 32% in 1970.

If we took into consideration net reserves, i.e. after deducting short-term foreign debts, we would probably find a deterioration of the situation for the period 1950-70. For example, for the 28 African countries considered, the ratio of net foreign reserves to imports fell from 60% in 1960 to 23% in 1965. The same applies to Asia and Latin America, net reserves representing about two-thirds of the gross reserves and the indebtedness growing more rapidly than the volume of gross reserves.

APPENDIX I

AFRICAN INSTITUTE FOR ECONOMIC DEVELOPMENT AND PLANNING

PLAN OF EXPENDITURES
SPECIAL FUND ALLOCATION
(in US dollars)

	Total project costs	Estimated cash disbursement						
		1964	1965	1966	1967	1968	1969	1970
PERSONNEL SERVICES	3,446,161	149,916	388,337	371,336	540,522	720,519	725,531	550,000
FELLOWSHIPS	1,168,003	-	38,478	74,163	131,487	295,148	348,727	280,000
EQUIPMENT AND SUPPLIES	295,178	1,714	43,065	33,608	67,050	60,356	40,485	48,900
MISCELLEANOUS	277,173	86	36,848	26,380	44,329	58,330	59,700	51,500
TOTAL GROSS PROJECT COSTS	5,186,515	151,716	506,728	505,487	783,388	1,134,353	1,174,443	930,400
EXECUTING AGENCY OVERHEAD COSTS	469,600	2,750	27,000	93,890	104,590	99,240	39,930	102,300
SPECIAL FUND DIRECT COSTS	57,890	17,926	-	-	-	23,038	16,594	232
TOTAL SPECIAL FUND ALLOCATION	5,714,005	172,392	533,728	599,377	887,978	1,256,631	1,230,967	1,032,932

Project Symbol : REG-19

Code : 249

Agency : United Nations