GOLD POINTS A MORAL

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Enquiry into the Failure of the International Gold Standard and its Bearing upon the Future

by

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TO MY FATHER

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Wissenschaftliche Forschung kann für politisches Handeln die Erkenntnisgrundlage gewinnen, nicht hingegen die Politik selbst bestimmen.

Prof. HARMS

Mais je tiens que, cela fait, c'est le changement moral, en se réalisant, qui produira vraiment le changement économique, lui donnera vraiment l'être....

JULIEN BENDA

AUTHOR'S PREFACE

The material incorporated in this study was originally meant to be presented to Columbia University in fulfilment of the last requirement for the degree of Doctor of Philosophy. As the work progressed, however, and by the time the first painful fifty pages had been put on paper and torn up again, I became more and more aware that I had emerged out of the initial period of reading and study with convictions and aspirations which it would be difficult tot clothe in the sober garments of modesty and reserve rightly prescribed for a University thesis. Soon after the last words of the manuscript were written (March 1934) it furthermore became clear that owing to the pressure of other work, presentation in thesis form would mean indefinite delay, delay which would almost certainly render a complete revision inevitable.

These considerations have led me to the decision to send out my brazen unkempt first-born under his own flag, to meet whatever fate he deserves. In so doing I have one great regret. Time, that relentless foe of the writer on current events, has not allowed me to weave into the text all of the wise and helpful suggestions which my academical sponsor, Professor H. Parker Willis, with his generous understanding of a young writer's problems and ambitions, has so kindly offered. Had I been able to do so, this little book would have presented a far more polished aspect.

If also want to express my deeply felt gratitude to Professor Bronislaw Malinowski, who, if he remembers a certain luncheon at all, can surely never have been aware of the tremendous fructifying influence which a few chance words of sympathy then dropped have exercised upon a groping adolescent mind. Equally intangible yet equally valuable has been the unspoken but thereby all the stronger moral support which I have continually received from my friend Mr. Albert Palache. To him I owe a

heavy debt of gratitude, yet one whose weight by virtue of his graciousness, I have never for one moment felt.

The Staff of the Haldane Library of the London School of Economics has been of great assistance in the collection of the material. Their constant cheerful helpfulness during a period when the bedlam of rebuilding the library must have made life rather trying, will not be lightly forgotten.

The Hague, October 26th 1934

INTRODUCTION

> The real difficulty, then, has its roots not in this or that economic problem, but in the fact that the form of public life in which the economic capabilities should develop themselves is altogether inadequate to the magnitude of these latter.
>
> José Ortega y Gasset

The writer about to add his shovelful to the enormous dustpile of gold standard literature owes an apology or rather an apologia. So much has been written on the subject, so many eminent economists have spoken their minds about it that a new contribution cannot hope to claim the attention of a weary and oversatiated public without first giving a statement of the reasons which have led its author to believe that there is anything more to be said.

The reasons which we have to offer as our apologia are twofold. First, so far few attempts have been made to ascertain from a comprehensive study of the recent experiences of the countries in which the international gold standard has most signally failed to function, what fundamental organic changes of economic society are capable of explaining this failure. The world has been given any number of isolated explanations of the breakdown in any one country to the authors of which the present writer must at once discharge his debt of gratitude. But the fact that these explanations have usually been limited to specific instances and that in many cases they indicate the immediate causes rather than the underlying influences, has lessened their ability to throw light upon the future possibilities of the international gold standard. They are pure history with all the merit that implies; attempts to determine as accurately as possible the truth of the past without regard to its application to the future.

It is in this last respect that the present treatise differs from a good number of the existing works on the subject. For its aim

is not so much to write history, as to help, be it ever so little, in making history; to find in the ruins of the past the foundations on which the future can be built; to discover under the diversity of immediate causes of the breakdown the organic changes of economic society without a knowledge of which the builders of the new order cannot hope to succeed. Necessarily such procedure must lead to a certain perversion of historical truth. More emphasis will be put on some causes of the gold standard's failure than a strict limitation to the facts of history would permit. It is the inevitable price of keeping one eye on the past and one on the future. To those who object to such frank admission of the partial validity of our conclusions we would like to reply in the outspoken language of a Spanish philosopher that all thinking is an exaggeration and that "if you prefer not to exaggerate you must remain silent or rather you must paralyse your intellect and find some way of becoming an idiot" [1]).

The second reason we have for offering this study unabashed by the immense amount already written is very simply that the subject is of such vital importance that no serious attempt to add to its elucidation can be considered superfluous. It is not as if the international gold problem were merely a technical economic controversy revolving around the question whether the experiences of the last few years have proven the international gold standard to be an unsatisfactory measure of value that can be easily replaced by another capable of fulfilling the same tasks with less friction. No indeed, there is far more at stake than the choice between two instruments. *The fundamental issue is not whether the world shall return to gold or establish a different international standard but whether it shall return to an international standard at all*; whether the nations shall again tie themselves together with a common measure of value or whether unshackled by any ties they shall drift apart into the stagnant pools of economic isolation. That is the real question thrown up by the recent breakdown, a question whose far-reaching implications to the moral, material and political development of mankind far transcend the merely technical point of gold versus paper or any other substitute.

* * *

[1]) Ortega y Gasset: The Revolt of the Masses, 1932.

The statement that the gold problem is at bottom only a phase of the paramount issue of our time, nationalism against internationalism, will need some clarification. Consider, then, what the international gold standard such as the world has known it for the last fifty years, has been. Essentially it was a more or less tacit understanding between the nations of the world to maintain a common measure of value and, which is the same thing, a common standard of debts. Values and prices in all countries were to be expressed in the universal medium gold which at the same time was the unit of value in which all debts were to be contracted and discharged. Now it is clear that with a common measure of value under whose rule exchanges must be stable, foreign trade price risks originating with the exchanges are eliminated or at least reduced to insignificance. In other words the adoption of a common measure of value has rendered the sale or purchase of goods abroad or the production for foreign markets every bit as safe as that within the national boundaries. *It has made out of the several national markets one huge world market and in so doing it has made possible an intensive commercial interpenetration* with all the incalculable material benefits to the members of the world economy which such extension of the division of labour always carries with it. And just as the international measure of value has promoted commercial interpenetration, so its other aspect, the common standard of debts, has greatly contributed towards financial interpenetration. Future payments always being due in units of the same universal and invariable medium of exchange, capital was free to flow abroad with no more risk than if it moved within the national boundaries. The common standard of debts broke down the barriers which previously had kept each country a reservoir of capital from which only a small trickle dared escape; it left capital free to flow where its productivity was greatest and in this way it too vastly accelerated the world-wide growth of material wealth.

* * *

It will not be hard to see that this economic and financial interpenetration could not fail to render the nations enjoying the vast material benefits thereof ever more interdependent and

mutually sensitive. Under the reign of the international gold standard the fusion of markets has become such that the financial or economic misadventures of one country immediately exercise their repercussion upon all others while on the other hand this universal golden reign has subjected the volume of credit and therefore the state of trade in any one nation to the influences of monetary happenings or policies in any other nation. *This loss* of *national independence is the price, if price it can be called, we must pay for our greater material welfare and it is the obstinate refusal to pay this price which lies at the bottom of the agitation against a return to the international gold standard.*

* * *

True, in some quarters the opposition is not so much against the loss of national autonomy which the international gold standard implies as against the choice of a material commodity whose supply, and therefore its value, is governed by accidental causes, as a measure of value. But if one considers the alternative proposed in this camp it becomes clear that at bottom and perhaps unconsciously its advocates too are motivated by the resentment against national dependence. For what is the demand for managed paper currency but a demand for complete freedom of action for national credit autonomy? How can a managed currency ever be an international measure of value unless it is managed by an international authority? Only in that form which very few members of the managed currency school are bold enough to advocate as a practical measure, could it be a substitute for the international gold standard, a common measure of value affording the same facilities for commercial and financial interpenetration as the gold standard has provided in the past. For it is obvious that where no such international management exists and where every country is free to regulate the quantity of its currency, according to its own devices, there can be no question of a common measure of value or stable exchanges. *Let its be quite clear then that he who is against the restoration of some form of the gold standard or a common measure of value is against the return of economic internationalism,* unless he be one of the few who believe in the practical feasibility of an immediate

transition to an internationally managed currency. And although we have no quarrel with those we would like to remind them of the admonition of the Macmillan Report that "there can be little or no hope of progress at an early date for the monetary system of the world as a whole except as the result of a process of evolution starting from the historic gold standard" [1]).

* * *

Now it is our refusal or inability to recognize that the advantages of economic and financial interpenetration must be paid for with a certain loss of national independence and national autonomy, which in ultimate instance accounts for the havoc wrought by the international gold standard, just as it accounts for the unprecedented depth and scale of the depression of which the gold standard's failure is only one aspect. This becomes clear as soon as one regards one of the aspects of the intra-national penetration of modern times; the huge increase of the volume of short term capital which wanders from market to market with exactly the same ease as capital flows back and forth within the national boundaries. As will be shown more fully in the later parts of our study, the presence of this vast fund of international short term capital must continue to upset the machinery of the gold standard until a supra-national organization is created which fulfils the same function of regulating and redistributing the flow of funds in the international field as existing central banks now do within national boundaries. And it is clear that the existence of such an institution implies a sacrifice of national credit autonomy which is unthinkable without a concurrent sacrifice of political sovereignty.

In substance the nations of the world have joined hands and joined them so firmly that they can only unclasp their grip at the risk of wrenching off their right arm. And this is exactly what the spirit unable to follow the amalgamation of substance is urging them to do. The material base of economic life has become international to the immense advantage of all concerned, but the spirit of man clings to a national base threatening the

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[1]) p. 109.

very existence of substance, existence "qu'elle ne peut se donner seule" [1]). Partly this inability of the spirit is due to a defect of the mind, the failure to understand that it is only by rising above the concept of absolute national sovereignty in both the political and the economic realm that the rich fruits of interpenetration can be permanently secured. Partly and probably far more important, it is due to a defect of the heart, the refusal of mankind to admit that there is a higher good than the good of the nation [2]).

* * *

This, then, is the real issue thrown up by the gold standard problem. Are we to pay up our debts at last and replace the present chaos of absolute national sovereignties with an orderly juridical commonwealth of nations in which alone a common measure of value can continue to promote the further growth of material welfare? Or are we to flinch in the face of this staggering task and lamely let ourselves drift back into the material and spiritual barbarism of economic isolation? It is no use closing one's eyes to the transcendent importance of this question as a resurrection of the international gold standard in its old form and on its old base must eventually lead to worse cataclysms than the last. What the answer will be is not for us to say, for it will be decided not in the minds of men but in their hearts. Our task is solely to promote a better understanding of the problem in the firm belief of the Chinese sage that "la vertu c'est la connaissance".

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1) Benda, Discours à la Nation Européenne.

2) It is a curious illustration of the strength of the Idea that this unwillingness of the spirit to follow the substance exists even there where it is recognized that such refusal involves considerable sacrifice of material gain. No better example than Germany's insistence on economic autarky. Doubtless those favouring autarky are fully conscious of the tremendous sacrifice of material welfare which is its inevitable price. But so strong is the force of the nationalist idea that they are able to contemplate these sacrifices with equanimity in the confident belief that their faith in the antichrist, the kingdom of nations within them, which ethically speaking is nothing but the glorification of the collective self (Benda), is of greater value than what they are pleased to call base material gain. The spirit triumphs over the flesh but it is an ignominious victory for the flesh is good and the spirit evil.

CHAPTER I

> Endlich kommt es bei einer Schrift wie der meinigen wohl überhaupt weniger darauf an ob die einzelneThese bis ins letzte haltbar ist oder nicht, sondern darauf ob durch die gesamte Betrachtungsweise die Erkenntnismöglichkeiten wirtschaftlicher Tatbestände gefördert werden.
>
> ALBERT HAHN

The first task in promoting a better understanding of any problem is to define clearly what that problem is. In the preceding pages we have spoken of the failure of the international gold standard as the object of our study. It is now time to establish as accurately as possible what we understand by this, for the term is by no means as obvious as might appear at first sight. Ask any economist what the international gold standard is supposed to do and you will get two answers. Inasmuch as it is a *gold* standard it is devised to put an automatic and more or less invariable limit upon the volume of currency and credit, in this way to maintain the internal value of the measure of value at an even level. Inasmuch as it is an *international* standard, its purpose is to maintain a common measure of value and therefore to maintain stable exchanges. It is only the latter aspect which is of interest here, for it is really only in this aspect that we can speak of the failure of the *international* gold standard. That it has failed is evident enough in the fact that at the present time there is no longer an international gold standard or a common measure of value, and it may be taken for granted that even our mad world is not quite mad enough to discard a highly beneficial instrument without some provocation.

In what, then, does the failure of the international gold standard consist? Has it not fulfilled its task of maintaining stable exchanges? Of course it has. The question is really rather silly, for it is self-evident that as long as there is an international gold

standard, there must be stable exchanges since it is ridiculous to expect one gold currency to fluctuate in terms of another. The international gold standard does not make for stable exchanges, it *is* stable exchanges, or still better, it eliminates the exchanges altogether, as there is no more sense in speaking of the exchange rate between a gold pound and a gold dollar than in speaking of the exchange rate between 4.86 potatoes and one potato or between a dollar and a quarter, or a pound and a shilling. Under a common measure of value such as the international gold standard, national currencies stand in just about the same relation to one another as the several denominations of one currency within the nation. Their rate of exchange is fixed once and for all within very narrow limits by the different weights of the same metal which they represent. The failure of the international gold standard, then, is not that it has been unsuccessful in achieving its immediate task, but that within the world market over which it presides, its rule has been accompanied by a disastrous maldistribution of the units of the common measure of value. In achieving its immediate aim it has completely failed to fulfil its incidental function of maintaining an equitable distribution of gold, and this is what we have in mind when speaking of the gold standard's failure whose causes it is the purpose of this study to investigate.

* * *

In order to understand how a common measure of value which functions properly, can and does bring about such distribution, consider how money is distributed within a modern nation rather than in the gold standard world at large. It is clear that the currency arrangements in the nation are exactly the same as those of a gold standard world; that is to say, the different parts of the country operate with a common measure of value just as the different countries operate with a common measure of value. How, then, does the equal distribution of units of the common measure of value, between the different parts of the nation come about? Very simply. Let the Southern regions be blessed with sun and their opposites cursed with fog and let the Southern Arcadia at one time of the year effect a heavy movement of its bountiful crops to the North. The latter must pay, no

matter whether by remitting gold, currency or cheques, so that a movement of money from North to South takes place. Follows the operation of the process which has been abstracted into the so-called gold flow theory which in essence is nothing but an extension of the much maligned quantity theory of money. As the first result of the displacement of money interest rates will fall in the South and rise in the North, thus giving rise to a reflux of funds from the cheaper to the dearer market and setting in motion what throughout this study we shall call the short-term or interest rate corrective of money movements. If this does not restore a proper distribution, prices will rise in the South and fall in the North and the consequent alteration in the movement of goods from the one to the other will sooner or later reverse the flow of money till the situation quo ante has been re-established. This is what is usually referred to as the operation of the long-term or price corrective.

* * *

Of course all this is familiar to the point of nausea. But what is often forgotten the way man rapidly forgets what he has got in the desire for that which he has not, is that it is really rather a marvellous thing that this flux and reflux of money within a modern nation should occur with as little friction as it does to-day. Let us remember that it has not always been so and that there have been times when the flow of money within a nation was far from being taken as a matter of course. It is only by much thought, by mutual co-operation and by organised regulation of the natural redistributive tendencies that we have succeeded in eliminating the violent disturbances which formerly only too often accompanied the "natural" redistribution of money within the nation. For the process described above of changes in interest rates and prices brought about by movements of currency, is only very partially automatic and far from frictionless. If left to work itself out without assistance it can and often does lead to dire distress and severe dislocations of economic society, as the recent history of the flow of money *between* nations has shown only too plainly. At one time or another practically every nation has had to struggle with these same difficulties within its own boundaries. They were the inevitable result of the adoption of a common

measure of value for the whole country when this step was not accompanied by the foundation of a central regulating institution. For what the common measure of value does is to render the currency used in any part of the country acceptable to all other parts, in other words, it makes the local currency exportable. Thus the situation could arise as it often has done where either the mistrust of non-resident creditors or a disequilibrium in the movement of goods between different sections of the country led to an accumulation of currency in one part and a shortage in another part. Sometimes the maldistribution so caused would smooth itself out through the operation of the interest and price correctives already described before any great damage had been done. But at other times and probably more often than not it failed to do so with the result of great distress and economic waste, or it did even itself out but only after considerable and avoidable economic friction.

That internal disturbances of this kind have become a thing of the past is almost entirely due to the realisation that with the growing interdependence and integration of the several parts of the nation, the natural redistributive process could no longer be relied upon smoothly and quickly to effect the continuous flux and reflux of the large volumes of money to which the economic unification gave rise, and that intelligent control of natural forces was required to re-establish monetary stability. Thus country after country took its monetary and economic destiny out of the hands of crude and irresponsible natural laws and placed it in those of a central organisation. The wisdom of this decision to exchange the easy faith in divine intervention for the strenuous and self-imposed task of human control need hardly be illustrated. What greater eulogy than the elimination of virtually all friction in the internal distribution of money which Central Banks have achieved? And not only have they succeeded in eliminating the friction formerly attendant upon the operation of the price and interest correctives but also they have reduced the always necessarily rather painful operation of these correctives to a bare minimum. The price corrective probably never comes into play within a modern nation and the interest rate corrective, the spreading movement of interest rates between debtor and creditor centres, is almost always kept within very narrow limits.

* * *

The foregoing sketch of the progress within the nation from the ruthless shock tactics of monetary laissez faire to the smooth flux and reflux of modern times might seem irrelevant but for the fact that it affords an excellent projection of the road the world still has to travel if it aspires to the same degree of international stability as the nations have already secured within their frontiers. For the world as a whole is now where the nation was when it attempted to maintain a common measure of value without a Central Bank to secure its equitable distribution between the different parts of the country. Just as the nations of earlier times, relying on the automatic correctives to promote an even flux and reflux of money, hoped to muddle through without the help of a central supervisory institution to tide them over in times of need, so the world of to-day tries to dodge the necessity of international organisation in the devout belief that these same hopelessly inefficient natural forces will serve to maintain an even flow of gold between its component parts. How sadly it has been deceived in this belief, how lamentably the natural forces have failed to maintain an equitable distribution of world money is only too clearly shown by the disastrous maldistribution of gold in the post-war era. World money has drained away from some countries and flooded others till all but one of the big powers have been forced to cut away from the international measure of value, of which they were unable to keep a sufficient supply, and substitute another national one of their own making.

In case any one is disinclined to take these statements at their face value, let us cite a few figures in illustration of the total absence of anything resembling a smooth flux and reflux of gold. We limit ourselves to a period during practically all of which the entire civilised world, except for China, was "on" the international gold standard, that is to say, when the currencies of all countries represented gold in some form or other. Obviously it is only in such a period that there is question of a common measure of value, and as we have seen it is only under such conditions that the even flux and reflux of the units of this measure of value can be expected to take place.

Of the increase in world gold reserves resulting from new production and the outpour of Asiatic hoards which totals

$ 1,338,000,000 between December 1928 and December 1931 [1]), no less than $ 1,291,000,000 or 96% is absorbed by France and Switzerland alone, which two countries together hold only 4% of the world's currency using population [2]). In the same period there is a further drain of gold to Europe of $ 582,000,000 [3]) while the shift of gold within Europe involves even larger amounts. To mention a few of these movements: Germany lost 63% of its gold and gold claims, Austria 80%, Hungary 58% and the United Kingdom 21%. On the other side of the fence are France with a gain of 36%, Holland 73%, and Switzerland 300%. The challenge of these figures is unmistakable. No further support is needed for the contention, therefore, that the combination of natural forces which we shall henceforth refer to as the gold flow mechanism, has completely failed to maintain a smooth flux and reflux of the common measure of value.

* * *

We see, then, that the distribution of money which works itself out almost unnoticeably within the national community has not worked itself out at all in the world community. Yet the process is exactly the same in the microcosmos as in the macrocosmos. For let it not be thought that we are carrying the analogy between an internal and an international flow of money further than the facts warrant. To make this clear stop for a moment to compare the two cases of a one sided stream of payments between two parts of a nation and a similar stream between two different nations. What happens in the first case is that the debtor centre will send a batch of cheques to the creditor centre. The latter will collect these cheques at the banks in the debtor centre upon which they are drawn, where they will be paid with a cheque on the Central Bank. This means of course that a part of the debtor bank's reserves at the Central Bank is transferred to those of the creditor bank. Now consider what happens in the second case — that of a one-sided stream of payments between nations. The

[1]) Gold Report of the League of Nations. This figure represents the net increase after deducting a decrease in "other gold stocks" of $ 346,000,000 most of which represents the absorption of circulating coin into central bank reserves.
[2]) Interim Report of the Gold Delegation of the League of Nations.
[3]) Gold Report.

debtor nation will also send cheques to the creditor nation for a bill of exchange is practically always a bank cheque pure and simple. The latter will collect these cheques at the Central Bank in the debtor nation where they will be paid in gold [1]). Thus gold reserves will move from the Central Bank of the debtor nation to the Central Bank of the creditor nation. If it is clear, therefore, that what really moves between different parts of the country is exactly the same as what moves between different nations, namely bank reserves, then it follows that an internal and an international flow of money should also produce the same effects and correct themselves in the same manner.

If the flow of money within the nation operates in exactly the same manner as that between nations, why does the latter fail so conspicuously to bring about the frictionless reflux which always follows the flow of money within the nation? To a small extent it is due to the greater difficulties of a spatial nature attaching to the flow of money between nations. But the essential explanation lies in the fact that within the nation the reflux of money is facilitated by the coordinating agency, the Central Bank, while the reflux between nations is left to work itself out solely by the uncontrolled operation of the natural correctives, the gold flow mechanism. And as the experience of the last few years has shown this mechanism is apparently totally incapable of guaranteeing that such smooth flux and reflux of money shall take place. Yet despite the incalculable losses and deprivation caused by the uneven distribution of world money (which as we must always keep in mind, is the basis of national moneys in the form of note currency and bank deposits so that a drain of the former inevitably entails a contraction of the latter) despite the fact that this uneven distribution has been one of the deepest "causes" of the appalling dimensions of the world depression, there exists a very powerful if not dominant body of opinion favouring an immediate return to exactly the same conditions as have brought about the present impasse. It is demanded that we restore the common measure of value at the earliest possible moment, then to trust in

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[1]) The fact that the cheques are not actually collected by the creditor banks but pass through the foreign exchange market, does not in any way alter the essentials of the operation as described in the text. Under our hypothesis of a one-sided stream of payments giving rise to a discount on the debtor's currency the arbitrage process is nothing but a roundabout way of collecting the cheques in gold.

the benevolent operation of the gold flow mechanism to maintain the even distribution of world money which it has so plainly been unable to do in the past.

* * *

There is something likeable in this attitude. It is not only that it betrays a perhaps more or less subconscious preference for the internationalism which the common measure of value entails, but also its sporting flavour, its willingness in view of long years of faithful service to give the gold standard another chance rather than to give it up in disgust the moment something goes wrong. But much as we appreciate the moral qualities of the protagonists of a return to the *old* gold standard, it is difficult to sympathize with their thinking. For the policy they advocate is opportunism of the worst kind. What reason is there to expect that in the future the gold flow mechanism shall be any more successful in permanently maintaining a smooth distribution of gold than it has been in the past? It is no use talking of "abnormal conditions" of recent years as being responsible for its failure. For one thing, neither political friction nor business cycles which are usually paraded as the factors accounting for the mechanism's failure, are in any way abnormal in the sense that they will never recur again. This is very sad, no doubt, but so are a good many facts. It is no better than ostrich policy, therefore, to pretend that henceforth politics and economics will live happily together ever after, allowing the gold flow mechanism to function undisturbed. Moreover, even if such bliss descended upon our weary world it would still be very far from guaranteeing that the mechanism would work satisfactorily, for political friction and business cycles are not the underlying causes of the breakdown but merely the stones that set the avalanche rolling. As we shall try to show at the examples of post-war experience, the real explanation of the mechanism's failure lies with certain organic changes of economic society; the material integration of the nations manifesting itself positively in the growth of the international short loan fund and the volatilization of international long term investment and negatively in the rise of tariff barriers; the growth of the social conscience and the resultant rigidity of price levels; the recog-

nition of the benefits of price stability and the evolution of credit control. These are the real underlying influences. Some of them are changes of matter and some changes of the spirit that controls matter. But whether material or spiritual they are all without exception what we may call organic changes. Moreover, when judged by ethical standards which remain the only decisive measure of desirability, they are *good* changes, that must be reckoned with in a reconstruction of the world, not only because they are likely to stay with us whether we like it or not, but also because it is *desirable* that they stay with us.

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In view of this organic growth of the world's body and the world's mind the attempt to fit it again into the jacket of the old gold standard is plain madness, and can only result in a renewed explosion with gold buttons flying hither and yon. One is tempted to draw a parallel between those who favour this course in the confident belief that the gold flow mechanism will somehow work and a certain type of devout old gentleman we all have known at some time or other. The type who by their expression of benign wisdom attract young lads eager to pour out to them all the harassing problems of mental adolescence and who answer their request for guidance with a smile of Pecksniffian saintliness and the advice not to worry and especially not to think, but "to go and trust God because He will take care of all that". And as often as not that will be the end of the boy's spiritual curiosity: vaguely looking at the sky he will go away and trust God, a nice easy God very unlike Shaw's "creative life force", who henceforth will rid him of what Sydney Webb aptly calls the "intolerable toil of thought". This is just about the attitude taken by the protagonists of the old gold standard. For just as the devout old gentleman counsels a blind and passive trust in a God who has been handed on to him by other devout old gentlemen and whose meaning or creative purpose he has never taken the trouble to discover, so the old guard of the gold standard counsels a stagnant faith in its traditional divinity, the gold flow mechanism, in the comforting belief that this divine combination of natural forces will release man from the strenuous task of moulding his own

economic destiny. It need not be stressed that the tangible consequences of such mistaken faith will be far more serious than those that befall the adolescent in our parallel.

* * *

But let us not indulge too much in the easy joys of destructive criticism which at bottom is usually stimulated more by the gratification of knowing others in the wrong and by implication oneself in the right than by the desire to promote the universal reign of truth. Much better to attempt to understand the ground on which error is flourishing, for it is only by doing so that one can hope to confound it. The question rises, then, what can explain this stubborn widespread belief in the future possibilities of the gold flow mechanism. There are several answers. First of all and most obviously, the strength of precedent. The mechanism has worked in the past: ergo it will or at least it should work in the future. Apart from the fact that in a dynamic and growing world such as ours this reasoning fairly screams with lack of logic, it has the further defect of being based on an analysis of the past which is only partly borne out by the facts. Thus it is forgotten that inasmuch as the mechanism has worked in the past it has been able to do so not by the grace of God but to a considerable extent by the grace of England. As Somary has pointed out in his work "Bankpolitik" [1]) England in earlier days when it was still the undisputed financial ruler of the world has more or less acted as a world central bank regulating the even flux and reflux of money in somewhat the same way as national banks do within countries. Obviously this situation has disappeared with the rise to power of the United States. Furthermore, while it is true that the mechanism has worked in the sense that world money has in general distributed itself fairly evenly, this is a very different thing from saying that it has worked as we want it to work in the future. We have become more exacting, we want a smooth frictionless distribution of world money such as that already existing within national boundaries, and this the gold flow mechanism has never been able to achieve in the past.

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[1]) p. 150.

This brings us to the second explanation of the persistence of the faith in the automatic gold flow mechanism which is that those professing such faith have completely closed their eyes to the organic changes of substance and spirit, indicated at another point, which render the mechanism less and less capable of fulfilling its redistributive function. To open their eyes in this respect, if they have not been opened yet by the numerous works already published, is one of the main purposes of our study [1]).

Finally, there is one more explanation for the tenacity of what we have called the old guard of the gold standard and its unwavering trust in the gold flow mechanism. It is the natural inertia of the mind and its instinctive conservatism. No one has expressed this better than Schumpeter, in the following passage — "The history of science is one perennial confirmation of the fact that it is extremely difficult to possess oneself of a new way of thinking. Continually our thoughts slide back into the accustomed groove even when it is no longer useful and no great difficulty attaches to the newer and more useful conception. The nature and the life-sparing, labour-saving function of a fixed habit of thought derives from the fact that it has become subconscious, that it produces its conclusions automatically, secure against criticism and regardless of the contradiction of facts. This it does even when its hour has come and thus it becomes an encumbrance" [2]). An encumbrance is exactly what the gold flow theory has become. It has grown to be a fixed habit of thought delivering its conclusions automatically like a penny in the slot machine, in the face of a contradictory body of fact.

But, it may be objected, how can you attribute any power to a "mere theory" in the shaping of life, for that is what you are doing when you consider the strong hold of gold flow theory one

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[1]) The reader is warned beforehand that our method of arousing him from his slumber is not a particularly pleasant one. It involves the protracted and often dry analysis of the recent monetary history of those nations in which the failure of the mechanism has been most pronounced. Those who are not prepared to wade through a good deal of statistical and theoretical discussion of a sometimes rather technical nature are advised to limit themselves to the summaries which will be found at the end of most chapters, and to the closing chapter in which we recapitulate our conclusions. It may also be indicated at this point that the investigations of the several national experiences are quite independent from one another, so that those specially interested in one of the countries covered may safely pass over the others without losing the thread of the argument.

[2]) Theorie der wirtschaftlichen Entwicklung 1926 p. 126.

of the fundamental factors in the agitation for a return to the old gold standard: you might as well say that a mirror *makes* you look dissipated after a night's excessive frivolity as say that a theory *makes* things happen in the world. It should not be difficult to discredit this objection. Apart from the fact that it is obviously based on a gross misconception of the nature of theory which does not *reflect* reality but attempts to make it comprehensible by *ordering* it, by establishing the relationships between phenomena, it is furthermore everywhere contradicted by historical record. Has the theorem of the identity of private and collective interest played no active role in the shift of economic policy from Mercantilism to Laissez Faire? Has the Marxian theory of historical materialism merely "reflected" the enormous growth of the political power of labour? Have the theories of physics, mechanics, chemistry, had no positive influence on the material welfare of the world? We shall not insult the intelligence of our readers by answering these questions. It is only for the benefit of that large body of so-called practical men who are so inclined to smile condescendingly upon theory and who, as Ortega y Gasset has said, "have converted the man of science into a new social pariah", that we call attention to the indisputable living power of theory and to the fact that it is "mere theory", the product of disinterested search for truth, which has enabled man to make the world into what it is today. That that is not something to be very proud of is another matter altogether.

* * *

It needs no great deal of perspicacity to see how the theory in which we are here interested exercises its positive influence. Originally formulated as an answer to the question how under certain conditions the smooth flux and reflux of money comes about, it has been seized upon as an argument for restoring such conditions. Reestablish world wide currency convertibility, the advocates of the old gold standard say, and natural forces will do the rest for theory shows that in this situation a flow of money will set in motion its own correctives. Then follows the familiar demonstration of the operation of the gold flow mechanism: declining gold reserves, rising interest rates and falling prices in

the losing country; growing gold reserves, falling interest rates and rising prices in the gaining country; reflux of gold from the lower to the higher market. The strength of this appeal to logic in swaying popular opinion in favour of a certain course of action should not be underestimated. Who has not felt gratification at endorsing a program because "it is logical", implying that one understands its rational motivation? Of course this is not saying that man is a creature of reason following the dictates of his mind alone in determining individual or collective action. All we maintain is that the appeal to his power of logic, gratifying as it is to the irrational element vanity, can and often does prove a very powerful weapon in influencing popular opinion. Where, therefore, in the following essays on the recent monetary history of America, France, Switzerland, Holland, Germany, and England we attack the gold flow theory it is not so much in the desire to checkmate our opponents in an abstract intellectual puzzle as in the hope of weakening the hold of a habit of thought which to us seems no longer capable of exercising a beneficial influence on the evolution of the collective life.

CHAPTER II

AMERICA

> We may well have reached the stage where an era of conscious and deliberate management must succeed the era of undirected natural evolution.
>
> MACMILLAN REPORT

Among the countless explanations which different writers on post war monetary problems have drawn up to account for the failure of the gold flow mechanism there is one which recurs with remarkable regularity throughout practically the entire diversified literature on the subject. It is the opinion that America has seriously impeded the functioning of the international gold standard by its policy of gold sterilization; the United States are the villain of the piece with France a close second. As will be seen in the later pages of this chapter this view contains a considerable amount of truth. But in common with the overvaluation and rigidity theories offered in explanation of England's abandonment of gold payments [1]), the sterilization theory suffers from overpopularization and in this way it has become blurred in outline. Easily comprehensible by the public at large, offering a convenient mould for the man in the street in which to form his understanding of current monetary affairs, these various popular explanations have lost in clarity what they have gained in popularity. The elements of truth which they contain and which properly presented would make for a better understanding of the difficulties with which the gold standard has had to battle, have not been tasted by a public opinion which has no time for careful mastication but must swallow its intellectual food wholesale. It is not a case for blaming anybody, not the financial editors of papers and periodicals who are forced by the swift

[1]) Cf. Chapter VI.

flow of time to serve up their views of current economic events without the seasoning of careful thought, nor the public which equally pressed by the rush of affairs accepts them without close scrutiny.

Standing as close to life as it does, economics, that parvenu among sciences, must put up with this continued desecration of the holy silence of scientific thinking. In fact, it must not only forbear in aloof dignity, but more than that, it must listen carefully ever on the alert to learn from the bedlam of popular controversy which goes on around it. Grown out of just this type of layman's discussion — and of no branch of economics is this more true than of monetary theory; think only of Ricardo's evolution from foreign exchange banker to abstract theorist — the science of economics to keep its vitality must remain in close and sympathetic contact with the vagaries of lay opinion. What it may gain from such contact in fresh viewpoints and realization of changing conditions will amply balance the inevitable irritation of having to listen to some of the more painful perversions of economic truths. And where it finds in the popular discussions certain fruitful thoughts badly formulated and inextricably intertwined with a great deal of obscuring generalization it has the task of separating the chaff from the corn, of redefining the problem and reformulating the answer and once the alloy of logic and fact has been distilled out of the the brew of popular beliefs, to fit the purified views so obtained into its general conception of the structure of economic relationships.

In the present case the need for such reformulation is very urgent for the current explanations of the failure of the gold flow mechanism in America such as the sterilization theory, are for the most part ill-defined and very loosely framed. To reassess their value and to arrive at a conclusion regarding the fundamental factors which have prevented the automatic correctives from bringing about a timely reversal of the gold inflow, we must now consider its causes, its effects, and the circumstances under which it occurred from the time of its inception in 1915 to the world wide collapse of the gold distribution machinery in the autumn of 1931.

* * *

The first period of gold absorption which began in Jan. 1915 and came to a end in the summer of 1917, offers no great difficulties. Its cause, of course, was the highly favorable balance of trade with belligerent Europe. For the three years 1915—1917 the excess of American exports over imports aggregated the colossal sum of $ 7.900.000.000 comparing with about $1.500.000.000 for the preceding three year period. As invisible imports were negligible at this time practically the entire trade balance had to be paid for on capital account, that is, by the return of American securities held in Europe and gold transfers. The result was that when in the summer of 1917 the gold flow dries up, the country had imported $ 1.222.000.000 since Jan. 1915 and the monetary gold stock had risen from $ 1.822.000.000 to $ 3.137.000.000 or more than 70%. The answer to the question how this huge influx of gold could come in without setting the redistributive mechanism in motion is self evident. Most of the countries whence the gold came had divorced their currencies from gold, so that drains were not allowed to exercise their corrective influence upon prices and interest rates.

The point is too obvious to require further clarification. It is only mentioned here to draw attention to the need of a clear delineation of our problem. The fact is that in the gold standard literature of recent times one often meets with the statement that the failure of the American gold to redistribute itself has proven that the gold flow mechanism does not "work". Obviously this accusation is too loosely framed. For it is based upon the demonstration that no reflux of gold has occurred *regardless of the fact that during the years when the gold came in, the rest of the world was on a paper basis.* Now it is not hard to see that in a period of world wide inconvertibility the failure of gold to flow back from the only gold standard country is hardly proof of the inefficacy of the gold flow mechanism [1]), since in the remitting countries gold is no longer allowed to turn the wheels of the price and interest rate machinery which under convertible con-

[1]) It is true that when the view attacked in the text has been put forth it is usually meant to refer to the entire period including the gold standard years 1925—1931, and that it is the failure of the gold to redistribute itself in the latter period which is cited in evidence against the specie flow theory. But this distinction between convertible and inconvertible conditions is not always clearly drawn.

ditions operates to maintain an even flux and reflux. In a situation of this kind it is not the movement of gold but the response of credit and prices in the gold standard country which gives the test of the mechanism's functioning. Judged by this test the mechanism seems to have operated quite satisfactorily during the 1915—1917 inflow. In this period the Bureau of Labour Statistics' index of wholesale prices rises from 68 to 114 [1]), bank deposits increase from $ 18.966.000.000 to $ 26.058.000.000 and loans and discounts from $ 15.722.000.000 to $ 20.594.000.000 [2]). It would be a serious mistake, however, to consider this price and credit inflation as the direct result of the gold inflow. What happened is that the enormous demands from the belligerents stimulated production, necessitated an expansion of credit, raised prices and *incidentally* supported the growing credit structure with the gold supplies necessary to allow further expansion without endangering currency convertibility. Thus the gold permitted rather than caused the expansion of credit and the inflation of prices which in all probability would have taken place in any case whether supported by a growing gold base or not.

* * *

With America's entry into the War large scale gold imports from Europe cease. While the trade balance remains highly active, attaining its maximum of $ 4.016.000.000 in 1919, the claims so arising are to a large extent offset by government loans to the Allies and disbursements abroad for the United States forces on foreign soil [3]). Shortly afterwards the government withdraws from the foreign loan market and the void so created is filled by a huge extension of private credits on open account. Meanwhile, the expansion of business, credit and prices within the country continues unchecked despite the fact that no new gold is forthcoming but assisted by the rapid concentration of

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1) Standard Statistics Basebook 1930—31.

2) Selected Documents Submitted to the Gold Delegation of the League of Nations, p. 59.

3) In 1919 government credits to foreign countries reached the figure of $1,781,000,000; the Balance of International Payments of the United States in 1932, p. 32; Department of Commerce.

gold reserves in the Federal Reserve System [1]). The post-war boom is in full swing. And so great is the demand for credit that, notwithstanding the huge increase in gold supplies since 1915 and the liberalization of reserve requirements implicit in the Federal Reserve Act, the System's free gold in May 1920 has dwindled to only a little more than $ 200.000.000 or about ten percent of its total gold holdings. Then comes the reaction. Prices which measured by the Bureau of Labour Statistics index had risen to 247 in May 1920 fall to 179 at the end of the year, bank credit is rapidly liquidated on a wide scale, and towards the autumn gold again begins to flow in. The second period of gold absorption has begun.

What has been the exact origin of the renewed influx of gold is not easy to determine. No doubt a considerable part of it came in in payment of commodity exports, another part in the amortization of short term credits established in preceding years and still another part to seek a safe hiding place in the only free gold market in the world [2]). The following condensed picture of the balance of payments although admittedly subject to considerable error, will help to visualize the situation [3]).

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[1]) S. E. Harris gives the following figures showing the process of reserve concentration in the years 1914—1919:

	Monetary gold stock	Gold Reserves of the Fed. Res.System
	$ 1,000,000	
Nov. 1914	1,835	228
March '17	3,089	938
May '19	3,092	2,188

Twenty Years of Federal Reserve Policy; 1933 p. 346.

[2]) "The gold came to this country primarily because this was the only large country .... with a free fold market" Report of the Committee on Recent Economic Changes in the United States of America. Vol. II, p. 669; 1929.

[3]) J. H. Rogers; America weighs her Gold; 1931.

	$ 1.000.000			
	1921	1922	1923	1924
Trade Balance	+1,976	+602	+254	+899
Other Current Credits . . .	+ 200	+617	+730	+692
Total Current Credits * *	+2,176	+1,219	+984	+1,519
Current Debits.	— 762	—766	—732	—776
Balance on Current Account	+1,414	+453	+252	+815
Long Term Capital Export (net)	—875	—753	+30	—733
Gold Imports	—686	—234	—295	—216

Note that in every one of the four years 1921—1924 the net gold import has been in excess of the current surplus after deducting long term capital exports. For the entire period under review the excess aggregates $ 888,000.000. The conclusion is that in these years a considerable movement of short term capital towards the United States must have occurred [1]). The significance of this influx of short funds will be made clear at a later point.

* * *

So much for the sources of the gold inflow. What were its effects? Again, as in 1915—1917, there is no question of a reflux. As the Federal Reserve Board write in their Annual Report for 1924: "with gold embargoes in force in most foreign countries and the United States practically the only free gold

[1]) Evidently is it impossible to find in these figures an answer to the question whether the inward movement of short term funds represented a repatriation of American balances left abroad or the flight from depreciating foreign currencies. For the former alternative speaks the fact that in 1919—20 the American balance of payments showed an extension of short term credit abroad of only a little less than two billion dollars. The latter possibility is supported by the wellknown fact that the New York market has for many years been a heavy debtor on short term account. No doubt, therefore, both these influences, the repatriation of domestic capital and the flight to the dollar from abroad have been at work at the same time.

market in the world, the movement of gold to this country does not ... give rise to corrective influences working through exchanges, money rates and price levels which tend to reverse the flow" [1]. All that could be expected of the gold flow mechanism under these conditions, therefore, is that without setting in motion the *reciprocal* tendencies in the losing and the gaining countries which in times of convertibility are relied upon to restore equilibrium, it would nevertheless allow the gold inflow to produce its one-sided effect in the United States. Let us see whether it has done so.

Considering its impact upon the country's credit and price structure the relevant figures show the following changes since the beginning of the gold inflow in the autumn of 1920. [2])

	gold imports[3])	Federal Reserve gold reserve	member bank reserves	member bank deposits [4])	member bank loans & investments	commercial paper rate	wholesale price index[5])
	$ 1,000,000					%	%
Sept. 1920—Mar. 1922	+803	+985	— 92	— 900	—2,700	—3.22	—41
Mar. 1922—Aug. 1924	+723	+115	+351	+6,300	+5,000	—1.65	+ 5

What happened in the fist year and a half is on the whole familiar knowledge [6]). The member banks which had become very heavily indebted to the Federal Reserve — in Oct. 1920 their

[1]) p. 30.

[2]) Sources; Annual Reports of the Federal Reserve Board; Standard Statistics Basebook 1930—31.

[3]) adjusted for earmarking

[4]) net deposits subject to reserve requirements

[5]) Bureau of Labor Statistics

[6]) To get a clear understanding of the extent to which the gold flow mechanism has functioned and the obstacles which it has met, the four year period during which the gold movement continued has been split up into two separate parts. The reason is that in the first year and a half the position of the business cycle was such as to render its influence upon the monetary and economic situation of the country very different from that which it exercised in the next two and a half years, when the business curve made a sharp about-face. The slipshod method of judging the mechanism's efficacy or lack of efficacy by measuring the changes in credit, interest rates and prices from the inception of the gold movement, when the business cycle was just entering the downward phase to its end at a time of "normal" business activity, must obviously lead to a very distorted view of the actual relationships involved.

borrowings reached the figure of $ 2.782.000.000 — turned the new gold over to the Reserve Banks in repayment of their debts at these institutions. The procedure was a perfectly logical one. With prices and business declining rapidly and irresistibly from the unwarranted heights reached in the post-war boom, with liquidation and deflation in complete command of the business community and the business mind, there was not the slightest possibility of using the gold imports to advantage as the basis for further credit expansion. In view of this situation the only profitable use the banks could make of the gold deposited with them was to apply it to the reduction of their large and expensive debts at the Federal Reserve[1]). The resulting increase in the System's gold reserves accompanied by a simultaneous reduction in the note circulation naturally was reflected in a sharp rise of the reserve percentage; from 43.1% in Oct. 1920 it had mounted to 71.1% in March 1922.

Is this rise to be taken as a symptom of gold sterilization? The answer depends on what the term sterilization is supposed to mean. If the accumulation of any Central Bank reserves over and above the minimum cover requirements for note and deposit liabilities is to fall in this category, regardless of the size of the margin and the way in which it has been obtained, then, of course, the present instance must be considered as a flagrant case of sterilization. But there will be few to defend this extreme position. Obviously the maintenance of a certain amount of excess reserves is part and parcel of prudent Central Bank policy, and it may be confidently assumed that it is not this policy of reasonable prudence which the sterilization theorists attack. Their objections are directed not so much against the principle of attempting to guard internal stability by keeping sufficient surplus reserves as against a too rigorous and far-reaching application of the principle. Unfortunately, the criterion of what constitutes an excessive surplus is of necessity a vague one. The sterilization theorists would probably say that the surplus reserves which may justifiably be kept "free", unburdened by note and deposit liabilities and therefore available for export without necessitating a contraction of credit and

[1]) For the two years 1920—1922 the average rediscount rate for the entire system was above 6%.

currency, should not exceed that amount which the Central Bank is occasionally called upon to release to meet temporary maladjustments of the balance of payments. But as we will have occasion to point out in more detail at a later point, the determination of this amount has been rendered practically impossible by the huge increase of the international short loan fund whose movements may at any time create temporary voids in the balance of payments of incalculable dimensions, usually far in excess of those resulting from oscillations of the trade balance against which it was the Central Bank's duty to provide in earlier times.

* * *

To return to the rise in the reserve percentage of 1920—1922 [1]), it is clear that whatever term one wants to apply to this process of growing gold cover, there can be no question of *active* sterilization by the Reserve authorities. What happened is that the member banks *voluntarily and on their own initiative* paid off their debts with the imported gold, thereby automatically raising the System's gold cover while the Reserve authorities remained purely passive. Here again is a point which has not received sufficiently sharp delineation in the sterilization controversy. It should be obvious that there are only two ways in which a Central Bank can *actively* sterilize new gold supplies. It can do so either by selling securities or bills in the open market in an amount sufficient to decrease member bank reserves by as much as the gold imports would have increased them; or, provided the market is

[1]) Those not closely acquainted with the peculiarities of the note backing regulations of the Federal Reserve Act would do well to remember that a high coverage ratio does not always indicate a correspondingly large amount of "free gold", that is, gold which can be exported without necessitating any change in the Reserve Bank's liabilities. In fact, the situation has arisen, notably in 1932 when it was shortly afterwards remedied by the Glass-Steagall Act, where despite gold reserves of double the legal minimum the "free gold" has declined to uncomfortably low figures. The explanation of this apparent anomaly lies in the provision which requires that Federal Reserve notes shall be at least 40% covered by gold and *for the remainder* by commercial paper. This means that in a period of easy money when the member banks are generally out of debt at the Reserve, the latter's supply of bills eligible for note backing may run so low that it represents no more than a fraction of the notes outstanding. Then, since the notes must be covered 100% by bills plus gold, gold must go to fill the deficiency created by the declining bill holdings so that with, for instance, a supply of bills equalling only 20% of the notes outstanding, the remaining 80% must be covered dollar for dollar by gold.

"in the bank", by raising the discount rate to such a figure as will induce the banks to use the gold in paying off their indebtedness at the Central institution instead of adding it to their reserve balances. In the present case there is no evidence that the Federal Reserve has done anything of the kind [1]). Where the Central Bank refrains from such offsetting sales or rate manipulation it can only sterilize the gold negatively and partially. That is, by remaining passive and refusing to encourage a maximum utilization of the gold base which it could promote by lowering its discount rate, or by buying securities in the open market and increasing member bank reserves directly, it can prevent the new addition to its gold stock from supporting more than an equivalent amount of new note and deposit liabilities. Full hundred percent sterilization is, of course, impossible in this case as the Central Bank cannot acquire any gold without paying for it either in notes or checques on itself.

Summing up the foregoing conclusions and precisions we may say the following. The development of the business cycle during the gold inflow of Sept. 1920 to March 1922 has completely cancelled any of the corrective effects which it might have exercised in more "normal" times. While Central Bank reserves grew by 50%, bank deposits and money in circulation contracted and prices fell like never before. Interest rates were the only ones to behave as they should in a time of increasing gold supplies, but their decline was the result of the business depression as much as of the gold movement. The experience of this period clearly shows the inability of gold movements to crank up the corrective mechanism in the downward phase of the business cycle. As to the alleged sterilization of the new gold, our conclusion is that whatever sterilization in the form of rising excess reserves took place has been purely passive. It too was the direct result of the position of the business cycle and not of any express purpose on the part of the Reserve authorities.

* * *

[1]) It is true that holdings of bills bought in the open market declined by $218,000,000 in this period, but the decrease is offset by an increase of $ 107,000,000 in government securities. Moreover, the decline in bill holdings was allowed to take place not for the purpose of offsetting the effect of gold imports but "reflected both the reduction in the volume of bankers' acceptances... and the larger demand from commercial and savings banks". Annual Report of the Federal Reserve Board for 1921, p. 12.

What effects did the gold inflow have after the turn of the business cycle in the spring of 1922? To find the answer to this question we must return to the credit and price statistics cited at an earlier point. As the situation in the period 1922—1927 is greatly more complex than during the initial year and a half of the gold inflow, however, it is desirable to analyze its effects by separate stages. The first task of such piecemeal analysis is to inquire how the gold imports affected the credit base. The following table gives the answer. In it are shown the changes in basic figures such as Central Bank reserves, commercial bank reserves etc. from the turning of the business cycle in the spring of 1922 to the end of the gold flow in the summer of 1924, and again from the latter date to the beginning of the heavy outflow in the spring of 1927.

$ 1,000,000

	Gold imports adjusted for earmarking	Federal Reserve gold reserves	Federal Reserve holdings of paper bought in open market.	Federal Reserve redis. counts	Member bank reserves
Mar. 1922—Aug. 1924	723	+115	+49	—434	+351
Aug. 1924—May 1927	46	— 45	+ 2	+234	+267
Mar. 1922—May 1927	769	+ 70	+51	—200	+618

The first observation to which the figures give rise is that in contrast with the 1920—1922 period, the gold imports have largely failed to find their way into the Central Bank's reserves. While net imports between March 1922 and August 1924 total $ 723.000,000 the gold reserves of the Federal Reserve System increase by no more than $ 115,000,000. The explanation is simple. What has happened is that the Federal Reserve has sent by far the largest part of the new gold offered to it back into circulation, not in the form of gold coin but in the form of gold certificates which, being a hundred percent covered by gold, may be regarded as part of the actual gold circulation. Here we meet with the first act of positive if partial sterilization. This time the Reserve authorities do not limit themselves to the negative sterilization which consists in refusing to induce full utilization of the credit

base, but definitely and purposely eliminate the possibility of such utilization in the future by pushing the inflowing gold out into circulation where its credit supporting power is much smaller. It is true, of course, that the Reserve Banks could take the gold certificates out of circulation again and render the gold behind them available for the issue of Federal Reserve notes or the creation of deposit liabilities thus refertilizing it. But the existence of this possibility does not alter the fact that the act of paying for the gold with fully covered gold certificates constitutes express sterilization. The distinctions here made may seem somewhat academic but in view of the nebulous terminology with which the sterilization controversy has been carried on and the confusion of thought which has been its result, it is desirable to define our nomenclature as much as possible. Evidently the gold imports which are put back into circulation do increase the secondary credit base, commercial bank reserves. In this sense there is no sterilization. They do not, however, increase the primary credit base, the Central Bank reserve, and in this sense sterilization indeed occurs.

As reasons for the policy of issuing gold certificates Governor Benjamin Strong, testifying before the Royal Commission on Indian Currency and Finance in London in May 1926, mentioned among other things the desire not to show too large a bulk of gold and too high a reserve percentage which might incite agitation for rapid credit expansion, and the convenience of having a considerable gold circulation from which to draw in times of stress on the exchanges. The validity of these reasons cannot be dwelled upon as this would lead to a discussion of the merits of Federal Reserve policy which cannot enter into the scope of our study. The subject has been extensively covered by more competent writers [1]). The only point that need be noted in this connection, is that the policy of issuing gold certificates was in direct contravention of the principles upon whose observance the succesful functioning of the gold flow mechauism depends. Regardless of whether it was justified or even demanded by the exigencies of internal credit conditions, the positive refusal to let the new gold trans-

[1]) Cf. the works of Beckhart, Reed and Harris.

late itself in a proportional expansion of the primary credit base (and subsequently in a more than proportional expansion of the secondary credit base) could not fail to impair the chances of a proper functioning of the reflux mechanism. Moreover, the motive underlying this specific act of policy, the desire to deprive gold imports of their potentially disturbing effect upon internal credit stability, betrays an attitude on the part of the authorities which is absolutely incompatible with the succesful operation of the international gold standard at any time. The fundamental importance of this essentially modern attitude as a cause of the recent breakdowm and the circumstances which led to its adoption, will be dealt with more fully in the closing pages of this chapter.

That the sterilization of the gold put back into circulation was only partial appears very clearly when regard is had to the course of member bank reserves. Considering the period 1922—1927 as a whole, what has happened is roughly this. Practically all of the gold imported found its way into the Treasury in exchange for gold certificates [1]. With the funds so obtained member banks paid off a further $ 200.000,000 of rediscounts at the Reserve Banks and increased their reserve deposits at these institutions by about $ 600,000,000 [2]. Meanwhile the active intervention of the Reserve authorities on the open market limited itself to an insignificant volume of bill and security purchases [3]. Nor can it be maintained that their discount policy has been such as to force

[1]) Gold certificates in circulation rose from $ 172,000,000 in March to $ 1,004,000,000 in May 1927.

[2]) This description of the paths by which the gold has reached member bank reserves, used because it facilitates the visualization of the simultaneous sterilization of the gold as a primary credit base and its fertilization as a secondary credit base, is naturally somewhat of a simplification. In reality the process has been considerably more complex, involving first the repayment of member bank indebtnesse with the imported gold, then the building up of reserve balances with further gold inflows and finally the sterilization of this gold as a primary credit base which the authorities effected by taking Federal Reserve notes out of circulation and replacing them with gold certificates.

[3]) We are here referring to the net change between the opening and the closing dates of the period under review. The aggregate sales and purchases over the five years have been many times greater of course. It is clear, however, that to find the answer to the broad question whether or not there has been positive sterilization, it is sufficient to compare the *net* inflow of gold with the *net* change in open market holdings, or more accurately, with the net change in Federal Reserve credit outstanding. From March 1922 to August 1927 this latter item shows a decline of no more than $ 113,000,000 compared with gold imports of $ 769,000,000.

a positive full sterilization of the new gold by inducing a drastic reduction of rediscounts and member bank reserves. The following figures show the movement of rediscount rates for the System as a whole and for the New York Federal Reserve Bank separately.

	Average for the entire System	Federal Reserve Bank of New York
	%	
March 1922	4.75	4.50
Average 1923	4.48	4.41
1924	4.11	3.68
1925	3.81	3.41
1926	3.99	3.76
August 1927	3.70	3.50

Just as in the 1920—22 period, therefore, there is in the present instance no trace of the type of hundred percent positive sterilization which consists of offsetting the effect of gold imports upon member bank reserves by purposely contracting the volume of Central Bank credit by means of raising discount rates, open market operations or both. As in 1920—22 the hundred percent sterilization which did take place, as manifested by the $ 200,000,000 decrease in member bank borrowing, originated with the commercial banks and not with the Central Bank. It was probably to a large extent inspired by the generally accepted convention in American banking that "it is illegitimate to borrow continuously from the Reserve institution" [1]). The remainder of the gold imports about $600,000,000 went more or less indirectly into member bank reserves and there formed the basis for a possible expansion of credit many times larger. That it has actually served in this capacity is not doubtful. From March 1922 to the end of the period under review in the spring of 1927, the deposits of all member banks increase by about $ 10,000,000,000 which compared with a growth of reserves of only $ 600,000,000, shows an increase of 17 dollars of deposits for every increase of one dollar in reserves. It is quite clear, therefore, that there can be no question

[1]) H. Reed; Federal Reserve Policy 1921—1930; 1930; p. 30.

whatsoever of any sterilization of the secondary credit base. On the contrary, the huge expansion of commercial bank deposits on the basis of a comparatively small expansion of reserves is rather a case of over-utilization of the credit base than the reverse.

* * *

At this point let us recapitulate the findings of the preceding pages. Consider the operation of the gold flow mechanism as working itself out in three stages, the first being the translation of increased gold supplies into a more than proportional increase of commercial bank reserves; the second, the translation of growing bank reserves into a much more rapidly growing volume of bank credit; and the third, the translation of expanding bank credit into higher prices and lower interest rates. Recall furthermore that the inflow of $ 800,000,000 of gold between Sept. 1920 and March 1922 was entirely absorbed in the repayment of member bank indebtedness, its effect being merely to substitute gold for commercial paper as cover of the Federal Reserve note and deposit liabilities without adding anything to commercial bank reserves. Recall also that the greater part of the second gold inflow, $ 600,000,000 in fact, trickled through to member bank reserves, be it with a certain lag of time, and there formed the basis for an expansion of credit about 17 times as large, but that this addition to member bank reserves was purposely limited to an amount far smaller than that which was legally possible. The conclusion, must be that taking the 1920—1927 period as a whole the mechanism has functioned very poorly in its first stage due partly to cyclical influences, partly to the attitude of the Reserve authorities while in the second stage it has functioned with the utmost efficiency. There remains the question what has been its record in the third stage: the translation of expanding bank credit into declining money rates and rising prices. That question must be taken up now.

* * *

The altogether splendid development of fact-gathering organizations in America makes it possible to choose from a large field of diversified price indices. Thus the figures reproduced below

include only a few of the wellknown price-series. For our present purpose they are amply sufficient, however, as they cover practically the entire range of money values including wholesale prices, retail prices, security prices, wage payments, and rents. In order to facilitate comparison the four series have been reduced to relatives with March 1922 as their common base. The latter month has been chosen as the base period because it marks the turning point of the business curve as measured by the course of wholesale prices, as well as the beginning of the credit expansion whose effect upon prices we are attempting to investigate.

	1 Wholesale Prices	2 Cost of Living	3 General Prices	4 Common Stock Prices
March 1922 .	100	100	100	100
Average 1923 .	108	104	106	109
1924 .	106	105	107	116
1925 .	112	108	109	129
1926 .	108	108	110	159
August 1927 .	108	105	110	185

1 Bureau of Labour Statistics
2 National Industrial Conference Board
3 Federal Reserve Bank of New York; the index is a weighted composite of wholesale prices, retail prices, security prices, wage payments, rents etc. For a detailed description see Recent Economic Changes, p. 632.
4 Standard Statistics' Series of 404 Common Stocks

There is little need for commenting on these figures. The story they tell is simple and a very familiar one. Despite an increase in member bank deposits of close to 50% commodity prices in general only rose from 8—10%. What is perhaps less widely recognized is that while judged by annual averages wholesale prices do not reach their high until 1925, three years after the beginning of the credit expansion, inspection of the monthly figures reveals that wholesale prices have already attained the high for the entire period 1922—1927 in March 1923. Apparently the expansion of bank deposits and credit since that date, which to the end of the period under review comes to $ 7,200,000,000 or an increase of

30% compared with a growth of $ 3,000,000,000 or 14% in the year ending March 1923, has had no inflationary effect whatsoever on the course of commodity values.

The generally accepted explanations of this failure of the credit expansion to work itself out in a more pronounced rise of prices can be summed up as follows. First, there is the view that the growth of credit supplies was "needed" by the requirements of expanding production and trade, in other words, that the increase in M was fully offset by an increase in T. The following figures can be quoted in support of this contention. From 1922 to 1927 the production of primary goods increased every year by an average of 2.5%, the production of manufactured goods increased by an average of 4%, and the ton-miles of freight carried also by 4%. During the same period the volume of bank credit adjusted for changes in prices (that is, after discounting the percentage of increase which may be deemed to have been absorbed by the rise in prices that did take place) grew by an annual average of 4.36%. If these figures which are taken from the Report on Recent Economic Changes [1]), are representative there is indeed little reason to wonder at the failure of the credit expansion to exercise a strongly inflationary influence upon prices [2]).

Secondly, it is argued that the increased volume of bankmade purchasing power has to a large extent been diverted towards the real estate and security markets where a very pronounced price inflation has taken place. This view too is well supported by statistical material, at least for the latter part of the 1922—1927 period for before 1925 no comparable figures are available. From June 30th 1925 to June 30th 1927 total loans of all member banks rise by $ 2,300,000,000 of which only about $ 250,000,000 repre-

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[1]) Chapter 11.

[2]) If the credit expansion did not bring about an absolute price inflation there is good reason to believe that it *did* achieve an inflation of prices relative to costs. In fact, it follows logically from the two data of stable prices and increasing manhour output — in the period 1922—1927 the rate of increase in the manufacturing industries averaged no less than 3.5% per annum — that such relative inflation must have taken place. A comparison of the growth of industrial profits with that of money wages affords circumstantial evidence that this is exactly what has happened. In the years under review the average annual increase of industrial corporate profits comes to 9% compared with 2.8% for money wages. Cf. Gold and Monetary Stabilization, Lectures on the Harris Foundation, edited by Quincy Wright 1932, p. 149; See also Recent Economic Changes.

sents an increase in commercial loans while the remainder consists of a $ 1,400,000,000 increase in security loans and a $ 600,000,000 growth of real estate loans. It is true that not all the loans made on security collateral represent the diversion of bank credit to stock speculation but that a considerable part of them has been so used is hardly doubtful.

What conclusions can we draw from the foregoing as to the efficiency of the gold flow mechanism in its third stage which we defined as the translation of expanding bank credit into higher prices? The answer is twofold. A direct comparison of the credit and commodity price curves would show that the mechanism had jammed completely for after the upswing of the business cycle in 1922—'23 there is hardly a trace of any correlation between the two. More critical analysis of the complex nature of the apparently so simple credit and price curves, however, has done much to weaken the triumphant decision that the quantity theory "has not worked". For it was found that the growth of production and trade were such as to render possible a very large expansion of bank credit without any likelihood of inflationary repercussions upon prices. In addition we saw that an incalculable but without doubt significant part of the credit expansion was brought to bear directly upon the security and real estate markets where it exercised an extremely pronounced inflationary influence. Taking these modifying circumstances into consideration there remains little ground for the confident assertion that the failure of commodity prices to rise more sharply has proven the fallacy of the truism that there is a functional relationship between MV and TP. On the contrary, the behaviour of prices seems fully in accord with the principles of sophisticated quantity theory. And since the third stage of the gold flow mechanism is nothing but an application of the quantity theory one might be tempted to conclude that in this stage at least the mechanism has functioned properly for once.

Unfortunately, however, the superficial logic of this reasoning hides a non sequitur. For the third stage of the flux and reflux theory is based on the assumption of a *very simplistic* quantity theory implying a direct dynamic relationship between the volume of money and the level of *commodity* prices. It is clear, therefore, that

the conclusion that the American experience seems to bear out the validity of a *sophisticated* quantity theory is not sufficient to establish that the gold flow mechanism has operated successfully in the third stage. To do so it would have to be shown that the expansion of bank credit in so far as it was not offset by a growth of production had worked itself out in a rise of *commodity* prices instead of in the rise of security prices which actually occurred and which although fully compatible with the principles of sophisticated quantity theory, produced effects upon the balance of payments and gold movements directly opposite to those upon which the realization of the flux and reflux theory depends.

* * *

Having analyzed the relation between the gold inflow and commodity prices there remains the question of its effect upon interest rates. As we have seen at an earlier point, during the 1920—1922 gold inflow the course of interest rates was sharply downward which is what one would have expected under a normally operating gold flow mechanism. We concluded at the time that the development of the business cycle from its point of high tension in the autumn of 1920 to the subsequent business lassitude in the beginning of 1922 must have played an equally important part in determining the course of interest rates as the gold inflow itself. The fluctuations in the price of money from March 1922 to May 1927 are shown in the following table.

		Commercial Paper Rate	Bankers' Acceptance Rate
		%	
March	1922 . . .	4.78	3.73
Average	1923 . . .	4.98	4.10
	1924 . . .	3.91	2.98
	1925 . . .	4.03	3.28
	1926 . . .	4.24	3.60
May	1927 . . .	4.13	3.63

It is quite evident from these figures that in this period too the influence of the business cycle upon the trend of interest rates has

been very powerful and probably more so than that of the gold movement. Witness the rise in 1923, a year of sharp business expansion followed by the fall in 1924, during which two years gold continued to come in in a steady stream. Considered over the entire period, however, the behaviour of money rates does not seem to clash with the tenets of gold flow theory. For when it is remembered that that part of the gold inflow, about $ 600,000,00 in all, which was allowed to reach commercial bank reserves was fully absorbed by a credit expansion which in turn was largely justified by the rapid growth of production and saving, then it is clear that there is equally little reason to expect the interest rate corrective to function as to expect a rising price trend. In fact, once it is established that the effective part of the gold inflow, the part that has reached bank reserves, and fertilized bank credit, is not such as to be able to set in motion the price corrective, it is a foregone conclusion that it will be equally incapable of starting the interest rate corrective. It is not hard to see why this is so. Obviously the functioning of the price corrective presupposes a certain credit inflation, but equally obviously credit inflation presupposes an initial period of declining interest rates, since in most phases of the business cycle the process of credit inflation must be cranked up by interest rates low enough to invite a greater demand for credit. In the present instance we found that the effective gold inflow did not raise prices, largely because the expansion of credit based upon it proceeded apace with the expansion of trade. Since it is clear that such parallel growth of credit and production means that the increased supply of credit made possible by the effective gold inflow is met by an increased demand it follows that interest rates will not be affected. [1])

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[1]) It might be argued that the gold inflow by allowing an expansion of credit to accompany the increase of business activity without any material rise of money rates, has contributed towards the growth of productive enterprise and that this growth of capital by lowering its yield has diverted a part of the investor's demand from domestic to foreign issues. In this way a case might be made out to prove that the gold inflow has indeed set the long term interest rate corrective in motion. But obviously it is not much of a case. For if by contributing to the growth of productive enterprise and capital investment the gold inflow had indirectly helped to render domestic investment less attractive it would first have to be shown that the earnings of American capital had declined. Of course the opposite is true. As stated at an earlier point, industrial corporate profits increased by an average of 9% per annum. But it *is*

There would be good reason to carry our analysis of the record of the gold flow mechanism no further than the spring of 1927. For by that time the steady accumulation of gold which is the most direct evidence of its inefficient functioning comes to a close. In fact, strictly speaking, the upward trend has already flattened out by the summer of 1924. Since then occasional gold gains have been largely balanced by losses at other times, so that the net increase in monetary gold supplies from Nov. 1924 to May 1927 is only $ 82,000,000 all of which has occurred in the first four months of 1927. That we have nevertheless extended our investigation of the functioning of the mechanism over the last two and a half years when no net inflows of importance took place, is explained by the desire to see whether perhaps it had begun to operate with a certain lag of time. Having arrived at the end of this period we might well feel assured that everything possible had been done to help the defendant and that the time had come to examine the accumulated evidence and draw our final conclusions. For the sake of completeness however it is advisable to exercise patience a little longer and before drawing up the indictment to review briefly the events of the years 1927—1931. Not that they will be able to throw much fresh light on our problem, for it is quite certain that the main explanations of the failure of the gold to redistribute itself are all clearly evident in the record of the earlier period.

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true that at the same time capital *yields* as measured by the current return on securities did decline. From March 1922 to May 1927 the yield on government bonds went from 4.44% to 3.44%; that on high grade industrial bonds from 5.24% to 4.83% and that on industrial stocks from 6.44% to 5.40%. There can be little doubt, therefore, that before the final splurge of 1928—29 obliterated all considerations of yield in the mad hope for capital gains, the decreasing returns on home investment helped to sway a part of the investing public in favour of foreign securities. Here then we find that for a short period of time the gold flow has set in motion the interest rate corrective, not by lowering *money* rates and causing an outflow of short funds — in the 1922—1927 period New York's net indebtedness on short term account increased almost continuously — not by bringing about lower capital *earnings*, but by the inflation of security prices and the resultant decline in yields to which it gave rise. But while it is true that in this devious manner the reflux mechanism has functioned for a time, it nevertheless has been totally unable to bring about the permanent redistribution of gold reserves claimed for it in theory. On the contrary, for after an initial period of successful operation it developed what Prof. Rogers aptly calls a "kickback", when in the course of 1928 the continued rise of security values which in its earlier stages had served to bring about an *out*flow of American funds, began to produce exactly the opposite effect of attracting foreign funds to America, thereby giving rise to renewed gold *in*flows.

The movement of gold in and out of the United States from the spring of 1927 till the autumn of 1931 when half the world has slid off the gold standard, shows three different phases. The first of these is marked by an outflow of about $ 500,000,000 between May 1927 and June 1928. As is well-known this movement occurred in direct response to the policy of Central Bank cooperation which came to a head in 1927 and led to the lowering of American discount rates for the express purpose of assisting Europe in restoring and maintaining adequate gold reserves. Inasmuch as it was the increased differential between American and foreign money rates and the concomitant decline of American security yields which led to the heavy gold outflow, the mechanism indeed functioned satisfactorily for a time. The effect of the gold loss upon internal credit conditions was more than offset by an extension of Federal Reserve credit, first actively by open market purchases, later, after the end of 1927, passively by increased rediscounting. That the Reserve should attempt to cancel any repercussions upon member bank credit is quite comprehensible in view of the fact that the gold drain was desired by the authorities for considerations of international credit stability and did not, therefore, require the application of correctives.

The second phase lasts from the end of 1928 till the autumn of 1929 during which time gold flowed back to the extent of close to $ 250,000,000. The cause of this inward movement was the attraction exercised upon foreign capitalists by rising stock prices and high money rates in New York, of which two influences the former seems to have been by far the more powerful [1]). Again the cry of sterilization was raised. In so far as the Federal Reserve did actually prevent the incoming gold from bringing about an expansion of commercial bank reserves there was indeed some ground for the accusation. The figures show that it has done so, for throughout the inflow member bank reserves not only fail to grow but even decline from the point reached before the inflow began. This is the first time that we can speak of positive 100 percent sterilization. The motive which led the Reserve authorities to adopt this policy was, of course, the desire to check the speculative mania on the stock exchanges.

[1]) "Whatever evidence is available does not point to a net influx of short term funds. Foreigners on the other hand, probably purchased in 1928—29 close to a billion dollars of long term securities in New York". Harris loc. cit. p. 483.

The third and last phase which runs from the beginning of 1930 to Sept. 1931, shows net gold imports of about $ 675,000,000 "most of which was from Canada, Latin America and the Far East and reflected the continued fall in raw material prices and the pressure of foreign indebtedness" [1]). Up to April 1931 the story of what happened to the gold is not very different from that already told when dealing with the 1920—1924 inflow. Of the net imports of $ 368,000,000 about $ 145,000,000 was used by the member banks in paying off rediscounts at the Federal Reserve. Another $ 135,000,000 went to strengthen member bank reserves and most of the remainder was paid over to the Reserve in exchange for additional note currency which increased by about $ 50,000,000. As in 1920—1922 money rates fell to very low levels [2]) but the downward trend of the business cycle effectively prohibits the low rates from exercising any effect upon member bank credit or prices both of which decline steadily. For a time the gold flow mechanism still operates to some extent inasmuch as the rapid decline of money rates to the absurdly low levels of 1930—31 contributed towards the efflux of short term funds. But the very fact that gold itself did not flow back is sufficient evidence that the corrective operated too feebly to be of any real use. Of positive sterilization there is no more evidence than in the years 1920—1922. In April the situation takes on a different aspect. With the spread of bank failures currency hoarding grows rife with the result that the $ 300,000,000 of gold imports failed to bring about any increase of member bank reserves which were depleted by the demand for notes as fast as gold importers could fill them up. Again no trace of sterilization by the authorities. On the contrary, for far from being accompanied by restrictive open market operations the gold inflow is supplemented by Reserve purchases of bills and securities totalling $ 230,000,000 in the five months following March. But so powerful have the cyclical disturbances become that even this additional support fails to effect any increase in member bank reserves. For a while part of the machinery had still spluttered along as gold imports

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[1]) Annual Report of the Federal Reserve Board for 1931 p. 10.

[2]) In May 1931 the rediscount rate of the New York bank had declined to 1.5% from 6% in Oct. 1929.

continued to increase member bank reserves. In the summer of 1931 even this feeble motion stops. The international gold standard is dead.

* * *

Conclusions

At an earlier point in this chapter we spoke of economic analysis as a process of distillation. The preparatory stages of this process have now been completed. The raw material of economic history, a compound of fact and legend, has been crushed and ground in order to separate the one from the other. Subsequently the conglomerations of "clean" facts so secured which were found clustered around a core of time affinity have been broken up again in order to rearrange the component particles in logical order. The result is that we have in our intellectual smelting pot the following crystallizations of fact regarding America's experiences with gold movements.

The 1915—1917 inflow of gold seems to have operated with a fair degree of normality judging by the scant evidence of the chaotic war years. The opposite is true of the next period of heavy gold inflows lasting from 1920 to 1922, when the development of the business cycle renders the redistributive mechanism totally inoperative. The record of the five years following is not very much better. Although the mechanism seems to function properly in the second and third stage, it cannot achieve its aim because of its partial failure in the first stage, that of the translation of gold imports into a proportional expansion of the primary credit base and a more than proportional expansion of the secondary credit base. The cause of this failure was seen to lie partly in active intervention of the Central Bank authorities (the issue of gold certificates) partly in their comprehensible refusal to force full utilization of the increasing gold supplies. In 1928—1929 the pulse beat of the redistributive mechanism grows progressively weaker. Not only does it fail to work in the first stage, due this time to positive sterilization, but it also develops a "kickback" in the last part of the third stage, (the attractive effect of rising security prices upon capital movements). Finally, in the closing years of our survey, cyclical developments bring the gold flow machinery

to a dead stop, first by jamming it in the third stage, then in the second stage and finally in the first stage. These are the fact combinations which must now be melted together to produce the fundamental explanation of the failure of the gold flow mechanism over the period as a whole, an explanation which is not only capable of showing why the mechanism has failed to work in America in this particular instance but why that mechanism is bound to fail anywhere at any time.

* * *

The following declaration of the Federal Reserve Board, which appears in the Annual Report for 1916, gives the answer to the question where this explanation must be sought; "The Board is not.... unmindful that large accretions of gold may induce a rapid and dangerous expansion of our credit structure.... the Board had been impressed with its duty to control as far as possible conditions resulting from either an excessive inflow or outgo of gold". In considering this conception of a Central Bank's duties as one of the fundamental impediments to the smooth functioning of the gold flow mechanism we make our peace with the sterilization theory which we have attacked so consistently throughout this chapter. Having divested that theory from its hostile bias and its inaccurate phrasing and having reduced it to the bare statement of fact that *America has purposely refused to make the fullest possible use of her increasing gold supplies* we can now say that *negative gold sterilization has played a major role in vitiating the successful operation of the gold flow mechanism.* Other influences such as that of the business cycle in preventing the gold inflows of 1920—1922 and 1930—1931 from exercising an effect upon member bank reserves, may offer a more direct explanation of the mechanism's failure but they do not go to the root of the problem. Had there not been the deeper cause mentioned above, the mechanism might still have worked as with the upswing of business the new gold could have been allowed to exercise its full legal effect upon bank reserves, credit, interest rates and prices. That it was *not* allowed to do so and that it was thus prevented from setting the redistributive correctives forcefully in motion was in ultimate instance due to the view of the Reserve authorities that gold movements should not be allowed

to disturb internal credit and price stability. It is this view and its realization in practice which clashes directly with the principles of the flux and reflux theory and it is this same view, therefore, which more than anything else explains why that theory has failed to realize itself.

It hardly needs repetition that these statements do not in any way imply criticism of the Federal Reserve's gold policy. In fact, decisive judgment on this issue is per se impossible. Evidently the evaluation of any act of practical policy whose qualities cannot be tested by ethical standards, must be based upon considerations of expediency and the expediency of such an act can, of course, only be measured in comparison with its ideal. But Federal Reserve policy as well as that of any modern central bank is faced with two conflicting ideals. Consequently a judgment of the expediency of any particular act or policy is practically always bound to be both positive and negative at the same time. Judged by one ideal, the maintenance of internal stability, a certain act may be highly commendable while judged by the other ideal, the maintenance of international monetary solidarity, it may be thoroughly condemnable. That the two ideals are practically always incompatible will be clear to all but the most dogmatic disciples of the Manchester School. In this field as in so many others the theorem of the natural identity of the private and the collective interest, in casu the national and the world interest, has turned out to be completely out of touch with the hard reality of modern times. Indeed, so strong is the antagonism between the two ideals that it has been made the cornerstone of a very powerful school of monetary thought which bases its demand for the abandonment of gold, and with it stable exchanges and international monetary solidarity, on the unanswerable plea that you cannot have your cake and eat it, that you cannot hope to have both international monetary solidarity and permanent internal stability. No more need be said, therefore, to show that the judgment of modern Central bank policy must remain a matter of taste dependent for its favourable or unfavourable outcome, solely upon the critic's preference for one of the two conflicting ideals of monetary management.

It is useless to debate whether the Reserve gave more weight in the determination of its gold policy to internal or international considerations. The point is that *it gave some weight to considerations of internal stability and that in so doing it automatically impaired the chances of realizing the other aim of continued international solidarity and of saving the gold flow mechanism which is its instrument.* But since we are here attempting to discover the reasons why the mechanism which functioned more or less satisfactorily before the War has been such an utter failure in post-war times, the question will rise whether the incompatibility of internal price stability and international monetary solidarity can be considered as an essentially modern problem and if not, how it can serve as an explanation of the recent breakdown. The first question must be denied, of course. The two aims of internal stability and international solidarity have always been incompatible and always must be under a system of inter-state anarchy. For as should be thoroughly familiar, international solidarity, meaning stable exchanges and free gold movements, is dependent on the rapid adaptation of price levels and interest rates in one country to those in the outside world. How is it, then, that this incompatibility which is as old as the international gold standard itself should not have interfered with the smooth operation of the gold flow mechanism in pre-war times?

The most superficial explanation is that, while in former times the logical incompatibility of the two aims was as pronounced as it is today, it was less harmful in practice for the simple reason that in general only one of the two conflicting aims was pursued. That is, the importance attached to maintaining international monetary solidarity far overshadowed considerations of internal credit and price stability, not so much because the world was more internationally minded as because of the belief that the advantages of stable exchanges amply made up for the sacrifice of internal credit autonomy necessary to maintain such stability. Gold flows were allowed to produce their effects upon internal conditions and the world played the "gold standard game" accepting its benefits and willing, perhaps inconsciously, to pay their price. This willingness no longer exists. The post-war era still wanted the benefits of international monetary solidarity but it was not prepared to pay their price either by subjecting

internal credit conditions to the in- or deflationary influence of gold movements, or by sacrificing a part of its independence of monetary action, just as it wanted international political solidarity without paying for it with a loss of national sovereignty. Thus the conflict which in pre-war times had been a logical conflict only, became a practical conflict with the result that the instrument which was asked to perform the miracle of getting something for nothing cracked under the strain [1]).

* * *

There are several factors which can account for the increasing stress put upon the maintenance of internal stability and the consequent attempts to neutralize gold movements and divest them from their disturbing effects upon credit, prices and trade. Among the immaterial forces which have worked in this direction *the growing strength of the nationalist spirit and the spread of monetary business cycle theories* no doubt occupy an important place. It might be objected that the outburst of the nationalist disease comes too late to be able to serve as an explanation of the growing emphasis on credit autonomy. But while this may be true of some Continental countries it is not applicable to the American situation. Any one who has ever come in contact with the real America which lies West of Pittsburgh, knows how thoroughly "insular" the outlook and temper of the American people is and has been. The Hawley-Smoot tariff is the best example of this blind preoccupation with narrow national interests. It is true that the

[1]) The author is quite willing to run the risk of being told that "qui s'excuse s'accuse" in pointing out that there is no contradiction between the earlier part of this chapter where we established that throughout the period under review there have been only sporadic instances of active Central Bank intervention, positive hundred percent sterilization, and the conclusion that negative sterilization is the fundamental cause of the failure of the gold flow mechanism in America. For it should be clear that negative partial sterilization can and does vitiate the flux and reflux process in just the same way as positive hundred percent sterilization, though in a smaller degree, and that the absence of the latter does not therefore, in any way exclude the possibility of the former having operated as a serious impediment to the functioning of the gold flow mechanism. If it is felt that we have overstressed the importance of this factor as an explanation of the American experience, let it be remembered that it is our purpose for each country to emphasize those causes of the mechanism's failure which appear to be founded in organic changes in the economic structure of society; that we are attempting to find in the history of the recent breakdown the guides for future reconstruction. Knowledge alone is not enough; with it must go the will to build again where lack of knowledge has destroyed.

temper of the masses has no direct influence upon the management of the country's monetary policy, which fortunately was carried on by men of a vastly more intelligent outlook. Nevertheless, when we are speaking of the fundamental forces which underlie the change of emphasis from international monetary solidarity to internal stability, it is clear that the political spirit of the masses cannot be ignored.

More important because relating more directly to the actual conduct of monetary affairs, is the second influence mentioned above, the spread of the type of business cycle theory which holds that management of currency and credit can go a long way towards flattening out the oscillations of industry and trade. Especially in America this view seems to have found ready acceptance by the monetary authorities and to a certain extent it has functioned as a guide rule for action. This immaterial factor is closely allied with a material one, viz. *the growing power of central banks*. It is obvious that before 1913 the realization that monetary management might promote stability of credit and prices, could have had little effect upon the actual evolution of America's currency and credit conditions simply because there was no central authority having sufficient power to translate the ambition to maintain stability into reality. But with the establishment of the Reserve System and its development into an all powerful regulator of credit supplies it *did* become possible to carry out such ambitions. Gold movements no longer flowed into or came out of thousands of independent banks [1]) which were unable to escape their automatic expanding or contracting affects but into or out of the mighty Reserve institutions manipulation of whose vast assets was capable of offsetting very large movements of gold. This growing facility of managing the currency and making it independent from gold movements is not peculiar to America alone, although in that country the transition from the decentralized National Bank System to the Federal Reserve System rendered the growth of these facilities more sudden than in other country. Nevertheless, in these countries too the capacity of Central Banks to neutralize gold movements has become much greater in the post-war era largely as a result of the concentration of gold reserves.

[1]) c. q. the Treasury.

The facilities for protecting internal credit conditions from the disturbing effects of gold movements have been further enlarged by the *widespread elaboration of open market technique.* In earlier days the Central Bank could only act upon the money market by manipulating its discount rate, which measure is often only effective after a pronounced lag of time and under certain conditions may remain totally powerless. In recent years, however, the development of open market technique has enabled Central Banks to influence the money market directly and at any time regardless of whether the market is "in the bank" or not. It is not difficult to see that where, as in America, the banks are not supposed to be in debt to the central institution for more than transitory periods, this possibility of active intervention in the open market greatly increases the Central Bank's capacity for neutralizing gold movements [1]).

Finally, there is one other explanation of the tendency towards the neutralization of gold movements; it is the growth of the international short loan fund. The American experience gives a very clear example of how this latter factor has operated to strengthen the Central Bank authorities in their desire to rob gold movements of their natural effects upon interest rates and prices. The facts of the situation are briefly as follows. In the years 1920 to 1924 a considerable part of the gold inflow consisted of short term refugee capital from countries with depreciated currencies. At the same time foreign central banks accumulated large balances in New York for reserve purposes, either by exporting gold to the United States or, as was the case in later years, by leaving the proceeds of loans issued in America on deposit in New York [2]). According to the Federal Reserve Bulletin of June 1927 reserves of foreign Central Banks on deposit in New York came to as much as $ 1.000.000.000, while the

[1]) Thus, in a time of little rediscounting, a Central Bank which has no open market facilities would be unable to neutralize a gold inflow since the fact that the market is not "in the Bank" would render a rise of the discount rate totally ineffective. But when it has such open market facilities it can sell securities and in this way reduce commercial bank reserves by as much as the gold imports increase them.

[2]) From the point of view of the nature of the growth of America's monetary gold stock it is indifferent whether foreigners exported gold to the United States or whether they left the proceeds of foreign loans on deposit at New York. In both cases the American gold stock is either augmented or at least not diminished as a result of an inflow of short term credits.

compilators of the official balance of payment estimates calculate the total of foreign short term bank funds in America at the peak of the 1929 boom at as high as $ 3.000.000.000 [1]). In view of the unwillingness of the Reserve authorities to give gold movements free rein to play upon internal credit conditions it is hardly surprising that they should have been stimulated to still greater caution by the realization that a considerable part of the gold inflow could be recalled at a moment's notice. If an attempt was to be made to protect internal stability from the disturbing effects of all gold inflows, including those coming in on current account and which might be expected to form a permanent addition to the country's gold stock, it was only logical to be all the more careful in rendering harmless those inward movements which originated with volatile capital imports. Thus there was formulated the doctrine that the Reserve's gold reserves were held "in trust" [2]), which found its practical counterpart in the refusal to let the increasing gold supplies exercise their full effects upon money and prices. There can be little doubt that this realization of the precarious nature of the country's gold holdings has been one of the most important factors accounting for the failure to play the gold standard game. And if it is remembered that in recent times not only the specific movement of gold to America but *all* gold movements have to a large extent originated with migrations of short term capital and are likely to continue to do so, it becomes clear that with the extension of statistical knowledge regarding the composition of commercial bank assets and liabilities, Central Banks the world over will tend more and more to follow the American example.

* * *

We see, then, how the pursuit of internal credit stability which in the present state of international anarchy is incompatible with the maintenance of monetary solidarity and which after the war has done so much to impair the successful operation of the gold flow mechanism, is partly attributable to changes in the ideas of men, the reviving force of the nationalist spirit and the spread of

[1]) United States Departm. of Comm. loc. cit.
[2]) Cf. Annual Report of the Federal Reserve Board, 1928, p. 10.

monetary business cycle theories, partly to changes in the material with which man has to work; the concentration of gold reserves, the improvement of open market technique and the growth of the international short loan fund. Which came first, the material change or the ideological change, need not concern us. As always it is a question not of time-causation but of interreaction. Thus the idea of controlling the effects of gold movements upon credit conditions has no doubt contributed towards hastening the concentration of gold reserves necessary to render the idea capable of execution, just as the accidental concentration of gold reserves brought about by the War has aroused the desire to use this accumulation in stabilizing internal credit and prices. Far more important than the question of ultimate causes is the fact that all five elements underlying the growing emphasis upon internal stability appear to be of a more or less permanent nature. Even if one had enough faith in the sanity and moral conscience of mankind to believe that the renascence of the nationalist spirit is no more than the last agonized convulsion of a malodorous mentality whose extinction is long overdue, there remain the four other factors all of which are the outcome of a clear line of historical development and which must, therefore, be expected to continue as a powerful influence in the direction of the neutralization of gold movements. Nor need this be a source of regret. We have gone far enough since the happy-go-lucky days of Adam Smith to recognize that the stability of orderly control is preferable to the "himmelhoch jauchzend, zum Tode betrübt" of unrestrained laissez faire. And more, we are perhaps beginning to evolve an elementary understanding and experimental technique of credit control which some day may put a measure of credit and price stability within our reach. Far from being a reason for despair therefore, the post-war tendency to put more and more emphasis upon the intelligent control of the effects of gold movements is a cause for rejoicing. For it represents the beginning of yet another victory of the ordered forces of thought over the onslaught of "natural laws". Unfortunately, so far the victory has remained of the Pyrrhic type. The gain of internal stability has been paid for twice over by the complete breakdown of international solidarity, which in turn has helped to undo most of the internal stability so laboriously achieved. Does this mean that

the progress already made with Central Bank credit control has been in vain, that all future attempts to achieve internal stability must always end up in wrecking the international gold standard, that the abandonment of either internal stability or of international monetary solidarity with all that goes with it is the only solution? Indeed not. For as we have repeatedly stated, internal control is only incompatible with international solidarity in the absurd state of affairs where every country is free to play its own monetary game, thus forcing others to suffer its effects upon their own credit and price levels at the risk of breaking monetary contact with the rest of the world and incurring the penalty which such action may involve. It is only natural that in this state of anarchy the attempt of nations to tie themselves together with a golden thread can only be successful when each is ready fully to yield to any pull from outside, and that the resistance to such outside influences which credit control implies must sooner or later snap the thread. If monetary solidarity is to be maintained, amidst the chaos of absolute sovereignties, if the members of the commonwealth of nations desire to live together with the maintenance of a common monetary standard as their *only* tie, then they must resign themselves to suffering the cruel laws of the jungle where might is right and force the ultima ratio, and they must renounce all hopes in this atavistic atmosphere to enjoy the benefits of such products of civilization as credit control. Those can only be had when the peoples of the world recognizing the historical necessity of international integration, set about to hasten this inevitable process by introducing in their relations to the other members of the world community the same standards of moral and intellectual progress as in former centuries have enabled them to build their present national states.

CHAPTER III

FRANCE

> Das Verständnis zwischen Theoretikern und Praktikern würde sehr erheblich anwachsen, wenn die theoretische Darstellung die Reibungen und ihre Bedingungen als solche in die Theorie mit einbezöge.
>
> Reichskanzler LUTHER

"Let the French take their gold and go to hell with it". In these dignified words one of America's legislators has given expression to the feelings of irritation, envy, and moral wrath which the French gold accumulation has aroused in the breasts of politicians and the general public all over the world. Not only in the United States but in England and Germany, even in those countries which have not suffered a drain of reserves towards France, the spectacle of gold piling up in Paris has been greeted with exclamations of amazement and disgust at the greed, the perfidy and the immorality of the French. That politicians and the uninstructed public should have indulged in the joys of moral indignation is not surprising. To the simple-minded there is always something suspicious in somebody else's good fortune, especially when that somebody else is a foreigner. But it is a reason for surprise if not for despair that not only the lay public and its representatives but also those whose duty it is to see reality with the clear vision of the mind's eye rather than through the haze of instinctive prejudice, have on occasion joined in the popular clamour against France's wickedness. The daily press has probably been the worst offender in this respect, but it at least might with some semblance of pragmatic justification claim to be exempt from the requirement of impartiality. Not so those scientific and semi-scientific recorders who,, unhampered by considerations of advertisers' susceptibilities, may and must be expected to present the truth and nothing but the truth free from

the obscuring trimmings of patriotism and national bias. Their failure to do so, appearing in the perhaps unconscious attempt of some writers to show the French gold accumulation as largely due to base political motives, constitutes a direct violation of the sacred duty of all scientific observers to listen solely to the dictates of reason at the exclusion of all else.

The author recalls a striking example. On a congress of economists held in Boston in the autumn of 1931, an economist of high standing, member of the faculty of one of America's oldest and most famous universities, discussed the world's contemporary monetary history. For a while all was well and disinterested science reigned supreme. Figures were quoted, graphs shown while the voice of the speaker continued in the even dispassionate tone proper to a scientific discourse to elucidate their meaning. But with the approach to the events of the summer and autumn of 1931, in particular the Hoover moratorium and the heavy drain of gold from America, a note of resentment crept in. Figures and graphs were discarded as arguments and instead, mirabile dictu, André Siegfried's book "America Comes of Age" came onto the scene. We shall not try to render either the tone or the phraseology of what followed. Enough to say that the speaker launched into a violent denunciation of Europe in which he vented his anger against a continent which, after blithely accepting the benefits of the purely altruistic Hoover moratorium, was so devoid of all sense of gratitude that it promptly proceeded to try and force America off the gold standard, and which on top of all that produced books with insulting titles. When one of those present suggested in the discussion which followed that the Hoover moratorium might have been inspired by considerations of enlightened self-interest and that perhaps the epidemic of bank failures might have had something to do with the foreign withdrawals, he was promptly silenced with the accusation of being an Anglophile. As to the reference to Siegfried's book, its connection with the topic under discussion has not been made clear to this day.

Such is the power of patriotism in blinding the eyes of even those whose very duty it is to set against the political passions of the public the cool judgment of disinterested observation. It is not without good reason that Julien Benda in his penetrating

study "La Trahison des Clercs" speaks of our time as "le siècle de l'organisation intellectuelle des haines politiques". Fortunately there are some left to cry in the wilderness, ready to denounce national "truths" in faithful allegiance to the supreme cause of universal truth. Thus a number of the more serious studies of the French gold accumulation are agreed, regardless of the nationality of their authors, in rejecting the majority of the popular charges against France as unfounded in fact. Probably the best and most considered comprehensive judgment of France's culpability in aggravating the maldistribution of gold is contained in Sudhir Sen's book "Die Goldbewegungen nach Frankreich in den letzten Jahren" which is strongly recommended to those anxious to clear their minds of the popular fallacies surrounding the French gold absorption. In view of Sen's well-reasoned acquittal there is no need for us to deal with these fallacies in any great detail. Apart from an occasional precision of terminology therefore, we may limit ourselves to a consideration of the facts and to the attempt to determine from them why the gold flow mechanism has failed to work. Let us warn the reader, however, that far more than when dealing with America or any of the other countries to be discussed in later chapters, we will have to rely on the dry language of statistics to provide an answer to our enquiry. And not only will the method of investigation tax the reader's patience but also the results so secured are likely to appear but a meager reward for his pains. The reason is that in contrast with the American, Swiss, German and English experiences which show the failure of the mechanism as being largely due to organic changes in the structure of post-war society, the record of the French gold inflow illustrates certain obstacles to the smooth operation of the mechanism which are not particular to modern times but have also been present in earlier days. If in view of this fact we cannot hope to find in the analysis of the French gold absorption further support for our contention that the mechanism which may have worked in the past cannot be relied upon to do so in the present because the past is radically different from the present, this does not mean that the French case has no value as evidence against the workability of the old gold standard. On the contrary. For this case will be all the stronger if, in addition to the demonstration of organic changes

vitiating the gold flow mechanism it also includes an exposé of some of the more superficial and accidental resistances with which the mechanism has always had to battle in the past and which render it incapable of securing the smooth frictionless flux and reflux which our exacting world shall demand of it in the future.

* * *

In attempting to account for the failure of the French gold inflow to reverse itself it will be helpful to start out with a consideration of the circumstances which gave rise to it .That is, we have to regard the factors which enabled France to maintain an active balance of payments without which the gold inflow could not have taken place [1]). As no official compilation of the French balance of payments exists the data presented in the following pages have been taken from the annual estimates of Pierre Meynial, published in the Revue d'Economie politique. As always the figures must be taken merely as an indication of the trend of national payments and receipts and not as representing their magnitude with any degree of accuracy. In his resumé of pre-war conditions Meynial comes to the conclusion that before 1914 France regularly had an active balance of payments, that is, her net credits on current account enabled her to absorb a certain amount of gold as well as to extend her foreign investments [2]).

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[1]) To avoid confusion of thought it should be kept in mind that strictly speaking the term "active balance of payments" is a contradictio in terminis. For the balance of payments being in effect nothing more than an accounting of the way in which a country's foreign obligations have been met or vice versa how its credits have been obtained, must necessarily always balance and can therefore never show a credit or a debit surplus. For the sake of facilitating the discussion, however, the balance of payments will here be taken to refer to international payments on current account only. In this way the balance will be considered active whenever current credits exceed current debits, thereby leaving a net claim on foreign countries which must either be collected in gold or converted into long or short term investments. Conversely the balance will be said to be passive when there is a net debit on current account necessitating gold exports or foreign borrowing. It should be very clear that this way of presenting the figures has no practical significance. To consider all capital payments as the residual element following on and conditioned by the state of the current account is obviously no better than an intellectual simplification of what is in reality an extremely complex and timeless process.

[1]) For 1913 he estimates this net credit at about one billion francs of pre-war parity. Apparently this had been the normal state of affairs for some time, as Meynial points out that "la balance de 1913 donne bien le type des balances françaises des comptes d'avant-guerre" Rev. d'Econ. pol. Jan.-Febr. 1925.

With the outbreak of the War the situation is quickly reversed; the desperate need for raw materials of all kinds can only be met by contracting loans abroad and by the export of gold, so that by the end of 1918 France had not only lost frs. 2,438,000,000 of metal but in addition had increased her foreign indebtedness by about frs. 20,000,000,000. For two years after the war the balance of payments continues passive and large amounts of foreign capital are imported mostly in the form of short-term loans of which Meynial estimates to be outstanding at the close of 1920 a total of frs. 14,800,000,000. But from then on things begin to mend. The import excess falls sharply, foreign tourist expenditures augment at a rapid rate, soon reparation receipts begin to grow and as a result France once again becomes a capital exporting country. That is to say, it starts paying off out of current income its long and short-term indebtedness abroad. By the end of 1924 practically the entire short term debt has been wiped out [1]).

The broad lines of development of France's international position since 1924 can best be seen from the following condensed picture of the balance of payments [2]). By adding to the net balance

	fr. 1000,000,000.						
	1925	1926	1927	1928	1929	1930	1931
Net Current Balance	10.5	16.2	12.4	12.4	7.8	5.3	−1.7
Gross Capital Imports		3.5	3.4	.1	.2		
Total Credits . . .	10.5	19.7	15.8	12.5	8.0	5.3	−1.7
Net Gold Imports .		.6		6.4	8.5	11.7	18.5
Long Term Investment & Amortization		2.5	6.5	.9	1.2	4.5	13.8
Invisible Investment	10.5	16.6	9.3	5.2	−1.7	−10.9	−34.0
Total Debits . . .	10.5	19.7	15.8	12.5	8.0	5.3	+1.7

[1]) "L'étude de la balance des comptes en 1924 montrera que ces crédits à court terme ont dû être remboursé à peu près en totalité durant cette année". ibid.

[2]) La balance des Comptes: Annual Reviews in the Revue d'Econ. politique 1926—1932.

on current account the amount of gross capital imports a figure is obtained representing France's claims abroad. The second part of the table shows how these foreign claims have been used. A part has been collected in gold and another part has been expended in the purchase of long term securities abroad. The remainder — after allowing for error — which cannot be accounted for by any specific debits on the balance of payments and which is here termed invisible investments, must represent the movements of new short term credits abroad; deposits in foreign banks, call loans in foreign markets, purchases of securities on foreign exchanges etc. Where this last figure is prefixed by a minus sign this means, of course, that there has been an inflow instead of an outflow of short term funds.

The first three years of the period for which figures are shown exhibit much the same characteristics; large credit balances on current account, no gold imports to speak of, and a relatively minor volume of long term investment abroad. Of a total favourable balance of frs. 46,000,000,000 for the three years, only frs. 9,600,000,000 is accounted for by visible foreign investment, repayment of foreign debts and gold imports. The remainder amounting to no less than frs. 36,400,000,000 has been left to accumulate abroad in one form or another [1]). That these balances were allowed to accumulate abroad in short term investments instead of being either permanently invested or collected in gold, is explained by the disordered state of the French currency. The latter alternative was eliminated by the depreciation of the franc and the former by the prohibition upon capital exports and the still fresh memories of the huge losses suffered in foreign securities during and after the War.

In 1928 the trend of France's international account takes a decided turn. The net credits on current account diminish steadily and by 1931 a debit balance appears. Responsible for the

[1]) A more familiar way of putting it is to say that this sum of frs. 36,400,000,000 represents French capital sent abroad to escape the depreciation of the national currency. The difference in phrasing can do little to change the realities of the situation, however. Whether one says that exporters leave the proceeds of their sales abroad in foreign short-term securities, bank deposits etc., or whether one prefers to speak of French capitalists buying up commercial bills in order to export their capital, the essential fact is that the countervalue of frs. 36,000,000,000 worth of goods, services, interest receipts etc. has been left standing in foreign markets and in foreign currencies to the credit of French beneficiaries.

"unfavourable" development of the balance of payments is the reversal of the trade balance which shows a deficit of frs. 11,778,000,000 in 1931 against a surplus of frs. 1,875,000,000 in 1927. And while the annual excess on the credit side of France's international ledger declines year by year, the collection in gold of these and previously established credits proceeds at a growing pace. In 1928 gold imports of frs. 6,400,000,000 still leave a part of that year's foreign income[1]) to accrue to the large amounts already accumulated in the preceding three years. In 1929 just about the year's entire income abroad is brought home in the form of gold, while in 1930—1931 the total foreign income of frs. 3,600,000,000 is collected in addition to a withdrawal of frs. 26,600,000,000 of previously established credits.

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From the point of view of the theorist the most striking development in France's international position is the continued piling up of large surplusses on the balance of payments in the years 1925—1928. When it is asked whether this process which laid the basis for the gold inflows of later years constitutes a negation of the principles of gold flow theory, two answers are possible. If it is held that it was the depreciation of the franc and the flight of capital resulting from it which gave rise to these surplusses, then the theory scores a complete victory. The flight from the franc depresses the rate of exchange, stimulates exports, checks imports and in this way alters the balance of trade until the annual transfer of capital is effected entirely in goods and services, a process which can continue as long as the export of capital lasts without producing any correctives in France or abroad. Thus the classical theory of foreign lending under inconvertible conditions could be completely vindicated [2]). But there are good grounds for doubting the validity of this interpretation of the origin of France's active balance of payments, such as the fact that the balance turns in favour of France several years before the violent fluctuations in the exchange rate begin. Consider then

[1]) The word income is here used in its literal sense, not in the economic sense.

[2]) For a clear statement of this branch of the theory of capital movements, see Taussig's "International Trade", Chapter 26.

the alternative supposition that the accumulation of balance of payment surplusses was due to non-economic factors; the growth of reparation receipts, the attraction of French life and culture for American tourists, the springing up of a new or increased demand for French luxuries, a change in tariff policy. Does the continuance of surplusses arising in this fashion constitute a negation of the principles of theory? Not necessarily. Only if a part or all of the annual surplus had been repatriated in the form of gold would the mechanism have been set in operation which by contracting the volume of exchange media abroad might be expected to alter prices and change the balance of trade to such an extent that the French credit balances would disappear. And even then the mechanism would only have operated abroad, since the severance of currency and credit from gold in France would have prevented the reciprocal effect from making itself felt. Actually, of course, the inconvertibility and depreciation of the French currency eliminated any and all motives for repatriating the foreign balances and consequently not even the onesided effect abroad could be produced.

Whether it is the export of capital or the operation of non-economic factors, therefore, which turned the balance of payments (and it is obvious that it was a combination of both these sets of circumstances) the continuous accumulation of favorable balances in the years 1925—1928 cannot be said to form a solid argument against the realism of gold flow theory. It is only when we regard the *effects* of the gold inflow instead of its causes that the contradiction between theory and practice becomes apparent. To understand this failure of the gold flow to reverse itself it is necessary to examine its effects upon those elements in the French economy which according to theory should have reacted in such a fashion as to lead to an ultimate reestablistiment of equilibrium; they are, first, the volume of currency and credit, second, the level of interest rates, and third, the level of commodity prices.

* * *

As the theoretical effect of an inflow of gold or an inflow of foreign exchange should be exactly the same [1]), it is at the de

[1]) At least it should be so in the receiving countriy. In both cases the currency

facto stabilization of the franc in December 1926 when France adopted what in reality was a clear case of the gold exchange standard, that we must fix our point of departure.

The immediate result of the stabilization was to cause a large influx of capital[1]) which appears clearly in the frs. 38,000,000,000 increase of the Central Bank's foreign exchange holdings between January 1927 and June 1928. By far the largest part of this consists of foreign bills offered to the Banque de France by French banks and capitalists who were repatriating their balances from abroad, while another part represents bills drawn and offered by foreigners eager to obtain francs for exchange speculation. Whatever the exact nature of the forces underlying the inflow of funds, the main point to remember is that, inasmuch as it brought about a tremendous increase in Central Bank reserves it might be expected to have set in motion the familiar process of rising commercial bank reserves, falling interest rates and expanding bank credit. Analysis of the relevant figures shows, however, that in the

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base is expanded and the currency and credit stucture may be expected to show a corresponding expansion regardless of whether the base consists of gold or foreign exchange.

[1]) Obviously what was repatriated is something very different from what is usually called real or economic capital, whether one means by that all classes of goods used in production including consumption goods or productive goods (tools, machines) alone. It may not be quite so obvious that the repatriation of foreign balances does not mean a direct inflow of money capital or purchasing power either. To see this clearly consider what happened in France in the period Jan. 1927—June 1928. The banks turned over their foreign claims to the Central Bank in exchange for francs. Evidently this transaction does not in any way affect the volume of existing bank deposits or purchasing power. But it does affect the volume of *potential* bank deposits and it does so in two ways. First, it substitutes cash for bills of exchange on the asset side of the banks' balance sheet. In banking parlance this means that primary reserves are augmented by a shift from secondary reserves. And since the volume of deposits which can be safely maintained (or, which is the same thing, the volume of credit outstanding) is a function of the amount of primary reserves, it follows that this shift renders the banks able to increase their commitments. Secondly, the inflow of foreign exchange into the Central Bank adds to that institution's excess reserves, not by the full amount of the inflow, for it is paid for with an equivalent increase of Central Bank liabilities, but by an amount of usually about 60% of the inflow. The result is that the Central Bank too is in a position to extend its commitments by increased rediscounting or open market purchases, which means that through the potential increase of commercial bank reserves so made possible it enables the latter again to augment their deposit liabilities. It will need no explanation that a repatriation of home capital which takes the form of gold imports operates in exactly the same manner, at least as far as the domestic market is concerned. In summary we may say, then, that the repatriation of capital neither occasions an inflow of *real* capital nor an inflow of *purchasing power* in bank deposits or any other form, but merely effects a shift from secondary to primary reserves and at the same time an increase in Central Bank excess reserves which in turn makes possible a further increase of the commercial banks' primary reserves.

period under review lasting from the end of 1926 till the summer of 1928 this process has only been partially realized. The main explanation is that, just as in the United States in the years 1920—1922, a very large part of the foreign exchange inflow failed to produce any effect upon the volume of Central Bank liabilities. What happened is that the banks used the franc proceeds of their foreign exchange deliveries to the Central Bank to buy government securities which enabled the government to pay off its loans from the Banque de France. In this way the francs which this institution had issued to pay for its foreign bill purchases were again returned to it so that its aggregate liabilities remained unaffected.

Strictly speaking this might be termed full hundred percent sterilization, but only when that term is divested from the imputation of unfairness and unwillingness to play the game with which it is usually associated. For it is clear that this procedure of the Banque de France was a perfectly logical and necessary sequence of the decision to stabilize. If a return to convertibility was to be achieved without a sharp contraction of the volume of notes and deposits it was essential that their backing which until stabilization had consisted almost entirely of government securities were converted into "hard money". Hence the indirect sterilization brought about by offsetting foreign exchange purchases with government security liquidation.

Analysing the changes in the Banque de France's balance sheet from Dec. 1926 to June 1928, during which period it bought frs. 38,000,000,000 of foreign exchange, we find that the increase of liabilities so caused has been offset to the extent of frs. 14,000,000,000 by the roundabout sales of government securities described above. Another frs. 15,000,000,000 has been offset by relending foreign exchange to the commercial banks, an operation which by taking a corresponding amount of francs out of circulation either in the form of cash or a debit against the borrowing bank's deposit at the Central Bank, annihilated the inflationary effect of the preceding purchase of the bills. Finally, the banks and private parties paid off rediscounts to the extent of frs. 2,000,000,000. As a result of these three offsetting operations the net increase in Central Bank liabilities, notes, and deposits, came to no more than frs. 8,000,000,000 out of a total foreign exchange inflow of frs. 38,000,000,000.

The next point to consider is how this increase at the central credit reservoir has distributed itself over the country at large. As no official statistics of French commercial credit exist, only the trend of the banking situation can be indicated. For this purpose French financial writers usually refer to the monthly figures published by the four large Paris banks; the Crédit Lyonnais, the Comptoir d'Escompte, the Société Générale and the Crédit Industriel et Commercial. The following table shows the growth of their combined reserves, deposits, loans and bill holdings during the year following upon the de facto stabilization of December 1926 [1]).

	frs. 1,000,000,000				
	reserves	demand deposits	loans	bills	reserve percentage
Dec. 1926 . .	3.6	22.4	5.1	15.4	16
Dec. 1927 . .	6.1	26.4	5.7	16.1	23
% Increase . .	70	17	11	3	44

Partly, at least, the change in the figures here indicated is what one would have expected. Apparently the increase in Central Bank credit has found its way into the vaults of the commercial banks as appears in the sharp rise in the latter's reserves. The increase in the reserve ratio, however, amounting to no less than 44%, shows clearly that the inflow of funds into the banks has not formed the basis for a corresponding expansion of the volume of credit outstanding. The explanation of this failure of bank credit to follow the upward trend of reserves must no doubt be sought with the temporary recession of business activity which followed the stabilization of the currency.

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Reviewing the effects of the foreign exchange inflow we may draw up the verdict on the operation of the reflux mechanism in the following terms. In its first stage, that of the translation of gold imports, in casu foreign exchange inflow, into a more than

[1]) Revue d'Economie politique, May-June 1928.

proportional expansion of commercial bank reserves it has functioned very badly indeed. For once, however, the cause of its failure may rightly be ascribed to "abnormal" circumstances viz. the necessity for the Central Bank to effect what the Germans call a "Sanierung" in order to put itself in a position to reestablish currency convertibility. In its second stage, the translation of growing bank reserves into an expansion of credit, it also failed to function, this time without any exonerating "abnormality" in its environment. It may well be argued, however, that the period of time is not sufficiently long to allow of decisive judgment. The third phase, the translation of expanding credit into rising prices, need not be taken into account, since it follows from the absence of credit expansion that no success could be expected in this respect.

* * *

The next period to be considered runs from the de jure stabilization in June 1928 till July of the next year. Inasmuch as it is characterized by a reflux of French funds to foreign centres, the direct result of the widening differential between money rates in Paris and abroad, it affords one of the few illustrations of a properly functioning gold flow mechanism. That such reflux has actually taken place becomes clear only after close scrutiny of the changes in the Banque de France's gold and foreign exchange holdings. A breakup of the relevant figures shows that the Bank has sold about frs. 6,000,000,000 of foreign bills to banks and private parties anxious to transfer their funds to more attractive markets, and that a further frs. 5,000,000,000 has been converted directly into gold abroad[1]). It need not be stressed that the sale of foreign exchange to French banks is a clear case of the reflux of funds as envisaged by gold flow theory in exactly the same way as gold export. Of course it is true that in contrast with gold exports such transfer of foreign exchange from the Central Bank to the commercial banks does not exercise any noticeable influence upon the foreign markets on which the bills are drawn. But the fact remains that the desire of the banks to profit by the differential between domestic and foreign money rates brought about by the

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[1]) The difference between this last figure and the frs. 7,500,000,000 growth of the Bank's gold holdings is almost entirely accounted for by internal purchases of gold coin.

inflow of funds, and the subsequent realization of this desire implicit in their foreign exchange purchases, affords a clear example of the operation of the gold flow mechanism under a gold exchange standard regime.

While we see that in this period the short term corrective has operated with a fair degree of smoothness, a consideration of the course of commercial bank credit reveals that there are also definite indications of the incipient functioning of the long term corrective. Bank credit, which throughout the growth of reserves of 1927 had remained stable, expands rapidly throughout the following year. From frs. 21,800,000,000 at the close of 1927 loans and discounts of the four Paris banks rise to frs. 27,200,000,000 in May 1928 and frs. 30,400,000,000 in December 1928.

Unfortunately, this sudden speeding up of the redistributive machinery is not to last long. Already in the latter part of 1928, when it actually effected a reflux of funds, certain resistances develop, the first of a growing number which two years later bring the mechanism to a dead stop. We are referring to the failure of the influx of foreign exchange in the second half of 1928 to bring about an expansion of bank reserves. This influx was of a different nature from that of the preceding year and a half. In fact, the term influx is hardly fitting for we have already seen that actually an outflow of funds occurred at this time. What happened, however, is that in the last six months of 1928 the Banque de France liquidated the foreign exchange loans described at an earlier point. Obviously this meant an equivalent increase in its note and deposit liabilities which might be expected to to have led to an expansion of commercial bank reserves. That no such expansion occurred and that here again the gold flow mechanism failed to operate is due to the fact that frs. 7,000,000,00 of the total proceeds of the foreign exchange loans, or close to 85%, were absorbed by the public treasuries and immobilized in the form of government deposits at the Central Bank.

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After the middle of 1929 the obstacles to the proper functioning of the redistributive mechanism become more and more formidable. In sequence of time there is first the declining power of relative money rates to govern the flow of bank funds. Already

two or three months before the Stock Exchange collapse in New York French bankers begin to withdraw their funds from abroad despite the wide differential between interest rates at home and abroad. [1]). Since with the enactment of the monetary law of June 1928 the Bank's obligation to buy all the foreign bills offered to it had been cancelled, exchange rates fell rapidly to the gold import point and gold began to flow into the Banque de France. Thus we see the Bank's gold holdings rise from frs. 36,684,000,000 in June to frs. 41,359,000,000 in December, all of which increase is due to arbitrage operations of private parties. This time most of the increase in the Bank's liabilities consequent upon its gold purchases finds its way into the money market. Although the government still immobilizes a part of the enlarged credit facilities in its account with the Bank, the amount is relatively small, accounting for only frs. 1,100,000,000 of the total increase in notes and deposits of frs. 5,300,000,000. Even so there is no trace of any connection between the course of Central Bank liabilities and the volume of commercial bank reserves. At the end of 1929 the reserves of the four Paris banks stand at frs. 4,800,000,000 against frs. 6,000,000,000 a year earlier.

This failure of the mechanism in its first stage grows even more pronounced in 1930. We have seen that in 1929, when money rates were still considerably higher abroad than in France, a large amount of French funds had been called home. No wonder then that this movement grew in strength when the rapid decline of foreign money rates which by the spring of 1930 had brought them to parity with those in Paris, elimimated the only incentive to leave French capital abroad. As a result frs. 11,700,000,000 of gold was imported and tendered to the Banque de France in exchange for francs, leading to an increase of frs. 8,300,000,000 in the note circulation and a growth of frs. 3,000,000,000 in private deposits. Again there is hardly any effect upon commercial bank reserves. The four Paris banks show an increase in reserves of only frs. 700,000,000. And just as the inflow of gold failed to work itself out in a corresponding growth of bank reserves, so

[1]) "Une certaine défiance s'était propagée peu à peu dans les milieux bancaires.... celles-ci commençaient à entreprendre une révision de leurs risques bancaires, ici et au dehors, qui s'accordait mal avec un développement continu des placements extérieurs" Rev. d'Econ. pol. 1930, p. 513.

what little increase did take place in the latter failed to produce an expansion of credit, witness the stability of loans and discounts which at the end of 1930 stand at frs. 31,600,000,000 or only frs. 100,000,000 higher than a year ago.

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Here, certainly, we have a striking example of the failure of the gold flow mechanism in its first stage. For the two years 1929—1930 the net increase in the total of notes and deposits of the Banque de France resulting from the gold inflow, comes to appromately frs. 17,000,000,000. Yet in the same period the reserves of the four Paris banks show a net decrease of frs. 500,000,000. What can account for this complete absence of any correlation between Central Bank liabilities and commercial bank reserves?

To some extent it may be explained by the fact that a part of the increase in Central Bank credit has flown directly or indirectly into the accounts of the private depositors of the Banque de France. In so doing it evaded the commercial banks of the country. It should be kept in mind in this connection that unlike most banks of issue the Banque de France, through its numerous branches, transacts a large volume of commercial banking business, so that an increase in its deposit liabilities does not necessarily indicate an increase in commercial bank reserves. However, even allowing for those parts of the increase in Central Bank credit which were absorbed by private customers in their deposits at the Central Bank, there remains the rise of frs. 12,500,000,000 in the note circulation to be accounted for. What has kept these notes from flowing into the reserves of commercial banks there to form the basis for a considerable credit expansion?

The answer to this question might be sought with the peculiar nature of the French savings banks. Throughout the period under review these institutions have paid an appreciably higher rate on the funds entrusted to them than the commercial banks, as appears from the following figures [1].

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[1]) Les caisses d'épargne; Revue d'Economie politique.

	%		
	Commercial banks	Caisse Nationale	Caisses ordinaires
1927 . .	1.25—1.75	3.75	3.75
1928 . .	1.50—2.00	3.50	3.50
1929 . .		3.25	3.50
1930 . .	1.00—1.37	3.25	3.50
1931 . .	0.50— .87	3.50	3.37

The differences here shown are further accentuated by the fact that in France savings bank deposits are exempt from the 16% tax on the interest on commercial bank deposits. And since the savings deposits are payable on demand and the possibility of having several accounts "enables many to use the savings banks as a depository for their working cash reserve [1])", thereby making it possible to maintain balances considerably higher than the official maximum of frs. 12,000 for individuals and frs. 50,000 for corporations [2]), there exists a strong incentive, therefore, to keep surplus funds in the savings banks rather than in the commercial banks. That this advantage of the savings banks has played a not inconsiderable role in deviating the increase in circulating media from the natural credit repositories and in so doing has contributed a good deal towards cancelling the potential influence upon the volume of credit, is indicated by the rapid growth of savings bank deposits in the post-stabilization period.

Combined deposits of the Caisse Nationale and the Caisses Ordinaires	
	frs. 1,000,000,000
Dec. 31st. 1927	21.2
" " 1928	27.2
" " 1929	31.9
" " 1930	38.5
" " 1931	50.8

[1]) Thomas Balogh; Economic and monetary factors of the French gold position; The Banker March 1931.

[2]) In March 1931 the limits were raised to frs. 20,000 and frs. 100,000 respectively.

[3]) Les caisses d'épargne; Revue d'Economie politique.

In addition to the drain of currency to the savings banks, two other developments may be deemed to have prevented the additional currency from functioning as a wider credit basis. First, the revival consequent upon the restoration of currency stability of the national custom of currency hoarding. Secondly, it is highly likely that for a time the management of government finances also exercised a certain sterilizing influence. At the end of the fiscal years 1928 and 1929 budget surplusses amounted to no less than frs. 3,236,000,000 and frs. 8,000,000,000 respectively [1]). Of course this does not mean that a total of frs. 11,000,000,000 was permanently withdrawn from the country's currency and deposit circulation for in the calendar years 1929 and 1930 about frs. 9,000,000,000 was restituted to the public through the amortization of the public debt. But if regard is had to the sources whence the budget surplusses were derived on the one hand, and to the channels through which they were restored to the public on the other hand, it will become clear that these operations of the Treasury must have exercised a sterilizing effect. Undoubtedly the larger part of the surplus revenue was obtained directly from productive and commercial enterprise of all kinds, that is, from those members of the national economy who usually keep their funds in commercial banks and in so doing greatly magnify the total possible volume of media of exchange. When the funds so obtained are used to pay off a part of the long term public debt they are in fact merely transferred to the rentier class; they are as it were transplanted from the most fertile to the most barren soil. True, the rentiers will sooner or later reinvest the funds thus allowing them to flow back into the credit repositories of the country, but it is obvious that this process is a slow one and that the effect of these transfers must have been to immobilize part of the national currency for a considerable period of time.

* * *

Of the effect of the gold inflow of 1931 little need be said, as the particular influences which impeded the operation of the redistributive mechanism at this time will be dealt with more fully in the next chapter. The facts are briefly as follows. The gold hold-

[1]) Le Budget, la Trésorerie et la Dette Publique; Revue d'Economie politique.

ings of the Banque de France increased by frs. 15,000,000,000. Of this total frs. 3,200,000,000 was obtained through the conversion of a part of the Bank's foreign bills. The remainder represents gold imports by banks and private parties and is reflected in increases of frs. 7,100,000,000 and frs. 4,900,000,000 in the Central Bank's note and deposit liabilities. Although a considerable part of the proceeds of the sales of gold to the Banque de France has doubtless gone into private hoards [1]) there is nevertheless a more pronounced effect upon commercial bank reserves than in former years. From frs. 5,500,000,000 at the end of 1930, reserves of the four Paris banks rise to frs. 12,600,000,000 at the close of the next year, part of which increase, however, must be due to the liquidity scramble rather than to gold imports. Of any effect upon the volume of credit outstanding there is no question; loans and bills fall from frs. 31,600,000,000 to frs. 27,900,000,000 and the reserve percentage more than doubles.

* * *

There now remains to discuss one more aspect of the French gold accumulation; its effect upon prices. The question may be dealt with in rather short compass as there have been shown to exist very good a priori reasons for believing that the influence of the gold inflow upon prices cannot have been very significant. For has it not been demonstrated in an earlier section that this inflow has in an large degree failed to fulfil the one condition, an expansion of credit, without which the rise in prices is impossible? Obviously the anticipated effect of increased gold supplies cannot make itself felt if the channel through which it transmits itself is stopped up. And as we have seen this is exactly what has happened during a large part of the duration of the gold inflow. For reasons already explained the inflow of gold has not been made the basis for a widespread expansion of bank credit. Part of it did not reach commercial bank reserves at all, and merely served as backing for currency previously issued or went into hoards and savings bank deposits, while the part that did go to strengthen

[1]) „Le volume des billets en circulation.... s'est accru en un an d'un peu plus de frs. 7,000,000,000. Cette augmentation qui ne porte que sur les coupures de 1000 francs et de 500 francs est manifestement due à un développement de la thésaurisation" Journal des Débats Febr. 1st 1932.

bank reserves did not lead to anything like the expansion of credit which it made possible. Under these conditions there is little reason to expect that prices would be significantly affected.

The available price indices fully confirm this expectation. As indicated by the index numbers of the Statistique Génerale the level of French wholesale prices does not show any appreciable trend of change between March 1927 and March 1929. During this period the index fluctuates irregularly, dropping from 655 in March 1925 to 600 in October of the same year thereafter to rise to 653 in March 1929. At first sight the rise in 1928, 8% in all, might be thought to stand in direct relation to the low level of money rates and the growth of bank credit in that year. Close inspection of the component parts of the index, however, will show this conclusion to be unwarranted. The variations of the general index are almost entirely due to changes in agricultural prices while industrial products have remained practically stable

	All Commodities	Foodstuffs	Industr. Products
March 1927	655	629	678
Oct. 1928	600	519	670
Febr. 1929	652	611	687

throughout [1]). As the fluctuation of agricultural prices is beyond doubt due to non-monetary factors such as meteorological conditions, and the prices of industrial products remain virtually unchanged, with the exception of the first three months of 1929, there seems to be sufficient evidence for the belief that what little change in French prices did take place was the result of a diversity of special causes and not in any way attributable to the inflow of gold.

The same conclusion is reached when regard is had to the behaviour of retail prices. From 586 in February 1927 the index falls to 522 a year later, whence it rises again to 576 in February 1929. A knowledge of the articles of which the index is composed (of the 13 products included 11 are foodstuffs) and a comparison of the

[1]) Cf. A. Aftalion, L'or et sa distribution mondiale, Chapter 2.

trend of the agricultural price index during this period indicate clearly that the changes in the retail price index, just like those of the wholesale index, are almost exclusively due to variations of weather-controlled agricultural prices. Of the influence of monetary factors there is no sign [1]).

If statistical evidence shows that there is no appreciable correlation between the inflow of gold and foreign exchange and the course of prices in the years 1927—1928, during the larger part of which the volume of bank credit was rising rapidly, then there is even less reason to expect any effect on prices in the next three years when the incoming gold failed altogether to bring about an expansion of bank credit. Curiously enough, so strong is the fascination of the quantity theory truism that there is still a large section of opinion which holds that there is some magical connection between the supply of gold and the level of prices, regardless of whether, through an expansion of credit, the increased gold stock is brought to bear upon prices or not. How much futile labour has not been expended in constructing elaborate data to show that an increase in gold supplies has caused prices to rise where a preliminary study of the effect of the gold flow upon the credit structure would have indicated that the very prerequisite for such a price rise was totally absent [2]). In the present case however, even the most astute statistician would find it an arduous

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[1]) Cf. A. Aftalion, L'or et sa distribution mondiale, 1932.

[2]) Thus repeated attempts have been made to "prove" the effect of the gold inflow upon French prices by comparing their rate of decline with that of foreign prices. To any one having the slightest acquaintance with the nature of the material he is dealing with, — think only of the lack of comparability of the various national indices, the inclusion of a large number of commodities common to all, the differences in weighting and the hundred and one other imperfections which so often make statistics the irrefutable argument of the ignorant —, the scientific quackery of such methods will be obvious. Prof. Aftalion shows this strikingly in his rejection of the popular demonstration of the relative inflation of French prices. Those whose thesis he attacks conclude from a comparison of the two indices of national prices and import prices that, since the latter have declined at a much sharper rate than the former, French prices, inflated by the gold inflow, are going out of line with world prices. To this Aftalion very convincingly replies that although is it true that the index of import prices has fallen far below the national index, this ascertained fact does not prove in any way that French prices are inflated and out of line with world prices. For the import index is made up almost entirely out of highly sensitive prices such as copper, zinc, lead, cotton and other raw materials and as such does not give a true picture of foreign price levels in general but only of that class of prices which reacts most violently to any disturbance and which has been most subject to overproduction. The fact, therefore, that this index has declined more rapidly than the figure of French products tells us nothing of the relation of French prices to *comparable* foreign prices. Moreover, Aftalion goes on to say, if one compared

task to demonstrate the influence of the gold inflow upon French prices, witness the following index numbers. [1])

1914 = 100

	Wholesale Prices			Retail Prices in Paris
	All Commodities	Industrial Products	Foodstuffs	
March 1929 . .	653	691	610	607
Dec. 1929 . .	588	625	546	614
Dec. 1930 . .	498	475	525	649
Dec. 1931 . .	413	370	463	557

* * *

Conclusions

At last the thankless task of empirical analysis has been completed. Step for step we have investigated the source, the causes, and the effects of the gold and foreign exchange inflow with the result that we are now in possession of a considerable amount of circumstantial evidence regarding the working of the gold flow mechanism in France; circumstantial, because unlike that pertaining to the American case it is based entirely on the discovery of superficial resistances and not in any great degree on the ascertainment of fundamental changes of economic society. In France

the decline of this index with the national indices of other countries, especially in Europe, one would find a similar discrepancy in rates of decline so that the paradoxical conclusion would be reached that "dans la plupart des pays d'Europe et en même temps les prix des produits nationaux seraient plus élevés que les prix à l'étranger" loc. cit.

[1]) By some writers a great deal has been made of the divergent trend of the retail index as indicating the influence of excessive monetary supplies. Apart from the fact that it is hard to see why retail prices alone should be affected, there is another good reason for rejecting this view. As Prof. Aftalion explains, the rise in the retail index like the sharp fall of the import index, is due to the nature of its construction. Of the 13 commodities of which it is composed 6 are animal products and are given a weight of 66% of the total weights applied while the item bread is weighted by 22% leaving a net weight of only 12% for the six other articles included. Now if it is realized that between March 1929 and February 1931 the index of animal products rose from 579 to 612 and that of bread from 99.2 to 116.8, the rise of the retail price index becomes fully comprehensible without resorting to monetary explanations. Evidently it has been largely due to price rises in a few of the heavily weighted commodities and as such loses any and all meaning as a measure of the changes in the value of money.

the mechanism has failed not because in one of its three stages it encountered some unsurpassable obstacle like the evolution of credit control but because in all stages it met with friction and resistances of various sorts which, though not essentially unsurmountable, were yet powerful enough to slow up its operation so as to make it valueless for all practical purposes.

Reviewing briefly the findings of the foregoing pages, we saw that in the first two years following the restoration of currency stability the mechanism was on the whole functioning fairly efficiently. Commercial bank reserves increased, interest rates fell, a certain reflux of funds occurred, and finally after a lag of time credit began to expand. True, the inflow of foreign exchange failed to produce a corresponding growth of Central Bank liabilities. But we established that in view of the peculiar situation in which the Bank found itself at the time, the absence of correlation between reserves and liabilities could not be taken as evidence against the gold flow mechanism.

Meanwhile, even during this period of comparative success some of the resistances have already become operative. Thus the absorption by the government of the proceeds of the foreign exchange loan liquidation in the last half of 1928 prohibited a smooth flow from Central Bank liabilities to commercial bank reserves. A few months later another obstacle to the operation of the gold flow mechanism appears as relative money rates suddenly lose their power of directing capital movements and funds are recalled from abroad despite the materially higher returns there obtainable. At the same time the accumulation of gold so occasioned fails completely to effect any increase in commercial bank reserves in spite of the fact that note and deposit liabilities of the Banque de France rise pari passu with the gold inflow. Currency hoarding, the savings banks, and the financial policies of the government were found to have been the three most important obstacles in the way of a smooth flow from Central Bank reserves to the commercial banks. In 1931 their interference with the gold flow mechanism's operation in the first stage appears to be less pronounced as bank reserves follow the trend of Central Bank liabilities. But while in this instance the mechanism may be functioning in the first stage it still falls far short of achieving its aim, as the growth of reserves is accompanied by a decrease instead of increase of bank credit.

We see, then, that at every point in the sequence of cause and effect, from gold inflow to rising bank reserves, falling interest rates, expanding credit and rising prices, each successive cause at one time or another has failed to produce its full effect. And with the multiplication of such barriers between the initial cause and its anticipated ultimate effect, the chances that the latter would finally materialize steadily diminished. The more obstacles gold encountered in its penetration into the French economy the weaker the forces which kept the redistributive machinery operating became and the slower its wheels began to turn, until finally by sheer lack of driving force it had to come to the ultimate and inevitable stop.

Now the critical reader will no doubt exclaim that the foregoing analysis of the gold flow mechanism's failure in France is very incomplete. He will point out that while the resistances of which we have spoken may have contributed to jamming the mechanism, we have stressed them far too much and that we have overlooked other causes such as the negative sterilization of the Banque de France's gold supplies appearing in the steady rise of its reserve ratio to more than double the legal minimum. The objection is perfectly valid, for there is no question but that the refusal of the Bank to bring the full pressure of its huge gold stocks to bear upon the country's credit structure exercised an adverse influence upon the operation of the redistributive mechanism [1]). That we have nevertheless ignored this factor finds its explanation in the purpose of this study, which is not so much to give a complete explanation of the mechanism's failure for every country dealt with, as to gather from the various national experiences the evidence necessary to show that the mechanism is incapable of securing the frictionless distribution of money indispensable to the maintenance of economic equilibrium. Hence it is obviously unnecessary to stress an impediment such as sterilization which has already been fully discussed in reference to the American gold accumulation. For having found there that sterilization is not an accidental or local obstacle to the functioning of the gold flow mechanism but the outcome of a process of

[1]) To say that it was not the *refusal* of the Bank to fertilize the gold to its full legal extent but its *inability* to do so (the Banque de France is not empowered to engage in open market operations) which caused sterilization does not in any way alter the fact that this sterilization did hamper the gold flow mechanism.

worldwilde historical development, no good purpose can be served by losing ourselves in repetitions and pointing out further examples of what we have already established to be a universal feature of modern times.

The present chapter, then, far from pretending to find in the record of the French gold inflow all the material necessary to construct a successful case against a return to the old gold standard, simply adds a few pages to the dossier. Of course, there will be some to claim that the evidence presented in the foregoing is irrelevant. They will object that most if not all of the resistances which we found to have jammed the gold flow mechanism in France were of an "abnormal" character; that currency hoarding, the failure of interest rates to govern the flow of bank funds, the lack of correlation between bank reserves and bank credit etc. etc. were all in some way due to the position of the business cycle and need not be counted with in the future. Others will take the opposite position and say that these resistances or similar ones are normal enough but that inasmuch as the gold flow mechanism has usually been able to overcome them in earlier days, it may be relied upon to do so again in the future. We can make short shrift of the first objection. As we will have occasion to point out at greater length in the next chapter, the view that disturbances of economic equilibrium resulting from the business cycle are abnormal and may safely be overlooked in formulating plans for future reconstruction, is so obviously out of touch with reality that it can be ignored without further comment at this point. Nor does the second objection rest on much firmer ground. To say that the gold flow mechanism has in the past been able to overcome friction similar to that which recently impeded its operation in France is probably true. But does it follow from this that it can be counted upon to so do again in the future? Of course not. Surely, it *may* do so but to any one desirous of avoiding a repetition of the last breakdown, that is not enough. Assurance must be given that it *will* do so and as the French example has so clearly shown, such assurance the old gold standard cannot give.

CHAPTER IV

SWITZERLAND AND HOLLAND

> Especially, however, should it be noted that all too often correctives of the most sensitive kinds.... if pressed too far are almost sure to 'kick back'.... While smooth enough in their operation so long as skies are clear at the approach of danger they stop with a jerk and fly quickly into 'reverse'.
>
> JAMES HARVEY ROGERS

In the preceding chapters we have purposely concentrated our attention on the operation of the gold flow mechanism in a more or less 'normal' period. In keeping with this aim the turbulent events of the year 1931 have been given only scant consideration. Yet it is in that year that the mechanism's failure has been most flagrantly evident. Gold moved from country to country with unprecedented rapidity and in heretofore undreamt of quantities. And so completely ineffective was the redistributive machinery that within a few short months further outflows had to be forcibly prohibited. Over half the world currency convertibility was suspended and with this step the short-lived reign of the international measure of value came to an end.

In making no more than a passing allusion to this last convulsion of the old gold standard we have followed the practice of most writers on recent monetary history. Like them we have been more interested to see what has kept the reflux mechanism from functioning during the period of comparative economic stability preceding the world crisis, than in the self-evident explanations of its final collapse of 1931. For these explanations lie on the immediate surface of reality for all to see with the naked eye of common sense. No statistical or theoretical analysis is required to understand that it was the confidence crisis which completely vitiated the operation of the redistributive tendencies. Gold

could continue to flow from one set of countries to another because even where such movement produced all the reciprocal effects on bank reserves, interest rates etc. which normally are counted upon to bring about a rapid reflux, lack of confidence rendered interest rate differentials totally powerless to reverse the flow of capital. The last and strongest link in the chain of cause and effect which in theory leads from gold inflow to gold outflow was dissolved by that all-powerful solvent of economic relationships, fear.

If the question why the gold flow mechanism has been such a thorough failure in 1931 can be answered with the single word "fear", there would be good reason to think that there is no more to be said. But the very simplicity of this explanation leads one to suspect that it is not altogether satisfactory. The catch phrase "lack of confidence" has covered too great a multitude of sins, loose thinking and superficial analysis, to inspire any great confidence in its exhaustiveness. That it only touches the surface of the problem with which we are here dealing, becomes clear as soon as the present is confronted with the past. Surely lack of confidence or fear is not something new in capitalist society. Surely fear has been present in the crises of earlier days. Why then should it have wrecked the gold flow mechanism in our own time if it has been unable to do so in the past? No doubt, it may be that in the last crisis the lack of confidence was more pronounced than ever before, but the answer is too easy to satisfy. At least an attempt must be made to find a more acceptable explanation.

* * *

Meanwhile, it might be objected that, whatever the fundamental explanation of the breakdown of 1931, it is not relevant to our purpose; that the knowledge of the factors which caused the gold flow mechanism to fail in that year cannot be used as evidence against its efficiency or against the realism of gold flow theory because 1931 was characterised by "abnormal" conditions. To a certain extent the objection is perfectly valid. For it is quite sure that by the spring of 1931 the foundation upon which the theory rests, the assumption that business conduct is governed by rational gainseeking calculation, had been washed away by

the rising tide of distrust. If rational conduct did not entirely disappear, at least the standards of what is and what is not rational had completely changed. To use the factual record of the crisis year in refutation of the validity of the gold flow theory, therefore, is no better than tilting at windmills. Gold flow theory has never pretended that under conditions such as prevailed in 1931 the redistributive mechanism would operate. Has not Ricardo himself said more than a hundred years ago that in "panics" the normal correctives could not be expected to function [1]?

But while the theory does not claim that the automatic distribution of world money will always work itself out and is, therefore, not open to reproach on the grounds that it is flatly contradicted by the experiences of 1931, it has claimed and does claim more or less implicitly that such conditions as vitiated the operation of the mechanism in 1931 are "abnormal" in the sense that they will only recur at long intervals, if at all. It is on the basis of this claim or rather this assumption that our hypothetical hecklers ask us to reject the evidence of 1931 as an argument against the reliability of the gold flow mechanism. Certainly, they say, it has failed and lamentably so, but since its failure was due to abnormal circumstances we need not worry that it will fail again in the future; so let us wait till normal conditions return, then restore the old gold standard, and trust confidently that all will be well.

Now apart from the fact that even under so-called normal conditions there is in our opinion no reason at all to expect that all will be well, it is furthermore a gross misapprehension of fact to say that the type of difficulty with the gold flow mechanism had to struggle in 1931 is abnormal in the sense of being non-recurrent. Perhaps the special combination of circumstances then prevailing had rendered these difficulties unusually acute. But this should not blind us to the recognition that the phenomenon of lack of confidence itself is not in any way abnormal, and must be expected with varying degrees of intensity to continue periodically to interfere with the functioning of the reflux mechanism. The conception of economic life as a process of smooth development only occasionally interrupted by temporary dis-

[1]) Proposals for an economical and secure currency, 1816.

turbances, long since made way for the more realistic concept of the cycle in which the "normal" periods have been relegated from their position as a stretch on a relatively smooth line to that of a point on a spiral [1]).

It will be clear then, that if we reject the "normal period" concept, if these phases of low, medium and high temperature of the world's economic body pass into one another like the ebb tide passes into the flood tide without any sharply demarcated periods of stability separating them, then indeed a gold flow theory which is based on the abstraction of one these phases as the "normal" one must not only fail to be a good theory, to provide a satisfactory pattern in which to understand the diversity of complex events, but — more important — it must also become largely useless as a guide to practical policy. Or to put the same thing in another way, a redistributive mechanism which is adapted to fair weather only and is not prepared to function under less ideal circumstances must necessarily be a very unsatisfactory instrument. A study like ours, therefore, which seeks to find in its past record the demonstration of its impracticability for the future, is fully justified in including in its indictment an analysis of the mechanism's failure in those "abnormal" periods of the business cycle which of late have shown such a regrettable tendency to become "normal" [2]).

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To secure a clear understanding of the influences underlying the sudden flood of gold towards Switzerland which between

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[1]) The deep implications of this change in attitude to the value of economic theory proper, which in general still proceeds from the older conception of economic development, have not always been fully realized. Yet it is easy to see that the cyclical conception strikes at the root of the established theories. For does it not imply that the "springs of conduct", the psychological drives behind economic behaviour, which established theory assumes to be immutable are continuously changing? Thus in the field of capital investment the development of the business cycle is accompanied by a shift of motives from a desire for a reasonable income to a desire for capital appreciation to a desire for avoiding capital loss at the sacrifice of all income and so on ad infinitum. Perhaps at some future time a new economic theory will be set op which will reformulate the well established truths of existing doctrine in accordance with the modern concept of cyclical development and the changing motives to action which it implies. Such is not our present task however.

[2]) The reason why the gold accumulations of Switzerland and Holland are taken as the example of such a period is that they far more than the gold inflows into France and America show the operation of those disturbances typical of this particular phase of the business cycle.

September 1929 and December 1931 raised the gold and foreign exchange holdings of the Banque Nationale Suisse by no less than 228%, let us consider briefly Switzerland's monetary history since the stabilization of the franc in the end of 1924. Relatively unaffected by the ravages of the Great War Switzerland was one of the first European countries to restore its currency to a solid "hard money" basis. Already at several times before the final stabilization of June 17th 1925 the Swiss franc had reached parity with the dollar, then the gold currency par excellence. From November 1924 onward it remained steadily at or about par, so that when in June of the next year the Banque Nationale declared itself ready henceforth to maintain the exchange between the dollar gold points by selling foreign currencies whenever the rate threatened to rise to the gold export point, the chances that it would be able to carry out its promise appeared very good, especially since the balance of payments, the real long term determinant of currency stability, appears to have been in favour of Switzerland by this time[1]).

Once the de facto currency stability was guaranteed by the Central Bank's declaration of June 17th 1925, implying Switzerland's adoption of the gold exchange standard, a rush of funds, partly Swiss capital repatriated from abroad, partly foreign refugee capital streamed into the country [2]). In this way the exchange position of the Swiss franc, already strong in itself, grew even stronger. Nothing succeeds like success; because Switzerland was successful in putting its financial house in order at an early date foreign confidence in its currency grew rapidly and as a result the inflow of funds from abroad further consolidated the position of the franc on the world's exchange markets [3]). Alt-

[1]) "Le mouvement des étrangers, le transit, les opérations de banque et d'autres postes invisibles de la balance des paiements paraissaient compenser l'excédent passif de la balance commerciale". Annual Report of the Banque Nationale for 1924. The author has not been able to obtain access to the reports of the Union Suisse du Commerce et de l'Industrie which are said to contain annual estimates of the Swiss balance of payments. All writers on the subject seem to be agreed, however, that Switzerland's post war balance regularly showed a surplus on current account.

[2]) "Aux capitaux suisses refluant de l'étranger.... est venu s'ajouter l'argent que l'étranger expédiait dans notre pays". Report of the Banque Nationale for 1925; "Les troubles économiques et politiques dans de nombreux pays stimulèrent l'afflux de capitaux étrangers qui n'avait jamais complètement cessé depuis la guerre". Memorial publication of the Banque Nationale Suisse 1932, p. 210.

[3]) Cf. Fabrice Allizé, L'organisation des banques suisses. 1923, p. 77.

though with the gradual restoration of currency stability in other countries the flow of capital towards Switzerland abates somewhat, a certain amount continued to come in throughout the years 1926—1927 [1]).

Yet despite the pressure which this afflux of funds from abroad added to the regular surplus on current account, must have exercised on the Swiss balance of payments, there is no sign of any appreciable increase in the Central Bank's gold and foreign exchange holdings. The inference is that the import of capital into Switzerland and the net balance on current account must have been fully offset by an equivalent amount of Swiss capital exports.

It is not hard to see that this is exactly what has happened. Already before the War Switzerland was a regular contributor to foreign capital markets [2]). As a result of the productivity of its industries, the modesty of its standard of living and the relatively slow increase of the population, the accumulation of capital in Switzerland has rapidly exceeded the opportunity for profitable domestic investment[3]). Consequently the surplusses on the balance of payments were regularly left abroad to be invested at higher rates than could be obtained at home. When, therefore, foreign funds began to flow into the country during and after the War to escape the ruinous effects of war finance, Swiss bankers were quick to re-export them to more remunerative centres along with the regular current income abroad. In this way Switzerland's function on the international capital markets came to be that of the middleman [4]). It received foreign capital on deposit paying a very low rate of interest on it, safeguarded its principal through the intrinsic stability of the currency in which it was expressed,

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[1]) "Le fort afflux pendant la première moitié de l'année de capitaux étrangers, surtout le reflux de capitaux suisses placés à l'étranger.... ont naturellement favorisé le mouvement de baisse des taux". Report of the Banque Nationale for 1926; "Il — the Swiss money market — à été fortement alimenté par l'afflux de fonds étrangers" ibidem for 1927.

[2]) "Landmann se fondant sur Kurz évaluait avant la guerre à 100 millions la somme des capitaux exportés annuellement" Memorial publication of the Banque Nationale Suisse, p. 357.

[3]) Cf. Wilhelm Meyer, Die Emission ausländischer Anleihen in der Schweiz, 1931.

[4]) "Ein Land erscheint, weltwirtschaftlich gesehen, zumeist überwiegend entweder als Glaübiger- oder als Schuldnerland; bei der Schweiz überwiegt die erstere Eigenschaft, aber gleichzeitig erscheint sie in einem Umfange wie kaum ein anderes Land der Welt als Vermittler, der fremdes Kapital aufnimmt und selbst wieder weiterverlieht"; Dr. Kurt Höweler, Der Gold- und Kapitalmarkt der Schweiz; 1927 p. 1.

and finally relent it abroad at a high rate of return. The Swiss banker relieved the foreign capitalist of the exchange risk attaching to the investment of his capital in return for a share (often as high as 50%) of the income which it produced. That this export of Swiss and foreign capital must have come very near to balancing the aggregate of capital imports plus the current surplus on the balance of payments appears clearly in the stability of the Central Bank's gold and foreign exchange holdings: at the end of 1927 they stand at frs. 717,000,000 compared with frs. 698,000,000 at the close of 1927, a net increase of only 2%.

In 1928 the well-nigh perfect equilibrium of the movements of capital in and out of Switzerland is no longer maintained, for during this period Central Bank reserves show a rise of frs. 77,000,000 most of which is in the form of foreign exchange. Apparently the banks have realised a part of the year's surplus on the balance of payments and of the capital imports by selling the foreign bills to which they gave rise to the Central Bank. There are several possible explanations of this change of practice. First, Switzerland at this time experienced the same upswing of industrial, financial, and commercial activity that made itself felt all over the world. Consequently there was an increased demand for money capital which may well have induced the banks to turn over some of their foreign credits to the Central Bank in exchange for domestic funds for use on the home market [1]). Another cause of the decrease of Swiss capital exports in 1928 may probably be seen in the world wide disinclination towards bond investment of those days. On the one hand the attitude of the investing public

[1]) "Les devises rentrèrent tout d'abord du fait que les banques désireuses d'améliorer la liquidité de leur bilan procédèrent au rapatriement de fonds placés a l'étranger". Report of the National Bank for 1928.True, there is litte indication of any appreciable tightening of Swiss interest rates to confirm this opinion. The average rate on private discounts for the year 1928 comes to 3.31%, only three points above the preceding year and, with the exception of France, still considerably below the rates in foreign centres. But it is dangerous to draw ready-made conclusions from the comparison of intra-national interest rates. For one thing the private discount rate does not necessarily give a representative impression of the entire rate structure of the Swiss market. Call money, for instance, may and often does rule at a much higher level which might be fully able to explain the inward movement of funds in terms of relative interest rates. Moreover, in some cases no such explanation is needed to understand the international movement of capital. Thus it is quite possible that for reasons partly patriotic or sentimental, partly of self interest (in Switzerland the commercial banks often carry large participations in the industries whose short term needs they finance) the banks will be prepared to meet an increased demand for internal credit without raising their rates.

was unfavourable towards bond financing so that few first rate offerings were made [1]), and on the other hand Swiss bankers, always conservative financiers and well aware of their obligations and liabilities as international credit jobbers, were disinclined to invest the funds at their disposal in Stock Exchange securities. The result was that a part of the capital inflow for which no suitable employ could be found abroad was turned over to the Central Bank in exchange for the national currency.

This minor interruption of the equilibrium between capital imports and exports is of only short duration, however, as in the nine months preceding the crash of October 1929 the movement of funds to and from Switzerland is again completely in balance. Although in the earlier part of the year there is an outflow appearing in a decline of the Central Bank gold and foreign exchange reserves of approximately frs. 150,000,000, capital flows back in the spring and continues to do so through the summer so that by the middle of October the Bank's reserves have been fully replenished. The aggregate gold and foreign exchange supply then stands at frs. 778,000,000, approximately the same figure as at the end of 1928 and only 13% above the level of 1926.

* * *

In review of the foregoing the monetary experiences of Switzerland in the years 1925—1929 may be summed up as follows. Unscathed by the ravages of the Great War, Switzerland at an early date appears as an island of stability in a sea of financial disorder founded upon the rock of a favourable balance of payments and basking in the warm light of foreign confidence. A stream of capital flows in to seek refuge in this "oasis de la paix" [2]), interest rates already low due to the abundance of domestic capital formation sink lower still, and as a result the foreign funds as well as the current income on the balance of payments are carefully re-invested abroad to earn the higher returns there obtainable. For about four years, from the middle of 1925 to the autumn of 1929, this process continues without notable interruptions. The stream of capital flows through Switzerland without

[1]) The foreign loans placed in Switzerland in 1928 amounted to only frs. 94,000,000 against frs. 253,000,000 and frs. 288,000,000 in the two preceding years.

[2]) George Paillard, La réforme monétaire en Suisse, Revue d'Economie politique, Sept. 1931.

exercising any appreciable influence on its economic and financial structure (except inasmuch as the not inconsiderable profits derived from this transit business add to the country's national income and especially to that part of it which is reflected in the balance of payments). Only in the last part of 1928 when the increased financial and commercial activity of the country requires an addition to the media of exchange and when the opportunities for satisfactory foreign investment are somewhat diminished, is there a short period in which the equilibrium between income and outgo of capital is temporarily disturbed and a small increase in the Central Bank's reserves takes place. But of an "excessive" or "undue" gold and foreign exchange movement which might be expected to set the redistributive machinery in motion, there can be no question.

Thus Switzerland approaches the difficult years which were to follow the Stock Exchange collapse of the autumn of 1929. Geographically well situated, widely known for the excellent reputation of financial stability and conservative management acquired in the pre-depression years, fully equipped and trained for extensive international credit operations and, last not least, in the happy enjoyment of a banking system free from the fiscal persecution which has done so much to drive capital out of countries less advantageously situated in this respect [1]), it was destined to fulfil the function of a huge safety deposit box for the mass of "capitaux apeurés" [2]), which shortly is to begin its wanderings in search of safety.

* * *

The autumn of 1929 sees the first of these rushes of capital towards Switzerland. From the beginning of October when the American Stock Exchange bubble was about to burst until the end of the year, the gold and foreign exchange holdings of the Banque Nationale rise by frs. 200,000,000 or about 26%. In all probability the larger part of this afflux of funds consisted of Swiss capital previously employed on the New York Stock Ex-

[1]) "L'activité des établissements suisses comme banques de dépôt est favorisée par la rigueur absolue de ce que l'on appelle le 'secret des banques'; les déposants ont à cet égard plus de garantie en Suisse qu'en France contre l'inquisition fiscale et la législation a beaucoup contribué à faire de ce pays un réservoir européen de capitaux". F. Allizé L'Organisation des banques Suisses, 1923.

[2]) Paillard, loc. cit.

change rather than of foreign capital. The really large movements of the latter do not begin until the outbreak of the financial crisis in the summer of 1931. Yet, although the world's credit system seems still untouched by the collapse of security values, the effect of lack of confidence which is later to eat away the foundations on which it is built is already making itself felt. For it is only such lack of confidence which can explain the very heavy repatriation of Swiss funds during a time when foreign money rates remained considerable above the domestic level [1]). As the first shock of the collapse of October 1929 begins to wear off, however, financial confidence returns and for almost a year and a half thereafter Switzerland continues to play its role as international credit jobber in much the same way as it has done ever since the War. Capital of both foreign and Swiss origin flows into the country and is quickly re-exported to foreign markets — a total of frs. 433,000,000 was invested in foreign loans during this period — so that the Central Bank's reserve on May 1931 stands at practically the same figure as at the end of 1929 [2]).

Then, finally, after this prolonged lull the storm breaks anew when in May the failure of the Kredit Anstalt sends a cold blast of fear over the financial world. A general sauve qui peut ensues. Everywhere anxious creditors try to collect their foreign credits. Under this strain which not even the soundest financial system could have withstood let alone the shaky inflated structure of 1931, country after country is forced to stop the outflow of gold and foreign exchange by forcible means. Before such measures can be enacted, however, huge amounts of capital have found their way out. What was more natural than that Switzerland with its central

[1]) The following table shows the international interest rate structure at this time.

Commercial Paper Rates.
Monthly Averages.

	Switzerland	New York	London *)	Berlin
Oct. 1929	3.38	6.25	6.13	7.28
Nov. 1929	3.32	5.75	5.35	6.89
Dec. 1929	3.15	5.00	4.76	6.98

*) Bankers' Acceptances.

[2]) The total of gold and foreign exchange holdings stood at frs. 951,000,000 against frs. 956,000,000 at the end of 1929.

location, its strong gold position, its excellent financial reputation and its benevolent fisc should appear one of the few safe places of refuge? And so a mighty stream of foreign funds rushes in undeterred by the absurdly low rates of interest prevailing with the result that by the end of 1931 the gold stock of the Banque Nationale had increased from frs. 642,000,000 to frs. 2,346,000,000.

Here if ever we have a clear case of a country accumulating an "undue proportion of the world's stock of precious metals". Under this terrific impact surely we may expect the redistributive machinery to come into motion. Surely this time the pressure is strong enough to overcome the natural inertia of the reflux mechanism and to force the gold back through the channels by which it has come in! Yet fully a year later, at the end of 1932, the gold and foreign exchange holdings of the Banque Nationale instead of showing a decline from the unnatural height of the preceding year, have risen still higher. Of the operation of the redistributive mechanism there is no sign. True, the first stages of the process of automatic reflux have been realised. Central Bank credit and commercial bank reserves have increased pari passu with the gold inflow and interest rates have declined to unprecedented depths. But that is all. Of a reflux of funds there is no trace. Bank credit fails completely to respond to the growth of reserves [1]) while prices decline rapidly [2]).

* * *

[1]) The following table shows the changes in Central and commercial bank credit from the end of 1929 to the end of 1932. The figures of commercial bank credit are taken from the bulletins of the Schweizerischer Bankverein and represent totals for a group of eight banks which together account for about 50% of the total commercial banking capital in Swtizerland.

Banque Nationale.				Eight Commercial Banks		
	frs. 1,000,000			frs. 1,000,000		
December	gold & foreign exchange	notes	deposits	reserves	deposits	loans
1929	956	999	206	265	3,402	3,677
1930	1,065	1,062	248	364	3,752	3,739
1931	2,453	1,609	967	994	3,332	3,207
1932	2,564	1,612	1,140	969	2,944	2,700

[2]) The index of wholesale prices falls from 147 in 1929 to 96 in 1932: Statistical Yearbook of the League of Nations 1921—1933 table 124.

Before coming to the question what are the underlying explanations of this utter failure of the reflux mechanism, it will be well to consider very briefly the Dutch experiences with gold movements in order to strengthen the factual material from which to draw our conclusions. Mutatis mutandis the gold movement towards Holland is of much the same nature as that towards Switzerland. The parallelism of the two cases follows logically from the great similarity of the position which Holland and Switzerland occupy on the world's financial markets. Before the War both countries had established themselves as capital exporters. Both remained neutral during the conflict of 1914—1918 and consequently both were able to restore order in their monetary systems at an early date. In Holland currency stability is re-established on the 29th of April 1925 when the prohibition upon gold exports is removed and the Nederlandsche Bank declares itself ready to resume redemption of its notes at the old parity [1]).

Like Switzerland centrally located and reputed for its financial conservatism, the Netherlands after the stabilization attracted a considerable amount of foreign capital [2]) which was subsequently re-exported to other countries [3]). Up until the middle of 1931 this transit of capital through Holland leaves the Central Bank's gold and foreign exchange position practically unaffected. It is only in the latter part of that year that gold suddenly begins to stream in, witness the following figures [4]).

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[1]) Although the Bank is not legally bound to redeem its obligations in gold, the fact that it has formally undertaken to sell gold whenever the exchanges rise above parity renders the Netherlands for all practical purposes a gold standard country. Or perhaps it is more accurate to say that the monetary system is one of the alternative gold — gold exchange type. For while as in Switzerland, foreign exchange does not figure in the legal reserves, the Bank of Issue until the fall of the pound made it a practice of keeping a considerable amount of its excess reserves in foreign bills and used these extensively to steady the foreign exchange market whenever necessary. As the Governor of the Bank of Issue has said in his report for the year 1925—1926: "the Netherlands Bank puts both a purely gold standard and the gold exchange standard into practice in turn". Cf. also Foreign Banking Systems, H. ParkerWillis and B. H. Beckhart, 1929, Chapter IX.

[2]) "Capital in countries still suffering from dislocation of their currencies.... found its way to this country". Report of the Governor of the Nederlandsche Bank for 1925—26.

[3]) "Large sums originating from abroad have apparently again been invested in foreign countries via this market" ibidem. See alsoW. J. Schmitz: Der Amsterdamer Geldmarkt, 1931, p. 38: "Aus dieser Situation ergibt sich also dass der Amsterdamer Geldmarkt eine Art Vermittlungs-stelle war. Ausländisches Geld wurde angesammelt und wieder für ausländische Anleihen verwendet".

[4]) Reports of the Nederlandsche Bank.

Nederlandsche Bank — f. 1,000,000			
	Gold	Foreign Exchange	Total
Dec. 1925 . . .	442	246	688
June 1931 . . .	450	224	674
Dec. 1931 . . .	887	86	973
Dec. 1932 . . .	1,032	71	1,103

We see here on a somewhat smaller scale exactly the same development as in Switzerland. The precise coincidence of the start of the heavy gold movements towards these countries afford enough indication that they were motivated by the same factor, capital's search for safety. Here no more than in Switzerland could the extremely low level of interest rates stem the inflow of funds. Throughout the months June—Oct. 1931, when most of the gold came in, the private discount rate at Amsterdam averaged only 1.58%. And just as the cause and the source of the gold inflow were the same as in Switzerland so the effect or rather the lack of effect it exercised upon the country's economic situation was the same. Apart from the inevitable increase in Central Bank liabilities [1]) which it produced, the inflow of gold did not have the slightest influence upon either capital or price movements despite the fact that the private discount rate in Amsterdam in 1932 fell to the absurdly low level of a quarter of one percent per annum. In the same year the loans outstanding of the four leading commercial banks were 30% below the level of 1930 [2]) while wholesale prices had declined by 33% during this period and retail prices by 13% [3]). To make the contradiction between theory and practice still more pronounced, the trade balance during this time shows a considerable improvement as the import deficit of 1932 is 36% smaller than that of 1930.

* * *

[1]) The net increase in gold and foreign exchange reserves between Dec. 1930 and Dec, 1932 of f. 431,000,000 is offset by a rise in note issue and deposits of f. 119,000,000 and f. 270,000,000 respectively while the remainder appears in a decline of loans and bills of f. 33,000,000.

[2]) Onze Groote Banken in 1932; In- en uitvoer, May 1932.

[3]) Economisch-Statistische Berichten, July 19th 1933.

Conclusions

So much for the factual record of the gold movements towards Switzerland and Holland. Rather than bearing in it the explanation of the gold flow mechanism's failure in these specific instances, it gives us a convenient background against which to view the difficulties with which the mechanism has to battle at any place in the downward phase of the business cycle. These difficulties are twofold. One is the inability of interest rate differentials to bring about a reflux of funds and the other the inability of growing bank reserves to effect an expansion of credit. Both, of course, are due to the same influence, lack of confidence, depression psychology or whatever term one wants to use for the perfectly familiar phenomenon of capitalist timidity. The desperate desire for the preservation of *capital* values naturally renders the short-term corrective which relies upon *income* considerations completely ineffective. Thus rising interest rates instead of attracting capital by the promise of higher returns repell it by the indication they give of the instability, real or imaginary, of capital values.

Through this radical change in the motives of economic conduct, through the shift of emphasis from income to preservation of capital, the natural ebb and flow of capital movements is turned into a vicious circle. The more capital flows out of a country, the higher its interest rates rise, the more visible the danger signal flying over that market, the greater the outflow of capital and so on ad infinitum till still further drains are forcibly prohibited. The reverse process takes place in the receiving country; inflow of capital, falling interest rates, assurance of stable capital values, further inflow of capital etc. And just as the cyclical factor, lack of confidence, has turned the short term corrective inside out by changing the repellent effect of falling interest rates into an attractive one, so this same factor completely checks the operation of the long term corrective of changing prices and a reversal of the balance of trade. Not only does the cyclically conditioned, fear-inspired afflux of capital occur in a period which per definitionem excludes the possibility that an expanding demand for business credit will be present to bring the influence of the gold inflow to bear upon prices, but also the sup-

pliers of this credit, the banks, refuse to meet any such demand partly because they themselves have undergone the shift of economic motive from desire for income to desire for capital conservation, partly because realising the nature of the capital influx and the possibility of its sudden reversal they desire to keep it in liquid form ready for any demand that may arise.

There now remains the question raised at the beginning of this chapter as to what is the *fundamental* explanation of the failure of interest rate differentials to govern capital movements. For as we said before, fear, the change in psychology typical of the downward phase of the business cycle and the consequent refusal of capitalists to fulfil their function of risk taking, is as old as the capitalist system itself, and still in former times it has not usually jammed the gold flow mechanism. The answer seems to lie with the enormous growth of liquid capital capable of being moved from one market to another at a moment's notice. To be sure, international capital in liquid state is not an invention of post war times. But it is an indisputable fact that the fund has grown enormously [1]), and it is this growth of the fund of international capital which explains why the psychology of a declining business cycle has been able to do so much more damage to the gold flow mechanism than in earlier days.

The reason is this. As soon as for some reason, real or imaginary, a shadow is cast upon the credit standing of a debtor market, foreign capitalists will begin to withdraw their funds. Now if the proportion that foreign funds bear to home funds in this market is not excessive, even the withdrawal of all outside credits will only produce a calm rise of money rates. The exchange will fall below par and gold will flow out, but the process will be gradual. As the market appears to support the withdrawals without notable disturbance the fear for the safety of principal which caused the withdrawal will be more than offset by the attraction of rising interest rates and consequently capital will return. But what happens if the credit of a market is impaired which holds a disproportionately large amount of foreign funds? Then the shock of the first withdrawals, their inroad upon the country's gold reserves and their effect upon money rates and

[1]) The origin of the growth of the short loan fund and the prospect that it will remain a permanent feature of modern times are dealt with in Chapter V.

internal credit conditions, will be so large that immediately foreign fears will be strengthened and the rate of interest becomes a measure of risk rather than a measure of productivity. It is as if the foreign capital were attached to the debtor market by a rubber band. Up to a point the more foreign capital you pull away from it the greater the force which pulls it back, but once the point of resilience is passed the band snaps and there is nothing to stop the outrush of capital. The greater the mass of foreign funds held and the more advanced the business cycle psychology of desire for capital conservation, the earlier this point of ultimate resilience is reached. This explains alike how in former times when the fund of liquid international capital was proportionately much less important than today, the gold flow mechanism could continue to function even in the downward phase of the business cycle, and how in the present time this mechanism, at least the interest rate corrective, seems to operate fairly successfully during the upward phase of the cycle.

To recognise the full significance of the growth of the international short loan fund as an obstacle to the operation of the gold flow mechanism, however, it must be pointed out that not only its modern *size* subjects the interest rate corrective to the danger of "flying into reverse" but that also its modern *function* renders it liable to the sudden large-scale movements which are most likely to produce just such a "kick back" of the interest rate corrective. This may sound a little mystifying. What we have in mind is this. In earlier times when the volume of international short term capital was but a fraction of what it is today it fulfilled an essentially different function. By far the largest part of a country's foreign balances were employed in foreign trade financing which meant that its claims were secured by warehouse bills and commodity collateral in general. But in our time the situation is very different. Bank deposits, call loans, finance bills etc. have come to play a greatly more important part in foreign short time investment while the relative significance of commodity bills has receded far into the background. Today short term credit transactions, more often than not, originate with financial institutions desirous of profiting by small interest rate differentials rather than with the requirements of foreign trade. Now it should not be difficult to see that this new orientation of short term

credit renders it much more sensitive to "scares" than when it was largely composed of trade bills. For the latter, even when they are in the form of foreign bank acceptances, always have commodity collateral behind them and are therefore only partially dependent for their liquidity on the financial stability of the debtor market. Not so the modern type of foreign credit which in the large majority of cases is not only not self-liquidating but also solely dependent upon the financial stability of the foreign debtor. Hence the almost hysterical susceptibility of short term foreign credits to any suspicion of irregularity or disturbance on the debtor market, and hence the sudden large scale movements of capital which just because of their suddenness and their volume are so extremely dangerous to the functioning of the interest rate corrective.

* * *

If we see, then, that the modern function of short term capital renders it particularly liable to sudden shifts; that these movements are most likely to occur in the downward phase of the business cycle when the equilibrating influence of interest rate differentials is already very weak and the long term corrective altogether incapacitated; that the volume of such movements may at any time send the interest rate corrective into reverse and put it completely out of commission; and finally that the business cycle is not an invention of gloomy theorists — if we see all these things and accept them for the unpleasant facts they are, then are we going to reinstate the old gold flow mechanism? Let the reader answer the question for himself.

CHAPTER V

GERMANY

> The enormous extent of potential transfer hung like Damocles' sword over the international money market.
> PAUL EINZIG

The financial and economic history of Germany since the War offers a happy hunting ground to the theorist in search of evidence for or against almost any economic doctrine. Especially in the field of currency and credit Germany in the short span of fourteen years has lived through practically the entire range of experience with which the theory of money in its widest sense occupies itself. In fact, so overwhelming is the amount of material accumulated during these years, so exceptionally large the proportion of it which has been preserved in statistical form and so extensive the contemporary literature dealing with it that the investigator bent on cutting his own straight and narrow path through this jungle of fact and controversy can only hope to attain his goal by putting a revere restraint on his natural curiosity [1]).

Even excluding the upheavals of the inflation period, Germany's financial and economic adventures in the brief space of time since the stabilization of the mark in 1924 appear staggering in their magnitude and variety. Within the seven years 1925—1931 the country's gold and foreign echange reserves rise by more than 200% only to fall back again to the point from which they had started; foreign capital is imported to the tune of some

[1]) For this reason the author feels free to confess that the conclusions and opinions presented in the following pages have been derived from the study of a necessarily very small fraction of the existing literature on the subject. If this would seem to render these conclusions rather too dependent on the accident of choice there may be set against this the hope that a certain intuitive selection of the essential has had an equal share with fate in determining which part of the enormous mass of material was to be studied and which part of it was to be ignored.

$ 3,500,000,000 [1]) a large part of which is quickly drained away again; the trade balance veers around from a deficit of 26% to a surplus of 40%. Ample evidence that things have been happening on a large scale in Germany. And although some of the occurences may not seem to bear directly upon the theory of automatic gold distribution practically all of them stand in some relation or other to this problem. Fully to realize the import of the lessons which the German experience has taught, therefore, it will be advisable to extend the range of our investigation not only to those developments which may be deemed to have led directly to the breakdown of 1931 but also to the wider problems of reparations, capital transfers etc. without which a complete understanding of Germany's recent monetary history is not possible.

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No doubt the most important single factor in the determination of Germany's economic development since 1924 was the unprecedented destruction of capital and the virtual stoppage of new capital formation which occurred during the War and the inflation years. The nature of this disastrous process is not always clearly understood. Only too often the mere statement that the War and the inflation destroyed capital is passed off as being fully selfexplanatory.

Actually the explanations are not as evident as they seem. For instance, can it not be argued that the huge government demand for war materials stimulated production and the construction of new factories and does not this mean increased capital formation? The answer is, of course, that the increased government demand for war materials was financed by public borrowing so that it merely effected a forced concentration of the country's savings in the war industries. Even so the diversion of savings from one branch of the national economy to another would still seem to leave the aggregate new capital formation the same as before. The actual loss of capital involved becomes clear, however, when regard is had to the consequences of this forcible concentration of savings in a few special industries. For although during time of

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[1]) The figure relates to *net* capital imports.

war the overinvestment in these industries may not show itself, as soon as normal conditions return a huge part of the new plant so constructed will turn out to be in excess of current requirements; it will not pay to work it and is therefore either adapted to other purposes at great cost or abandoned altogether. In both cases a part or all of the liquid capital which has gone to the construction of the now useless plant is definetely lost to the country [1]). A second type of war- time capital destruction shows itself in the failure of industry and agriculture to maintain the productivity and capital value of their fixed assets by regular reconstruction and renewal of worn equipment and by normal refertilization; in the hope of obtaining a clearer view of peace time requirements and of securing the needed materials at lower cost in the future, entrepreneurs allow their fixed plants to run down [2]). In addition to these two forms of destruction and impairment of *existing* fixed capital there were several influences at work to diminish the regular supply of *new* capital. First, the decrease of the national income resulting from a large part of the male population being called away from their productive activities to the task of the annihilation of life, meant a more than proportional decrease of new savings. Secondly, a considerable part of the savings still made were absorbed in government loans and used in the purchase of war materials so that where the individual abstained from consumption the government took his place by using his savings for purely consumptive expenditure. Finally, on top of the destruction of existing capital and the sharp contraction in the regular supply of new capital came the peace treaties which provided for the secession of territories accounting for 74.7% of

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[1]) Naphtali has described this form of capital destruction very clearly; "Man hat im Krieg eine Werft oder nach dem Krieg eine Wagonfabrik mit allen dazu gehörigen Maschinen ausgebaut weil damals das investierte Kapital Verwertung mitNutzen Versprach; heute ist mit den gleichen Produktionsmitteln weder im Augenblick gewinnbringende Produktion möglich, noch besteht die Aussicht auf eine solche in absehbarer Zeit. Dann wird die Anlage stillgelegt, die Baulichkeiten, die Substanzen stehen äusserlich unverändert da aber aus dem Kapitalverhältnis sind sie ausgeschieden, als Kapital sind sie vernichtet. Höchstens ihr Schrottwert kann transferiert worden". Quoted in Erich Welter's Die Ursachen des Kapitalmangels in Deutschland 1931, p. 147.

[2]) "Während der Kriegs- und Inflationsjahre war ein verhängnisvoller Raubbau am volkswirtschaftlichem Realkapital getrieben worden; die Fabrikanlagen und Maschinen waren herunter gewirtschaftet, der Viehbestand unter den Friedensstand herabgesunken, der landwirtschaftliche Boden ausgezogen" Deutsche Wirtschaftkunde, Publication of the Statistisches Reichsamt, 1933 p. 135.

Germany's iron production, 68.3% of its zinc production, 25.9% of its coal production, and 15.7% of its production of wheat and rye [1]) and which furthermore demanded (and obtained!) delivery of 5000 locomotives, 150,000 railroad cars, 5000 trucks, several thousands of agricultural machines and a large part ot the German mercantile marine [2]).

Some of the factors which had been operating to destroy existing capital and impede the formation of new capital during the war years, continued to work their disastrous effects with equal vigour in the inflation period. Notable among these is the capital destruction already commented upon which results from overinvestment in a few special industries. In the inflation it was especially the luxury demand following upon the quasi prosperity of the earler phases of the currency's fall, the extension of banking and financial business consequent upon the wave of speculation, and the general uncertainty of future markets and competitive conditions which led to the huge "misinvestments" [3]) of the period [4]). Then, no doubt, the inflation which sent prices skyrocketing and rendered all cost and market calculation virtually impossible, induced a certain amount of that consumption of capital which appears when plant and equipment are allowed to run down without the necessary reinvestment of carnings to keep them in proper shape. Finally, *new* capital formation was at a standstill in the inflation years. Not only had the national income declined sharply [5]) entailing an even sharper decline in the fraction available for saving, but also the motive for saving itself which presupposes a stable standard of value, had completely

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[1]) Karl Elster, Von der Mark zur Reichsmark, 1928, p. 116.

[2]) Welter, loc. cit. p. 145.

[3]) The word is here used for lack of a better equivalent of the German "Kapitalfehlleitung".

[4]) Naphtali has another descriptive passage dealing with this process of "Kapitalfehlleitung"; "Genau so ist es mit dem in den Inflationszeit erbauten Bankgebäude dass heute verödet ist. Kann man es nicht etwa durch Vermietung in einen anderen Wirtschaftsprozess einschalten so ist es als Kapital verloren auch wenn die Steine unverändert auf einander stehen und die leeren Klubsessel noch in leeren Empfangszimmern verblieben sind.... Das was wir heute Kapitalmangel nennen beruht wesentlich nicht auf Güter vernichtung oder direkten Güterverlusten sondern auf einer während zehn Jahre vorgenommenen falschen Verteilung des Sozialproduktes in der grosse Gütermengen in Anlageformen übergeführt worden sind die heute als Kapital als verloren zu betrachten sind" Welter, loc. cit. p. 147.

[5]) In 1923 the German index of national production stood at 56% of the level of 1913. Cf. J. W. Angell, The Recovery of Germany, 1929 p. 393.

disappeared and in its stead the depreciating medium of exchange had put a premium on consumption [1]).

* * *

From the foregoing some idea has been gained of the tremendous loss of capital which Germany suffered in the ten years following the explosion of the infamous fourth of August. Throughout the period of reconstruction it is this vast shortage of capital which plays one of the most significant parts in the development of Germany's economic and financial life [2]). The extent to which liquid capital available for production had been used up appears clearly from the very sharp decline of bank deposits. Elster gives the following table comparing the total of capital and deposits of all types of credit institutions at the close of the years 1913 and 1923 [3]).

	1,000,000 gold mark	
	Dec. 1913	Dec. 1923
Savings banks	19.7	0.1
Other banks.	13,4	2.7
Cooperative credit societies .	4.6	0.4
Insurance companies	6.3	1.2
Total	44.0	4.4

[1]) There resulted the well known "Flucht in den Sachwert"; in the case of small incomes this merely means that nothing is saved at all; for the higher brackets it meant the immobilization of stocks of commodities, liquid capital, which in this way is prevented from entering the capital market.

[2]) It is well to realise clearly what the shortage of capital exactly meant. Obviously it was the absence of *liquid* capital which constituted the country's greatest difficulty. The fixed capital, the plants, factories and agricultural lands, were to a large extent still there.But to start them on a normal production schedule, to reequip and modernize them in accordance with new technological advances, labour (or rather the means of subsistence needed to maintain labour) and raw materials were required. In fact the direct demand for fixed capital of the entrepreneur desirous of starting a new enterprise is in first instance always a demand for liquid capital as it is by the solidification of liquid capital alone than fixed capital can be produced. A demand or a need for fixed capital als such does not exist apart from the mere transfer-demand from one owner to another.

[3]) Loc. cit. p. 389. The significance of these figures must not be overestimated as the shrinkage of money values obviously cannot pretend to give a accurate quantitative impression of the actual diminution of physical capital; Cf. the Appendix attached at the end of this chapter.

This tremendous shrinkage appears even larger if it is recalled that gold prices at the end of 1923 were some 26% higher than in 1913 [1]). At the same time the banks' capacities for creating new money capital by an expansion of deposit credit were sharply restricted by the shortage of currency for reserve purposes. On Dec. 31st 1923 the total volume of all types of currency outstanding came to no more than 2,273,000,000 gold mark [2]) compared with 5,741,000,000 on July 23rd 1914 [3]) and no doubt only a very small part of this was available for banking reserves. Nevertheless it should be kept in mind that while the currency supply may have played some role in making the shortage of real capital more acutely felt it is the latter which constituted the fundamental difficulty of Germany's post war position [4]).

Meanwhile, the moment currency stability was achieved in the end of 1923 and the basis for normal business calculation had been reestablished a wide demand for credit made itself felt. So pressing were these demands that the Reichsbank in addition to the heavy loans of the Rentenbank to the government, rediscounted between the end of 1923 and the end of April 1924 for more than 1,000,000,000 gold mark. Of course this represented an extension of credit far in excess of the meager volume of real savings available to the capital markets and as a result prices rose, imports increased and the trade balance deteriorated to such an extent that in the spring of that year the new currency was again quoted abroad a discount of no less than 15% [5]). In April the authorities recognise the danger inherent in this attempt to "crank up" [6]) the German economy and decide to put a drastic stop to the renewed inflationary tendencies by a policy of credit rationing [7]).

[1]) Cf. Elster loc. cit. p. 474.

[2]) Elster, loc. cit. p. 480.

[3]) Interim Report of the Agent General for Reparation Payments, May 30th 1925 p. 44.

[4]) "Bei der Betrachtung des hohen Zinses in Deutschland muss man.... die monetären Faktoren als primäre Momente ausschalten. Soweit diese Faktoren eine Rolle spielen, handelt es sich nicht um primäre, sondern um sekundäre Ursachen d.h. es sind Erscheinungen die selbst wieder die Folgewirkung der Umstände sind die den hohen Zinsfuss hervor rufen" Wirkungen und Ursachen des hohen Zinsfusses in Deutschland, edited by Karl Diehl, 1932, p. 862.

[5]) Cf. Walter Horn, Die währungs-, finanz-, und wirtschaftspolitischen Folgen der deutschen Währungsstabilisierung, 1930. Also Hjalmar Schacht, The Stabilization of the Mark, 1926.

[6]) Schacht, loc. cit.

[7]) The difference between market rates of interest and the Reichsbank's rates was such that the latter was completely in control of the situation. At the beginning of

The hardships which this policy inflicted were fully justified by its results. Within less than two months of its inception it had become possible to meet all demands for foreign exchange which until the 20th of May were only filled for about one percent. Before the Dawes plan with its R.M. 800,000,000 external loan and its provision for a new currency and a new Central Bank came onto the scene, therefore, the German currency had already been fully and definitely stabilized. The third of June 1924, the date whence all applications for foreign exchange are again regularly and fully met, marks this turning point in German monetary history and the definite ending of the inflation nightmare [1]). "When in August 1924 the German government went to London it could look back on an economic system which had been weakened indeed but also purged and above all on a currency made stable.... It is true that the reverse of the medal was such as to break the heart. The German people which before the War had known wealth and prosperity now knew that it had been put back to the position of the sixties of the last century. Arbitrary and irresponsible as the war itself the inflation had claimed its hecatombs. Tears, bitterness, and despair beyond measure were the end of it [2])".

* * *

And thus Germany goes to London, a healthy body again rid of the devastating fever of inflation but wasted away to the point of exhaustion by the galloping capital consumption of the last ten years. The severity of the capital famine is reflected in the very high rates demanded for credit accomodation. In the course of August 1924 the banks took from 18% to 21% on commercial paper and from 24% to 27% on credits on current account [3]). Yet despite the obvious and extremely pressing need for capital im-

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1924 money for one month in the open market in Frankfort was quoted at 300 percent per annum while the reichsbank's rediscount rate stood at 10%. The cause of these fantastically high rates was the persistent fear of renewed depreciation of the currency; "Erst einige Zeit nach der Stabilisierung der Mark war der tatsächliche Zinssatz von der Risikoprämie für fortschreitende Entwertung der Mark befreit". Diehl loc. cit. p. 386.

[1]) C. Elster, loc. cit. p. 400.

[2]) Schacht, loc. cit. p. 165.

[3]) These rates were minimum rates applying to first class risks only which under the requirements of the time were very scarce. Wirtschaftskurve Nov. 1924 p. 398.

ports to set Germany's productive machinery in motion again (for only in this way could a basis be laid for the resumption of domestic capital formation) the country was given the task to provide a net annual capital *export* out of its own national production rising from R.M. 200,000,000 in the year August 31st 1924 —Sept 1st 1925 [1]) to R.M. 1,220,000,000 R.M. 1,500,000,000 R.M. 1,750,000,000 and R.M. 2,500,000,000 in the four years following.

The popular belief to the contrary it was not so much the transfer of these huge sums abroad as the demands they made upon the domestic capital markets which constituted the greatest burden to the German economy. The reason why this is so lies with the so-called "Transferschutz". As the Berlin banker Rudolf Loeb has very enlighteningly explained in the discussions organized at Pyrmont in June 1928 by the Friedrich List Gesellschaft, the Transferschutz was much more than a guarantee of Germany's currency stability. Loeb's interpretation of the relevant provision in the Dawes plan is that the experts did not mean to postpone transfer of the annuity only when the Reichsbank had come to the end of its tether and could no longer supply the market with foreign exchange or gold without encroaching upon the absolute minimum required for note backing, but *whenever continued transfer would so impair the Reichsbank's reserves as to endanger the safe maintenance of a sufficient credit and money supply.* That is, the Transfer schutz was not merely designed to guarantee permanent convertibility of the mark regardless of the sacrifice of internal credit stability which this might require *but to guarantee this stability itself, to postone transfer as soon as it could no longer safely be carried on without a sharp contraction of the volume of currency and credit outstanding* [2]). If this is the correct interpre-

[1]) The gross annuity for the year 1924—25 was set at R.M. 1,000,000,000 but since R.M. 800,000,000 was secured directly from the Dawes loan the net burden on the German economy for this year is reduced to R.M. 200,000,000.

[2]) That the experts should have worded this guarantee against the disturbing effect of the transfer upon Germany's economic life so as to mention only the protection against disturbance of currency convertibility, Loeb explains in the following manner; "Wenn die Sachverständigen diesen Schutz auf den Transferschutz abgestellt haben, so haben sie das sicherlich getan weil sie überhaupt kein andere Mittel gesehen haben die Leistungsfähigkeit der deutschen Wirtschaft zu erkennen als die Beobachtung derjenigen Wirkungen die man in der Währung ablesen kann" Das Reparationsproblem; Verhandlungen und Gutachten der Konferenz von Pyrmont, edited by Edgar Salin, 1929, p. 203.

tation of the meaning of the Transferschutz then there simply is no transferproblem. Of any express pressure of the transfer upon the balance of payments exercised purposely to make it yield a surplus by the familiar process of credit contraction and export stimulation there can be no question under this definition [1]).

The reparations charge, therefore, was in first and last instance a burden upon Germany's internal economy. Although its collection in general and special taxes meant that it was actually paid out of income the result was that the fraction of that income which became available for the starved capital market was diminished by all or a part of the annuity. At the rate of R.M. 2,500,000,000 per year which became effective in 1928 the annuity absorbed an amount equivalent to almost 50% of Germany's annual new capital formation. [2]). It is necessary to keep this incidence of the reparations charge well in mind as it is of direct bearing upon the transfer of the annuities whose history we must now consider. For let it not be thought that Germany's experience with reparation transfers is irrelevant to the study of the gold flow mechanism. On the contrary. It affords not only an excellent test case of the efficiency of that mechanism but also a very striking example of the great prestige which it but recently enjoyed with practical men, politicians, and economists alike. Reparations, it was said, will be paid in the following manner. Gold will flow out setting in motion the familiar process of reciprocal effects upon credit, interest rates, and prices in the debtor and creditor countries until the subsequent alteration of the balance of trade enables the tribute paying country to discharge its yearly obli-

[1]) Whether the Agent General shared this view of his duties under the transfer protection clause cannot be determined from the record of his management for throughout the duration of the Dawes plan the foreign exchange market has never been such as to put the meaning of the transfer clause to the test; sufficient exchange has always been available for the annuities to be transferred without calling into question the desirability of a temporary postponement. But the logical implication of the clause as well as its phrasing are very strongly in favor of Loeb's interpretation of the Agent's duties. Not only does the text speak of the "part of the German capital which can be transferred without risk of damage" but also the narrow interpretation of the Transferschutz as guaranteeing against the impairment of currency convertibility regardless of the credit contraction which this might require, would render it practically valueless and therefore without meaning.

[2]) According to estimates of the Institut für Konjunkturforschung the average annual formation of new capital in Germany over the period 1924—1928 came to about R.M. 5.600,000,000. Diehl. loc. cit. p. 386.

gations entirely in the form of export surplusses. This is the Millsian tribute transfer theory, evidently a simple application of the gold flow theory to the case of large and recurrent foreign payments. We may well ask ourselves, therefore, why this process of gold outflow, falling prices and export surplusses which was so confidently relied upon to enable Germany to pay reparations has completely failed to realize itself for in asking this question we are inquiring directly into the failure of the gold flow mechanism.

Is it due to the existence the Transferschutz which by prohibiting an undue outflow of gold and foreign exchange did not allow the natural pressure of the tribute payment to produce the theoretical results on credit, prices, and the balance of trade? Doubtlessly the Transferschutz might well have operated in this fashion. But, as we already know, it never has been applied so that for all practical purposes it might not have existed; it, therefore, can give no answer to the question why the tribute payment produced results so strikingly at variance with the expectations of theory. The next explanation that suggests itself is, of course, that the great shortage of capital in Germany vitiated the operation of the classical tribute transfer mechanism inasmuch as by attracting an influx of funds from abroad it provided sufficient foreign exchange to make full transfers. This is the wellknown version of the German reparation payments and in essentials it is no doubt correct. The classical theory can then be cleared from the reproach of lack of realism by the reservation that it is intended to apply to "normal" situations only and that Germany's condition in 1924 and the years following suffering as it was from an unprecedented capital shortage, was anything but normal.

But apart from the unsatisfying nature of theories which must constantly be hedged in by reservations of this type, the vindication does not go to the bottom of the problem. For it implies that if Germany had not suffered from capital shortage, if it had been in "normal" circumstances (and if there had been no Transferschutz) the transfer would have taken place along the lines indicated in Mill's theory of gold outflow, contraction of credit etc. Now there is good reason to believe that even had conditions been "normal" the transfer could not have operated in this manner.

Rather it seems probable that the internal collection of the huge sums required would have diminished the fraction of the national income destined for saving and for the capital market by so much that the resulting rise of interest rates [1]) would immediately attract foreign capital and the tribute payment would be made out of foreign loans without affecting in any way the gold supply, the volume of credit, prices, or the balance of trade.

In idealised form the process may be pictured as follows. Consider two countries whose relations are exactly in balance; that is, no net capital movements of any duration occur and the respective levels of interest rates are identical. Now let one of these two countries suddenly find itself obliged to pay a large annual tribute to the other. As soon as the debtor government begins collecting these sums internally interest rates will rise. [2]) But as the debtor country's interest rate structure moves out of line with that of its creditor funds will begin to flow from the latter to the former. In our idealised situation the interdependence of the two markets will be so sensitive and the adjustment of any disequilibrium so smooth and so rapid that the capital absorbing effect of the internal collection of the tribute will be immediately offset by the inflow of capital from the creditor country and no payment at all will be made between debtor and creditor. In the debtor country the taxpayers pay the government, the debtor government pays the creditor government, the creditor government pays its taxpayers and the latter loan the same sum back to the debtor taxpayers; in the aggregate nobody has lost or gained anything.

Does the operation of this wellknown process of making foreign payments out of foreign loans thereby obviating any stress on both the exchanges and the internal capital market,

[1]) Cf. Das Reparationsproblem p. 238—239. "Der ursächliche Zusammenhang ist.. der dass die Reparationsaufbringung im Inland teilweise eine Einschränkung der Kapitalbildung, eine Zinzfusssteigerung hervorgerufen und dadurch das ausländische Kapital nach Deutschland gelockt hat" Welter, loc. cit. p. 109.

[2]) Of course the mere collection of revenue will not affect the level of interest rates when it is led back to the market in the form of government expenditure as it always is in normal circumstances. But in the case of the tribute paying country this condition is not fulfilled. The sums collected are withdrawn from the national economy and must therefore raise the level of money rates. As soon as they are paid over to the Central Bank in exchange for gold and foreign bills required for transfer. The outflow of gold is the form which the export of capital takes and as such is merely instrumental bringing about the rise of interest rates which has its real cause in the government demand for funds.

indicate that the Millsian theory of capital movements suffers from faulty reasoning? Not so. It leaves Mill's theory of the automatic transfer of *voluntary* payments unchallenged. But it does indicate one defect of the Millsian theory which is that it fails to differentiate between capital movements which are the result of voluntary economically motivated business transactions and those which are in the nature of politically enforced tribute payments. The difference between these two types of capital movements is not hard to see, however, and becomes evident when regard is had to the circumstances that give rise to foreign loans on the one hand and tribute payment on the other hand. It is an essential part of Mill's theory that the cause of voluntary capital movements is to be found in a difference of interest rate levels between two countries; in other words foreign loans will only be made when a higher return can be earned abroad than at home. In such a situation the transfer mechanism of gold outflow, credit contraction, rising interest rates and export surplusses accompanied by the reverse process in the borrowing country can operate undisturbed *because essentially it is correcting a previously existing disequilibrium*. But when a country is called upon to make a tribute payment there is no reason at all to expect that this payment will be correcting an existing disequilibrium of interest rates for it is the central point of the entire theory that any such disequilibria will always be in process of evening themselves out automatically. The presumption is, therefore, that the level of interest rates in the tribute paying country is generally in line with foreign levels [1]). If under these conditions funds are withdrawn from the internal capital market a disequilibrium will be created which will set in motion the same corrective tendencies which are instrumental in starting a voluntary loan movement. The case is perfectly clear. With a voluntary foreign loan the transfer can continue to operate because it is reestablishing equilibrium; with a tribute payment it cannot operate because it creates disequilibrium and therefore calls the corrective tend-

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[1]) Before the War this theoretical ideal of an identity of interest rates was indeed very closely realised, at least among the more advanced Western nations. In the period 1909—1913 the differential between the yield on government securities in Berlin and London and Paris, subsequently Berlin's reparation creditors, averaged less than one half of one percent. Cf. table on p. 116.

encies into play which start a movement of capital in the opposite direction leaving the net transfer of funds exactly nil.

It is this essential difference between a *politically imposed tribute payment* and an *economically motivated foreign loan* which Mill failed to see and it is this same difference which largely accounts for the utter failure of the transfer mechanism to function. Note that this explanation of the mechanism's failure is of a radically different type from those offered in earlier chapters. There we found that the gold flow theory did not work itself out in life because of certain changes and resistances in economic reality which it had not taken into account. Unimpeachable in its logic the theory failed to realize itself because its conclusions were based on an incomplete observation of fact. But in the present case the situation is reversed. This time it is not because the theoretical expectations are built on an abstraction of reality that they were not fulfilled, but because they suffer from lack of logic, because the conclusions do in no way follow from the premiss. The theory is not only invalid as it was found to be at other points but it is also untrue. With this in mind it becomes difficult to understand how the Dawes plan experts ever expected Germany to pay out of its own pocket [1]).

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Now the surprising thing is that despite an inflow of capital from abroad totalling close to R.M. 15,000,000,000 or about $ 3,500,000,000, interest rates in Germany fail to show more than

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[1]) Not only did they put their trust in a transfer mechanism which is wholly useless for tribute payments but also they made doubly sure that not a penny would be paid by instituting the Transferschutz thereby depriving the transfermechanism of its last chance to function. They realized that Germany could only pay through an export surplus. Yet they refused to let reparation payments exercise pressure on the balance of payments which alone could turn the import excess into an export excess by instituting the Transferschutz, and still they apparently believed that the transfermechanism which they themselves had put out of gear would nevertheless operate to transmit payment despite the fact that in the case of tribute payment not even the internal collection of the tribute can take place without calling into play the corrective of foreign loans which renders goods or gold transfer unnecessary. Let it not be thought that these observations are meant to accuse the Dawes plan experts of lack of perspicacity. The author fully realises that just as autopsy is an easier way of establishing the nature of a fatal disease than diagnosis of the symptoms exhibited by the living organism, so retrospective critisism of past action requires far less insight than the action itself.

a modest decline [1]). True, there were times as during the sharp business recession in 1926 and again in 1930, when short term money rates fell to something approaching the "normal" foreign level but except for these temporary technical reactions the average cost of money in Germany remained very high [2]).

The question so arising is what can account for this failure of interest rates to react to the huge offerings of capital. The answer is not difficult to find. For while on paper Germany borrowed in the neighbourhood of R.M. 14,500,000,000 (net) in the period 1925—1929 the net import of real capital came to no more than R.M. 3,484,000,000. The figure is arrived at by an analysis of the composition of Germany's net debit balance on current account of the balance of payments. For it is there that the form which the capital imports have taken most clearly appears. This will be clear if it is remembered that in balance of payment bookkeeping capital imports or exports are merely the offsetting entries of the deficit or surplus on current account. The latter are the known factors which can be calculated with a fair degree of accuracy. Once the balance on current account bas been determined a corresponding amount of capital imports or exports is entered on the other side of the ledger to make the debits and credits balance

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[1]) "This much is clearly shown by the development up to date (1928) foreign loans have not been able to end the scarcity of capital prevailing in Germany" A. Philips, Economic Aspects of Reparations and Interallied Debts, 1930, p. 103.

[2]) The table shown below gives a picture of the development of money rates during the period of heavy capital imports.

	Money for one month % [1]	Yield on 6% mortgages % [1]	Yield on industrial bonds % [2]	Net capital imports %
1925 . . .	10.82	9.0	8.80	R.M. 3.135 mill.
1926 . . .	6.57	7.75	7.06	653
1927 . . .	7.82	5.33	7.69	3.925
1928 . . .	8.22	6.9	8.00	4.298
1929 . . .	8.97	7.4	8.57	2.667
1925—29 .	8.50	7.6	8.04	14.678

1 Statistisches Jahrbuch.

2 Wirkungen und Ursachen des hohen Zinsfusses in Deutschland, Karl Diehl, 1932, p. 395.

The capital import figures are derived from the official balance of payment estimates published annually by the Statistisches Reichsamt.

as of course they always must [1]). For the period 1925—1929 the deficit on current account is made up of the following items, totalled for the five years included;

		1.000.000 R.M.
Reparations incl. deliveries in kind		8,332
Interest payments and debt dervice		1,887
Import excess [2])	5,940	
Service surplus	2,453	
Import deficit	3,487	3,487
Gold and for. exch. increase at the Reichsbank		972
Total		14,678

It appears from these figures that by far the largest part of the capital imports into Germany in the years 1925—1929 were in fact "paper exports" creating foreign claims against Germany

[1]) Normally the *known* capital movements which can be entered against the net balance on current account do not exactly balance due to the imcompleteness of statistical information; the difference is then usually entered on the capital side as invisible capital movements. This procedure while logically perfectly valid does not always do justice to the facts since the discrepancy between the balance on current account and the offsetting known capital movements may be due to inaccuracies in the current item estimates as well as to the lack of exhaustive data on the movement of capital; "In der Tat ist auch in der deutschen Zahlungsbilanz der unaufgeklärte Saldo keineswegs ausschliesslich ein solche der Kapitalbewegung.... wenn auch zu den unafgeklärten Resten sicherlich ein grosser Teil der statistisch am schwersten erfassbaren Kapitalbewegung gehört"; Zur Statistik der Kapitalbewegung in der deutschen Zahlungsbilanz, Bankarchiv 1.7.30.

[2]) The figure represents the excess of imports exclusive of deliveries in kind on reparation account. The place of these reparation deliveries in the balance of payments is not always clearly understood. Thus Prof. Angell in his "Recovery of Germany" (p. 303) gives a condensed picture of the German balance of payments in which he includes deliveries in kind in the balance of trade item while deducting them from the reparation item. It is easy to show that this is not good bookkeeping. To find the net balance on current account deliveries in kind must either be included in both the trade balance item and the reparation item which is the way the Statistisches Reichsamt enters them, or they must be deducted from both these items. If it is considered how the payments in kind were actually effected this will be fully clear. What happens is this. The German exporter on completing foreign delivery receives payment in marks from the German government which in turn is credited by the Agent General on reparation account for the amount of the payment. At the same time the foreign importer pays the purchase price of the German goods to his government which is then debited on the Agent's books. The entire transaction is liquidated without the creation of any foreign exchange. In a final accounting of the net balance on current account, therefore, the exports taking the shape of deliveries in kind must either be considered not to have created any foreign credits at all (they must be deducted from the total exports or added to the import excess) and their amount must be deducted from the gross reparation debit or they must be considered as ordinary exports giving rise to the creation of new foreign exchange and the reparation item must be carried in full.

without bringing any real economic capital into the country. In the case of reparation payments as well of interest payments the capital imports which made the discharge of these obligations possible left the supply of actual economic capital in Germany absolutely unchanged. A brief consideration of the technical process by which the foreign loans were used to pay reparations will help to make this clear.

Generally speaking private or public borrowers in need of mark funds contracted loans abroad in foreign currencies. These currencies were turned over, through the foreign exchange market, to the Agent General in exchange for the marks which the latter had collected within Germany from general and special taxes. Evidently this transaction leaves the supply of money capital as well as that of real economic capital in Germany unaffected except inasmuch as the funds raised from the German taxpayers for the reparation annuity are obtained at the cost of consumption standards. In that case the supply of economic capital is actually increased not by any import from abroad but by the additional saving which the internal collection of the annuity has enforced. Where the funds are not derived from a contraction of consumption but from a decrease in the part of the national income which would otherwise be saved anyway, this growth of internal saving does not occur. The savings which normally would have been invested in German industry and commerce by the savers themselves are then as it were handed over to the foreign lender for him to relend back to German borrowers at his discretion. The amount of investment remains the same but the selection of capital takers as well as the ownership of the investment is shifted from the German taxpayer to the foreign banker and his clients.

Whether the intricate working of the tribute transfer mechanism leaves the rate of new capital formation unchanged or whether it accelerates it, the important point is that in both cases it transfers the ownwership of the new capital (or the mortgage lien on it) from the German taxpayer to the foreign capitalist. Right here lies one of the fundamental causes of the catastrophic drain on Germany's gold and foreign exchange holdings of later years. *For while the automatic functioning of the tribute transfer by attracting capital imports prevented an outflow of economic capital and thus allowed the badly needed formation of new*

capital to proceed unhampered, it transferred title to a large part of these new capitals to foreigners thereby opening the way for a later external drain. In the discharge of the annual public liability which the Transferschutz had rendered a conditional liability, Germany accumulated a private liability which piled up year after year unprotected by transfer guarantees of any kind.

The payment of private interest charges out of foreign loans works in the same manner; the supply of real capital remains unaffected while a growing foreign indebtedness takes the place of the previous annual charges. Together these two items of reparations and debt service have accounted for R.M. 10,219,000,000 of the R.M. 14,678,000,000 of estimated capital imports. Of the remainder a little less than one billion R.M. has come in in the form of gold and foreign exchange, money capital, leaving only about R.M. 3,500,000,000 of real capital imports [1]). This amount and this amount alone can be said to represent the foreign contribution to the German capital market. The remaining eleven billions of capital imports are purely nominal and have not added one particle to the supply of real economic capital. And since it is the supply of real capital and not of the money capital enshrouding it which determines interest rates in the long run, the relatively small effect of the inflow of foreign funds upon the level of German interest rates becomes fully comprehensible [2]).

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Having analyzed the origin of Germany's demand for capital and the nature of the capital imports to which it gave rise the point has come where we may ask what fresh light the insight so

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[1]) It is true that the actual import excess over the period 1925—1929 comes to R.M. 5,940,000,000 but since this is offset to the extent of R.M. 2,453,000,000 by services rendered to foreigners, the net import of economic capital would appear to amount to only R.M. 3,487,000,000. For although the sale of immaterial goods does not mean a direct export of physical capital it is clear that in most of the important items included in the service income such as receipts from shipping and the tourist trade, German capital in the form of coal, food, energy, etc. is used up and lost to the German market just as if these goods were turned into export products and went to swell an eventual export excess.

[2]) The view here developed and the ambiguities of the term capital involved in it are set out in greater detail in the appendix attached at the end of this chapter.

obtained can throw upon the breakdown of the gold flow mechanism. Evidently the mere demonstration that under the Dawes plan Germany had become heavily indebted to foreign countries is not enough to explain the collapse of 1931. For there is nothing in an inward capital movement per se that is in any way incompatible with the proper functioning of the international gold standard as both the theory of capital transfer and the factual record of capital movements in the nineteenth century have shown. What then are the peculiarities of the German capital import which distinguish it from those of earlier times? To answer this question let us begin with a brief recapitulation of the findings of the foregoing pages.

Our review of Germany's history under the Dawes plan opened with the sad spectacle of a once rich country lying bare, denuded of practically all its liquid capital by the terrible claims of war and inflation. We saw how the existing dearth was further aggravated by the imposition of a tribute obligation which in a few years' time was to rise to about 50% of the estimated annual formation of capital. Not only did this recurrent demand on the internal market raise the price of capital through the natural operation of the law of supply and demand but it also added still another fraction to the existing rates by the disquieting influence which this huge weight pressing upon the German economy exercised upon the minds of investors at home as well as abroad. The fear for the safety of their investments so inspired which was given further fuel to feed upon by the inherent instability of the post-war political situation, made itself felt partly in the inclusion of a risk premium in the price of capital [1]), partly in the predominance of short term offerings and the great scarcity of long term capital [2]). Evidently the very large differential between interest rates within Germany and abroad [3]) could not fail to attract a large afflux of capital from countries with a materially lower level of interest rates. But as we have seen a large part of these capital imports were purely nominal and did not bring a particle of real economic

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[1]) Cf. Diehl, loc. cit. p. 994.

[2]) "Die Furcht vor Inflation und das Gefühl der Unsicherheit drängte immer wieder zu eben jener Form der kurzfristigen Verschuldung der die grössten Gefahren in sich barg" ibid p. 383.

[3]) Diehl shows the following figures of comparative interest rates, p. 389;
See table at the bottom of p. 112.

capital into the country. What they did was to postpone actual payment of reparations and to pile up these accumulating debts on the strained backs of private borrowers. The danger to the stability of Germany's money and credit structure of this automatic conversion, shifting, and postponement of the reparations burden is not difficult to see. It becomes evident when it is remembered that whereas a natural capital movement such as those towards the United States or the Argentine in the last century must take the form of commodity imports and thereby increases the capital base from which the debtor country ultimately can repay its obligations, Germany's capital imports added nothing to the supply of capital in the country and merely transferred its ownership from Germans to foreigners or otherwise gave foreigners a lien on it.

The reparations-origin of a large part of the capital imports, however, is not the only difference between the movement of capital into Germany and the pre-war capital movements. After all, even if there had been no reparations a certain amount of capital would still have been imported into Germany in the first years after the stabilisation, and as a matter of fact a certain amount of real capital *was* imported over and above that which went to pay for reparations and interest charges. That these real capital imports should prove to be greatly more dangerous to the continued stability of the receiving country than those of earlier times is ex-

	monthly averages					
	Berlin			London		
	yield on government securities	private discount rate	rediscount rate	yield on government securities	private discount rate	rediscount rate
1909—13 .	3.67	3.83	4.70	3.18	3.29	3.75
1925 . . .	8.67	7.62	9.15	4.43	4.13	4.57
1926 . . .	6.63	4.92	6.74	4.75	4.47	5.00
1927 . . .	6.91	5.49	5.83	4.75	4.24	4.65
1928 . . .	7.67	6.57	7.00	4.69	4.15	4.50
1929 . . .	7.82	6.87	7.12	4.77	5.25	5.50

plained by *the greater volatility of modern capital* which renders it capable of being moved rapidly and on a large scale from one market to another. This volatility is due largely to two factors; the post-war growth of international short term credit and the increasing importance in foreign investment of stock exchange securities. In former times by far the largest part of a country's foreign investments was in the form of long term securities while its short term credits abroad were usually not far in excess of the amount necessary for the carrying on of its foreign trade financing. Since the war the situation has changed greatly in this respect. Foreign short term credits in the form of bank deposits, call loans, finance bills etc. have come to play a very much larger part than in the past and especially so in Germany. And not only has the amount of foreign short term funds at the disposal of the banks increased very rapidly but industry, commerce, yes even the public treasuries have also obtained large short term loans from abroad [1]).

Exact figures of the course of Germany's short term foreign debts are not available but a sufficiently accurate notion of their importance may be gained from the investigations of the Wiggin and Beneduce Committees [2]). In the report of the latter of these two committees it is said that "the total of advances repayable by Germany at short term outstanding at the end of July amounted to nearly R.M. 12 milliards". A little earlier the same report declares that in the first seven months of 1931 about R.M.

[1]) "Nach den letzten Schätzungen der Reichsbank betrug die Summe der kurzfristigen Kredite die deutsche Industrie- und Handelsunternehmen unmmittelbar bei fremden Geldgebern aufgenommen hatten im Sommer 1931 über 5 Milliarden Mark... Früher waren es sicher erheblich höhere Beträge". Diehl loc. cit. p. 392.
The following table showing the average cost of money on the German money and capital markets gives some idea of the preponderance of short term funds;

	Money Market	Capital Market
1909—13 . . .	4.41%	4.22%
1925	9.20 "	10.53 "
1926	5.94 "	8.74 "
1927	6.32 "	7.91 "
1928	7.13 "	8.62 "
1929	7.69 "	9.08 "
1930	5.14 "	8.62 "

Ibidem p. 411.

[2]) Economist of August 22nd 1931, and January 2nd 1932.

3,000,000,000 of short term credits had been withdrawn so that the conclusion is reached that at the end of Dec. 1930 the total of short term debts came to close to R.M. 15,000,000,000 or about half of Germany's entire foreign indebtedness. If it is seen that as against this liability the Wiggin report estimates Germany's liquid claims on other countries at the end of 1930 at R.M. 5,300,000,000 (inclusive of the Reichsbank's foreign exchange holdings) and that the addition of the Reichsbank's gold stock raises the total of current funds available for foreign payment to only R.M. 7,900,000 or a little more than half the short term liabilities, the great weakness of the German balance sheet position becomes fully evident. It will be asked what caused this disproportionate growth of short term credits. Several answers are possible. First and foremost ranks the disquieting influence of the reparations charge already commented upon. Secondly, the fear, never quite subdued since the black days of 1923, of a renewed currency depreciation. Third, the general feeling of political instability which with the exception of a short breathing spell after Locarno, continued to keep financial nerves on edge. Fourth, the liquidity complex setting in with the outbreak of the depression. Fifth, the spread of the gold exchange standard [1]). Finally, the world wide growth of productive efficiency, especially in the United States of America, which in augmenting the total of new capital resources also augmented the part of it which was to be kept in liquid form.

Next to the growth of short term foreign credits the volatility of international capital is further augmented by the increasing importance in foreign investment of securities issued and listed on the exchanges of the debtor country [2]). Where the foreign investor has bought stocks and bonds of the debtor country issued and listed on the markets of his own country, he is, of course, unable directly to withdraw his funds from the debtor market [3]).

[1]) Cf. Alfred Lansburgh, Die Grossbanken im Krisenjahr 1931; Die Bank, April 6th 1932.

[2]) "Im übrigen vollzieht sich die Kapitaleinfuhr.... neuerdings häufiger in Gestalt der Aktienbeteiligung des Auslandes.... und es hat fast den Anschein als solle diese Form der Kapitaleinfuhr in der neuen Aera des Kapitalimportes der wir allem Anschein nach entgegen gehen, eine besondere Rolle spielen" Wirtschaftskurve, June 1929 p. 138.

[3]) It is probably true that even in this case a sudden flight from the foreign country's securities resulting in a demoralization of prices on the creditor country's exchanges, would have some effect on the debtor market inasmuch as it might shake foreign confidence in this market and thus lend to a direct withdrawal of short term balances.

But where, as happened on a large scale in Germany, the foreign investor buys securities *on the debtor country's exchanges* the immunity of that market no longer exists as the investor can at any time realize his holdings and convert the proceeds into his own currency [1]).

Finally, the movement of capital into Germany shows still one other difference with pre-war capital imports. We have in mind the role played in the direction of capital flows by political motives. In the degree to which these motives do play a role next to or to the exclusion of purely economic motives, the chances that they will disturb international balance and will end up by causing severe convulsions are correspondingly increased. For since theory teaches us that capital flows as well as gold flows occur to maintain economic equilibrium (in the form of an approximation towards international equality of interest rates and price-levels) it is clear that capital flows which occur as the result of political motives or those which, economically justified, do *not* occur because of political considerations must tend to upset economic equilibrium. That in post-war times this political moment has had considerable influence on the direction of foreign investment can hardly be denied. One need only consider the geographical distribution of Germany's foreign debts incurred since the stabilization to recognize the truth of this assertion. According to the Layton report France which in the post-stabilization period had a larger balance available for foreign investment than any other European power, accounts for only 5% of the total of German loans issued abroad [2]), this while from 1927 onwards the differential between French and German interest rates was considerably greater that that between Berlin and Londen or Berlin and New York [3]). Can this virtual absence of all French participation in the German capital market be ascribed to any-

[1]) "In dieser Richtung war die Beteiligung des Auslandes an deutschen Wertpapieren die auf deutschen Inlandsbörsen gehandelt wurden vielleicht noch gefährlicher. Denn diese Werte konnten bei ein eintretender Panik ohne jede Kündigung veräussert werden", Diehl, loc. cit. p. 383.

[2]) Even this amount only represents the tranches of the Dawes and Young loans issued in France which were distributed by international agreement. Of any voluntary French participation in German long term financing the Layton report shows no trace.

[3]) Diehl has the following interesting table (p. 398) reflecting "den Grad von Hemmungen die den Kapitalausgleich untereinander behindern...."

See note on page 116.

thing but national bias? The question hardly needs an answer.

* * *

The nature and the causes of Germany's financial position on the eve of the outbreak of the world depression should now be sufficiently clear. Saddled with the accumulated burden of five years' reparation annuities and an additional load of "natural" debt, never knowing from one moment to the next when it may be called upon to pay off these immense debts, the unhappy victim of a rapidly growing political unrest within its borders, the country laboriously plods along towards what now seems as the inevitable collapse of 1931. And even in those days there were many who through the heavy veil of daily events saw the end that was to come [1]). But their warning voices are lost upon the ears of the great majority of politicians, international bankers, and economists whose attitude towards Germany as a credit risk was governed by a mixture of new era optimism and faith in the ultimate

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Interest rate differentials between Berlin and foreign centers

	monthly averages of yields on government securities	
	London	Paris
1909—13 . . .	—.49	—.48
1927	—2.16	—2.67
1928	—2.98	—4.14
1929	—3.05	—3.58
1030	—2.97	—4.54

See also Gerhard Schacher, Die Hemmungen des innereuropäischen Kapitalausgleiches, Europawirtschaft, Jan. 1931.

[1]) "Was würde nun passieren, meine Herren, wenn.... durch Verknappung der ausländischen Kredits ein starker Entzug von Gold und Devisen aus der Reichsbank in die Erscheinung treten oder in der sonst eine erhebliche Beunruhigung im Auslande eintreten würde? Nach der allgemeine Theorie.... würde weiter nichts passieren als dass durch die Erhöhung des Zinssatzes ausländisches Geld in verstärktem Masse nach Deutschland strömen würde. Die Sicherheit dass das heute unter allen Umständen ebenso geschehen würde besteht nicht.... ich kann mir ohne weiteres vorstellen dass wir gerade dadurch in eine ungeheure Verlegenheit geraten würden dass nur nicht einmal die Kredite weiter gewährt werden die wir schon haben...." Rudolf Loeb in an address to the Conference of Pyrmont on June 5th 1928; Das Reparationsproblem, p. 183.

"Umstellung" of the German balance of payments which would enable her to begin paying interest and amortization on her obligations out of income. Had not theory as well as experience taught that sooner or later a debtor country will see interest charges and other current debits rise above the new credits raised abroad and thus by the familiar process of pressure on the exchanges, gold supply, credit structure and prices, be enabled to make payment out of a growing export excess? [1]) And so, unheeding the numerous qualifying factors such as the inability of the transfermechanism to effect tribute payments, the existence of the Transferschutz, the preponderantly short term nature of the funds invested in Germany, the volatility of a large part of the long term investment, and last not least the great difficulties inherent in a lowering of the level of prices undern modern industrial conditions [2]) — overlooking or ignoring all these factors which have rendered reliance on the automatic transfer theory about as safe a calculation as reliance upon the sweepstake to pay last years bills, the world at large remained unruffled at the spectacle of Germany being wallpapered from top to bottom with foreign paper claims.

The swift succession of events which by the summer of 1931 had completely uncovered the vulnerability of Germany's position may be deemed to have begun with the rapid outward movement of funds attendant upon the latter phases of the Young plan deliberations [3]). When in April 1929 the negotiations for a final regulation of Germany's reparation debts threaten to break down there is a rush of capital out of the country, partly withdrawals

[1]) For a lucid exposition of the theory of this process of readjustment see Palyi's report to the Pyrmont Conference, Das Reparationsproblem pp. 365—393; also an article by the same author in the Archiv für Sozialwissenschaft und Sozialpolitik of Oct. 1926 entitled "Der Zahlungsbilanzausgleich bei einseitiger Wertübertragungen".

[2]) Prof. H. von Beckerath has given a concise summary of this last qualification of the old transfer theory "Die ganze Transfertheorie (richtiger Theorie des Transferdruckes) mit der gearbeitet wird ist eine Diskonttheorie die an Hand der Erfahrungen einer wesentlich kommerziellen Welt entwickelt worden ist, einer Welt die auch industriell aus Firmen mit einer nahezu kommerziellen Beweglichkeit, mit überwiegenden Umlaufenden Betriebskapital, mit leichtesten Umstellungsmöglichkeiten bestand. Das ist aber nicht mehr vorhanden". (Das Reparationsproblem p. 220). Especially in postwar Germany with its highly organized labour on the one hand and the strength of industrial monopolies on the other hand, the flexibility of economic relationships necessary for an efficient working of the transfer-mechanism was notably absent.

[3]) For a concise but thorough diary of the reparations farce see Ernst Meyer's Zeittafel der deutschen Reparation 1918—1930, 1930.

from abroad, partly flight of domestic capital [1]). In one month the Reichsbank loses R.M. 728,000,000 or 27% of its total gold and foreign exchange reserves. Although interest rates rise rapidly [2]) they prove to be totally incapable of reversing the direction of the capital flow. Only when in Paris agreement has been reached does capital begin to flow back again [3]) . Bij the middle of 1930 the Reichsbank's loss of gold and foreign exchange had been more than made up while interest rates have fallen to the lowest level since the war [4]). But underneath the apparent quiet on the nation's financial markets which the relatively low level of interest rates would seem to indicate there is an increasing amount of political turbulence. A few months later, on Sept. 14th to be exact, the surprising outcome of the Reichstag elections with its heavy shift towards the extreme right, for the first time clearly shows the real portent of Germany's political development. Again mistrust invades the minds of German as well as foreign investors, again the Reichsbank loses about R.M. 700,000,000, again interest rates rise widening the differential with foreign rates and again the growing differential is entirely incapable of reversing the gold movement [5]). As Wirtschaftskurve expresses it, the flow of capital went "uphill" [6]). Even when in March of 1931 the internal political situation temporarily assumes a less disquieting aspect, the reflux of funds remains very small; at last the real nature of Germany's overindebtedness is beginning to be understood and capital become timid stands aside ready to flee at the first sign of danger.

As it turned out the wait was not to be a long one. In ever more rapid succession the waves of unrest, financial, economic, and political, beat against foreign condidence. In the end of March

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[1]) "Zu diesen inländischen Abziehungen gesellten sich Kündigungen durch ausländische Geldgeber. Aber deren Bedeutung stand hinter der Markflucht des heimischen Publikums erheblich zurück" Wirtschaftskurve, June 1929, p. 135.

[2]) From January to June 1929 money for one month in Berlin rises from 7.48% to 9.90%; the private discount rate from 5.67% to 7.50% and the rate for credits on current account from 9.50% to 11.50%. ibidem p. 216.

[3]) Ibidem, p. 100.

[4]) In August 1930 the average private discount rate in Berlin was 3.24%.

[5]) In Oct. 1930 the private discount rate in Berlin had risen to 5% against 2,15% in London, 2.00% in Paris and 1.95% in New York.

[6]) The replenishment of the Reichsbank's reserves in Nov. 1930 when its gold and foreign exchange holdings rose by some R.M. 320,000,000 is merely the result of the Reichs "Ueberbrückungskredit" floated abroad, and not of a general reflux of foreign funds.

the plan for a German-Austrian customs-union is sprung upon a politically all too sensitive world [1]). On the eight of May the Reich budget deficit reaches R.M. 1,250,000,000; on the 13th the disastrous situation of the Austrian Kredit Anstalt becomes known; the next day Briand is defeated for the presidency of the French republic. Already the demand upon the German banks from foreign depositors is assuming considerable proportions but up till the end of May foreign withdrawals are apparently met out of the banks' own foreign exchange holdings [2]) as the Reichsbank's reserves remain practically unchanged. Then, in the first days of June the real run on Germany finally begins and feeding upon itself as well as on the fertile crop of new economic and political maladventures [3]) it quickly breaks into a trot, from a trot into a canter, from a canter into a gallop. The race is on.

Within a little more than two weeks, from the 6th to the 23rd of July, the Reichsbank loses 37% of its gold and foreign exchange reserves. There follows a short breathing spell as the American proposal for a one year moratorium of all reparation payments inspires the world with fresh hope. But the drawn-out opposition which the plan encounters in France rapidly dispels the new-born confidence which alone could save the situation. Soon withdrawals from abroad and the flight of domestic capital recommence eating into the rapidly slinking gold reserves only temporarily strengthened by the $ 100,000,000 credit obtained from foreign central banks on the 25th of July. A frantic last minute search for help in Europe's financial centers fails to secure results nor are the internal measures to save the situation more successful. Rather than to risk the total exhaustion of its reserves and the danger of renewed inflation the government decides to give up the struggle of attempting to maintain full convertibility and on July 13th orders all banks and exchanges closed for two days while restricting the trade in foreign exchange to the Reichs-

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[1]) Wirtschaftskurve calls the plan and the manner in which it was made public "eine der wichtigsten Wurzeln aller nun folgenden politischen und wirtschaftlichen Störungen" July 1931, p. 116.

[2]) Wirtschaftsdienst estimates the directly available part of the banks' foreign assets in May 1931 at from 1,5 to 2 billion R.M.; June 19th 1931 p. 1055.

[3]) To mention a few; June 2nd failure of Auspitz, Lieben & Co, a large Viennese bank; June 6th publication of adverse rumours concerning the position of the Danat bank; June 10th the Nordwolle, a great industrial concern, stops work as the result of misuse of funds; June 19th General von Seckt demands arms equality for Germany.

bank. With the promulgation of the latter measure Germany's post-war gold standard experiment has come to a close [1].

* * *

Conclusions

Unlike the earlier investigation of the gold accumulation in France, the analysis of the factors which vitiated the successful operation of the gold flow mechanism in Germany was not in need of a great deal of statistical research to determine where the sources of the trouble lay. Most of them are very much on the surface. The effect of reparations in greatly increasing Germany's foreign debt, the tremendous growth of the foreign debt of a short term nature, the increasing volatility of long term foreign investments, the inability of interest rates to stem capital drains, the influence of political considerations upon the direction of capital movements, they are all familiar phenomena. What is less generally realized is that except for the effect of reparations which, of course, were an alien element in the economic body, these phenomena which have wrecked the goldflow mechanism and the international monetary solidarity which is dependent upon it, are by no means "abnormal disturbances" that need not be expected to occur again but are likely to stay with us and to work their disastrous effects again and again unless effective remedies are devised For if we try to determine what has made these powerful disturbances possible we find that in practically all cases underlying influences have been at work which show no likelihood of disappearing.

Recall again what we found to be the explanations of the post war growth of Germany's foreign short term debt. There was first the disquieting effect of the uncertainty concerning repa-

[1]) Curiously enough, the German as well as the foreign press seem to have clung to the fiction that the mark continued to be a gold standard currency despite the fact that the primary requirement of such a currency, full convertibility,was no longer met. Factually the difference between a system of foreign exchange control, Devisenzwangswirtschaft, and a complete abandonment of the gold standard is merely one of degree. In the former case the Bank of Issue decides more or less arbitrarily which applications for means of foreign payment it shall honour. In the latter case it is decided once and for all not to meet any such demands. Again, in the former case the effect of foreign demands upon the volume of currency and credit through the supply of gold and foreign exchange is partially destroyed as the Bank may refuse to honour such demands while in the latter this effect and the connection between gold and credit through which it operates is completely eliminated.

rations. True, that at least has been eliminated but in its place has come the knowledge that Germany is heavily overindebted, a knowledge which is not going to promote long term lending in the future. Second, the fear of renewed currency depreciation, another element which can hardly be said to have lost in significance after the experience of the last few years. Third, the general feeling of political instability and the less said about that the better. No one in his right mind could believe that in the future this element will disappear; on the contrary it is likely to prove a stronger motive for the continuation of short term lending than any of the other factors mentioned. Fourth, the liquidity complex which will remain with us as long as business cycles remain. Fifth, the spread of the gold exchange standard the future of which is too uncertain to allow of prediction. Finally, the huge increase of productive efficiency and the corresponding growth of capital which a reasonable faith in the future compels us to consider a permanent element.

Again, the second obstacle to the realization of the flux and reflux theory, the increasing volatility of long term foreign investment, appears to be the outcome of a steady development of financing technique and for that reason cannot be classed as an accidental and temporary difficulty. Unless there is a complete reversal of the age old trend towards greater facility and range of exchange, — and although at present that possibility is not as remote as one might wish it to be it may be discounted here since to any but the most confirmed Spenglerians it must be unthinkable that such an interruption of economic development could be more than a temporary retrogression — it is to be expected, therefore, that the fluidity of international long term capital brought about by the growth of foreign participation on domestic security exchanges will remain a permanent feature of international finance.

We come next to the third phenomenon mentioned as one of the causes of the breakdown of the gold flow mechanism, the inability of interest rates to act as a regulator of capital movements in times of depression. Evidently this is not an independent cause of trouble but it is itself conditioned by some of the other causes we have enumerated, especially the growth of short term credit. Thus it is the knowledge or the suspicion of the individual

foreign creditors that the total callable liabilities of the debtor market far exceed its directly available assets [1]) which in postwar times has rendered foreign capital greatly more sensitive to scares. The disproportionate volume of foreign short term liabilities pressing upon the market cannot help but increase the risk attached to leaving them there and eo ipso diminish the power of interest rates to direct their movements when, as happens in the downward phase of the business cycle, the quantity and the geographical orientation of the supply of capital comes to be governed by the absence of risk rather than by the height of return [2]). As long as the morale of economic life, therefore, continues subject to the periodical ups and downs which have characterized it during the last hundred years, the temporary uneffectiveness of interest rates as regulators of capital flows must be reckoned with.

There remains the disturbing effect upon gold and capital movements exercised by the influence of political considerations in directing the flow of capital into ineconomic channels. It needs no prolonged demonstration that in the present state of Europe there is not the slightest warrant to believe that this unbalancing factor will lose in strength. On the contrary, it is not at all unlikely that until the time when an end is made to the ever more unbearable anarchy of absolute national sovereignty the strength of this last disorganizing force will become progressively greater.

* * *

The findings of this chapter, then, are anything but favourable to the faith in the continued workability of the gold flow mechanism. Not only has the analysis of the German case shown still another example of its complete failure in this particular instance, but also it has uncovered a formidable array of forces of an apparently permanent nature which must render the prospects for better results in the future wellnigh hopeless.

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[1]) Compare chapter IV.

[2]) It is true that the effect of increasing risk felt by creditors may be offset by a higher price offered by debtors, but as has been pointed out elsewhere, the sharp rise of interest rates thus occasioned will bring them up to the confidence limit where the height of return loses all its influence.

APPENDIX

The author is fully conscious that to the trained economist it may appear as if the way in which he has used the term capital in the preceding chapter has made him guilty of adding to the confusion of terminology existing on this point. While admitting the validity of this reproach we would plead nolle contendere on the ground that in the interest of conciseness some simplification with the loss of precision which it always entails was indispensable. Moreover we do not believe that the defects of terminology can do much to impair the validity of our conclusions. To make this clear let us first define a little more accurately the various meanings of the term capital as used in this chapter.

In its opening part we spoke of the great shortage of capital resulting from the war and the inflation. It is clear that in so doing we had in mind the orthodox Böhm Bawerckian conception of capital as the subsistence fund, physical goods saved out of current production and available for productive consumption to put it as briefly as possible. A little later the very sharp decline of bank deposits was referred to as illustrating the extent of the capital shortage. If bank deposits are here taken to be savings deposits it is clear that so far there is no inconsistency in our thinking about capital: considering capital that what is saved out of current production it follows logically that a decline of the paper representatives of such savings, which is all this class of bank deposits is, may justifiably be said to illustrate the diminution of the supply of capital.

Going on to the low reserve position of the German banks at the outset of the resonstruction period we then said that this shortage of currency severely limited the supply of money capital. Obviously what is called capital in this instance is something very different from the subsistence fund: it is not a conglomerate of physical goods saved out of current production but merely the power to buy goods and labour, a power which the banks create in favour of borrowers in the act of extending credit. There is nothing new in this usage of the term capital as any one acquainted with German economic thought will know. But it is perhaps less widely realised, especially in Anglo-Saxon literature, that this view of the nature of capital has brought about a profound

schism in the theory of money, credit, and capital. Its far reaching importance may be realised by contemplating the implications to the theory of interest rates. While the orthodox conception of capital as a subsistence fund leads to the conclusion that interest rates are a function of supply and demand, the view that capital is created out of nothing by the banks apparently necessitates the recognition that in a closed economy the rate of interest may fall to zero, or rather to that fraction over zero which just compensates the bank for the cost of doing business, clerical expense, overhead etc. Most writers holding the latter view of capital have attempted to reconcile its startling conclusions in regard to short term interest rates with the orthodox and factually better supported theories concerning the determination of long term interest rates in the unescapable conviction that short term capital and long term capital are essentially identical and that therefore its price must be governed by the same factors. But as far as the author has been able to ascertain no thoroughly satisfactory solution has yet been found.

Unfortunately the limited scope of this study will not allow us to treat this fascinating problem in more detail or attempt to define our own attitude towards it. That must wait till a later time.

Before coming to the decision whether the acceptance of one or the other of these two views of capital necessitates a radical revision of our conclusion regarding the nature of Germany's capital imports, there are two other connections in which the term capital has been used that stand in need of some elucidation. First, the statement that the inflow of gold and foreign exchange into the Central Bank added to the supply of money capital in Germany. It requires no great deal of perspicacity to see that this usage of the capital concept derives directly from the view that capital is the power to buy goods and labour created by the banks in the act of extending productive credit. Instead of calling the power itself capital we apply that term to the commodity, bank reserves, which is the soil on which the power grows. Secondly it was said that the debit balance on current account of the balance of payments was paid for by capital imports. Here the term capital has still another meaning. It refers neither to physical goods making part of the subsistence fund nor to bank made purchasing power nor to reserve material. All the term capital import as

used in this connection means is extension of credit from abroad. It means that the exchange necessary to discharge that part of current obligations abroad which is not offset by current income abroad has been obtained in the form of foreign loans. Capital in this sense does not refer to an economic category, a factor of production. In fact, the word has no meaning by itself but only in conjunction with import, and then it denotes not a physical transfer such as goods import but merely a process of making foreign payment.

Summarising the preceding precision we may say, then, that we have used the term capital to cover two concepts with their respective derivatives. The first is the orthodox one of the subsistence fund and its monetary representative savings. The second is the modern one of bankmade purchasing power with its antecedent, reserve material, currency and gold. Now consider whether the apparent inconsistency between these two meanings of the term capital invalidates our conclusion regarding the nature, the causes, and the effects of Germany's capital imports. We saw that the statement that Germany in the reconstruction period imported approximately R.M. 15,000,000,000 of foreign capital tells us nothing beyond the obvious fact that foreigners have put an equivalent amount of foreign exchange at her disposition with which to discharge her current obligations arising out of goods import, interest due, reparations etc. We saw also that the only way in which foreigners were able to do so was by opening credits in favour of Germany, by extending loans. From this increase in the supply of credit we concluded that interest rates should have declined. But the factual record shows little trace of any such decline as might be expected to follow the huge increase of supplies from abroad. This failure of interest rates to fall more rapidly was then explained by pointing to the fact that the capital import, the extension of foreign loans, dit not lead to a corresponding increase of the supply of what we called real capital in the Böhm Bawerckian sense but to a very large extent merely absolved Germany of the necessity of exporting real capital in order to pay reparations. Thus, proceeding from the orthodox conception of capital and the nature of interest rate determination which follows from it, we were able to answer the question why the enormous supply of funds from abroad has failed to produce a

more pronounced decline in the price of capital in the simple and irrefutable statement that the German capital imports were for the most part not real capital imports at all.

But it is clear that to the adherents of the more modern conception of capital this explanation will appear worse than useless. To them it is not the supply of goods destined for productive purposes which governs the rate of interest, but the extension of credit by the banks or in ultimate instance the supply of reserve material which determines how far the banks can go in extending credit. Can the peculiar nature of the German capital imports, their utilization in paying reparations, also explain the failure of interest rates to react if we proceed from this radically different view of the nature of capital? We think it can. For just as the capital imports were only for a small part imports of real capital in the orthodox sense, so they were only for a small part imports of capital in the modern sense. As we have seen, about two thirds of the total reflux of R.M. 15,000,000,000 was used to pay reparations and interest charges. Not only, therefore, did this part of the capital influx fail to add anything to the supply of goods capital but also it failed in just the same way to add anything to the supply of bank made purchasing power or to the supply of reserve material which is its determinant. To see that this is so one need only go back to the description in the text of the process by which this part of the foreign loans was used to pay reparations. The foreign currencies, the credits in foreign banks to which the loans gave rise were turned over to the Agent General in exchange for marks which he had collected on the internal market so that bank reserves remained completely unaffected. From the point of view of the modern capital concept, therefore, it was only that part of the capital import which showed itself in rising gold and foreign exchange reserves at the Central Bank which constituted a real addition to the supply of capital in Germany. We see, then, that our explanation of the failure of interest rates to show a more pronounced response to the huge capital imports as being due to the fact that only a minor part of them were real capital imports remains valid whether one holds with the older economists that real capital is a stock of commodities saved out of current production or whether one deems it to be bank made purchasing power or the reserve material which makes the creation of such purchasing power possible.

CHAPTER VI

ENGLAND

> Es ist im Grunde eine Einstellung des 18. Jahrhunderts anzunehmen dass gegen jedes Leiden ein Kräutlein gewachsen und jedes Problem lösbar ist.
>
> Prof. LANDMANN

When on the 21st of September 1931 the Bank of England suspended gold payments the prestige of the gold standard received the heaviest blow it ever suffered. That England which had made out of the crude instrument of early nineteenth century days the intricate finely controlled mechanism of post war times, that the country which had been its birth place, its nursery, and its finishing school should at last have decided to cast out this prodigal son which it had welcomed back with so much enthusiasm six years earlier, was in the eyes of many conclusive proof that the gold standard was definitely played out. For unlike the later suspension of gold payments in America which was voluntary and unnecessary, a psychological trump to force business recovery, the ultimate abandonment of the gold standard in England was the direct result of its failure to secure the even flux and reflux without which gold payments cannot permanently be maintained. Again then the question rises what has been the cause of this derailment.

* * *

According to one school of thought the suspension of gold payments was in a large measure the direct result of the overvaluation [1]) of sterling consequent upon the reestablishment of

[1]) Simple as this problem of overvaluation really is, it has been bandied about so much in the gold standard controversy carried on in the Press by Mr. Keynes and his opponents that the essential outlines of the question may well have become blurred in a jargon of technical terms meaningless to those not especially trained in monetary

pre-war gold parity. Briefly this theory runs as follows. When Britain reanchored the pound to gold its external purchasing power was some ten percent higher than its internal purchasing power. Consequently there arose a stimulus to imports and a check to exports. In itself this situation need not necessarily have led to a deterioration of the balance of payments, as under normal conditions an initial gold outflow or even a mere restriction of credit calculated to forestall a gold outflow by anticipating its effects, would have lowered English prices thereby cancelling the discrepancy between internal and external prices. But, the theory continues, this adjustment was prevented from taking place partly by the rigidity of British costs, partly by the powerful opposition against a deflationary credit policy. Thus the overvaluation of sterling was allowed to persist with the result that the balance of payments grew more and more unfavourable until finally in 1931 the weakness of England's international position became so evident that fear-inspired foreign withdrawals gave England the last push which shoved her off the golden incline [1]). Note that according to this view the confidence crisis of the summer

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theory and practice. For the benefit to the latter the problem is here briefly restated.

Consider England and America before the stabilization. In America all things have their prices expressed in dollars, in England in pounds. If an Englishman wants to buy in America he must first obtain dollars as sterling is not accepted in payment outside of England. It is clear, then, that if prices in America remain unchanged the price in England of American goods is determined by the English price of dollars. Consequently a rise of sterling exchange which is the same as a fall in the sterling price of dollars, automatically lowers the price to Englishmen of American goods. What is changed by the rise of the exchange is not the level of prices in America nor the level of prices in England but the sterling price which Englishmen have to pay to obtain the same amount of American goods.

It is generally agreed that this is what happened when in April 1925 England went back to gold at $ 4.86 to the pound. Some time before the final stabilization a combination of various influences such as speculative sales of dollars and the diminution in the demand caused by the embargo on foreign loans, began to lower the sterling price of dollars while commodity prices in America and England remained for the most part unchanged. When in April the price of dollars is finally and definitely fixed at the old pre-war rate as compared with $ 4,69 in December 1924 and $ 4.32 in June 1924, therefore, this meant that dollars had become about ten percent cheaper than a year ago. And since their buying power in the American market had not changed nor that of the pound in the English market, Englishmen could command a greater quantity of goods by buying cheap dollars and with those dollars buying American goods, than by spending their pounds in the purchase of home made goods. The *external* purchasing power of the £ had risen through the fall in the price of the dollar while the internal purchasing power had remained the same. This discrepancy between the internal and the external purchasing power of the currency is what is meant by the overvaluation of sterling.

[1]) There is reason to believe that the popularity of this theory which is largely due to its appealing mechanistic and simplistic conception of contemporary history,

of 1931 merely achieved the work begun by Mr. Churchill six years earlier, that it merely accelerated the final stages of a process which had been going on ever since 1925 and which without this merciful intervention would have dragged itself on to its inevitable end just the same.

Like most attractive and popular theories the overvaluation theory contains some elements of truth intermixed with a considerable amount of loose reasoning and factual error. The first debatable point involved is whether sterling was really overvalued in 1925. Here we immediately stumble upon a very controversial issue and a rather barren one. For the question of overvaluation can evidently only be decided by empirical methods, the measurement of changes in English and foreign price levels. It is familiar knowledge, however, that at the present stage of statistical technique the comparison of international price and income levels cannot by any stretch of the examination lay claim to exactness.For one thing, the methods of measurement employed by statisticians of different countries are widely different. Secondly, there is the difficulty if not the impossibility of finding sets of prices in each country which can be considered truly representative of changes in the relative purchasing power of the respective currencies. Thus Professor Keynes rightly attacked the conclusions of the Committee on the Currency and the Bank of England Note Issue as misrepresenting the true relation of English and American prices, for it is undeniable that a comparison of wholesale indices most of which are made up of prices of international raw materials, cannot pretend to give a correct picture of the relationship between a currency's internal and external purchasing power. But if wholesale prices are not to be relied on one must fall back upon retail price or cost of living indices in which the factors of weighting and selection are notably arbitrary. No matter where one turns, therefore, the measurement of purchasing power remains and probably must remain more or less a matter of guesswork so that any attempts to "prove" overvaluation of a currency by a comparison of intra-national price indices is to be taken with a large dose of salt.

contributed materially towards the foreign withdrawals which were the direct cause of the suspension of gold payments. It would not be the first time that ideology had made material history instead of vice versa, sacrilegious as this suggestion may sound to the true Marxian.

Nowhere is the relativity of such "proofs" better illustrated than in Professor Gregory's The First Year of the Gold Standard (1926) where it is shown that by using another price index and one equally if not more representative than the one employed by Prof. Keynes, totally different results can be secured . The example is so excellent a warning against the inadmissibility of attempting to turn economics into an exact science that a part of Professor Gregory's figures are reproduced below in slightly alterated form.

Ratio of the External Purchasing Power to the Internal Purchasing Power of Sterling

	Gregory's figures	Keynes' figures	Rate of Exchange
June 1924	.88	.98	$4.32
June 1925	.99	1.09	$4.86

The table shows that whereas Keynes' figures lead to the conclusion that the reestablishment of pre-war parity has caused an *over*valuation of close to ten percent, Gregory's equally reliable figures indicate that instead of creating an overvalued pound the rise in the exchange has merely brought a previously *under*valued pound back to equilibrium. Who is right? No one will ever know. Fortunately it matters little for our purpose. For whether the English export industry lost a competitive advantage previously enjoyed due to undervaluation of the currency in 1924, or whether there was imposed upon it a handicap due to overvaluation in 1925, is of no bearing upon the essential fact that the rise of the exchange automatically lowered foreign prices to Englishmen and thereby exercised an unfavourable effect upon England's balance of trade. Once this undeniable connection between the reestablishment of gold parity and the balance of trade has been grasped the question of undervaluation or restoration of equilibrium loses much of its significance.

It is a far cry, however, from stating this truism to the demonstration that the adverse influence of stabilization upon the balance of trade lies at the bottom of the collapse of 1931. The most

superficial analysis of the English balance of payments shows this proposition to be untenable. Consider the following figures [1]).

	Balance of Payments of the United Kingdom. £ 1,000,000				
	1927	1928	1929	1930	1931
Trade balance	—387	—353	—381	—387	—411
Interest income (net)	+250	+250	+250	+220	+165
Shipping income (net)	+140	+130	+130	+105	+ 80
Other services (net)	+ 79	+ 95	+104	+ 91	+ 56
Net current balance	+ 82	+122	+103	+ 29	—110
Long term capital export	—139	—143	— 94	—109	— 46

The year to year movements of the various factors which go to make up the English balance of payments and through it direct the movement of the exchanges indicate that the source of sterling's weakness is to be found not in a rapid deterioration of the balance of trade but in the falling off in the country's interest and service income and the continuous overlending of the period [2]). Up to the end of 1930 the trade balance remains remarkably steady. In the same year, however, the balance on current account declines by £ 74,000,000 but only 8% of this increase is due to the growth of the import deficit. Again in the fateful year 1931 when the net credit balance of £ 29,000,000 of 1930 changes into a net debit balance of £ 110,000,000, 83% of this conversion of a surplus into a deficit is due to declines in interest and service income while the growth of the import deficit accounts for no more than 17%. And when finally in 1931 the trade deficit does exceed the offsetting interest and service receipts this is due practically entirely to a decline of these latter items and only to a very small extent to a growth of the import deficit. Finally, there can be little doubt that the increasing import excess of 1931 was the result of specific depression influences rather than of the alleged overvaluation of sterling in 1925. It is clear, therefore, that the rise of the exchange in 1925 cannot be considered a major factor in the breakdown of gold payments six years later. For

[1]) Board of Trade figures cited by the Economist of February 20th 1932; Midland Bank figures quoted in H. F. Fraser's Great Britainand the gold standard, 1933; p.108.

[2]) "The weakness of sterling is attributable solely to overlending by this country. It is a phenomenon of capital movements and is quite dissociated from commodity trade." Midland Bank Review Aug. 1929 p. 4.

since this rise could only have influenced the balance of payments through its effect upon the trade balance and since it has been shown that the development of the trade balance has been but a minor factor in the deterioration of the balance of payments it follows logically that the connection between the collapse of gold payments and the stabilization of 1925 is a very distant one [1]).

* * *

There is one point in the reasoning of the "overvaluationist" theory, however, which deserves of notice, viz. the influence of cost rigidity upon the functioning of the gold flow mechanism. Of course, our conclusion that the trade balance played only a very minor part in bringing about the departure from gold rules out the possibility of explaining this departure by the rigidity of costs since cost rigidity like overvaluation can only affect the balance of payments through the balance of trade. In fact, the overvaluation theory and the rigidity theory are inextricably interwoven. They both attempt to explain the weakening of sterling by the failure of British costs to adjust themselves to world prices [2]). The only difference is that the overvaluationist school holds that it was the rise in the exchange of 1925 which

[1]) It is true that the decline in shipping income which accounts for a part of the decrease of the current balance may have been partly due to the overvaluation of sterling. It needs no demonstration, however, that this is hardly enough to establish overvaluation as one of the major causes of the abandonment of gold payments.

[2]) We speak purposely of the failure of *costs* to adjust themselves to world *prices*, the reason being that British prices did indeed adjust themselves to the world level as is shown in the table below. It is clear, however, that as far as the trade balance is concerned a decline of prices unaccompanied by a decline in costs has much the same effect as a failure of *prices* to adjust themselves to the world level. In the first case production becomes unprofitable which will lead to smaller output and smaller exports; in the second case high prices in a falling world market will curtail sales directly.

	Board of Trade index of wholesale prices 1924—100	Bureau of Labor Statistics index of U.S. wholesale prices 1924—100	Prof. Bowley's index of money wages 1924—100
1925 . . .	95.7	105	101.4
1926 . . .	89.1	102	101.3
1927 . . .	85.2	97	101.5
1928 . . .	84.4	100	100.6
1929 . . .	82.1	98	100.1
1930 . . .	71.9	88	99.2

caused the discrepancy in cost levels while according to the rigidity theory a variety of influences both of a monetary and non-monetary character, such as industrial inefficiency, account for the high level of British costs. Differing on the origin of the maladjustment between England and the rest of the world they are unanimous as to the nature of the cause underlying its continuance: rigidity of wage costs [1]). Our conviction that in the case of England rigidity of costs has been but a minor factor in the deterioration of the balance of payments need not deter us from a clear appreciation of the potential importance of this rigidity in vitiating the operation of the flux and reflux mechanism. It is self evident that the two are incompatible since inflexible prices mean the destruction of the long term corrective of excessive gold movements. If social considerations demand the permanent incorporation in our economy of a comparatively rigid wage scale, then the maintenance of the international gold standard obviously becomes fraught with the greatest difficulties as that institution relies for its efficiency upon a continuous adaptation of internal costs to world prices. Hence the attempt of a country with a rigid wage structure to maintain monetary solidarity with an outside world in which every nation is free to play its own monetary game is bound to end in futility and disaster.

* * *

Meanwhile, having concluded that neither the return to pre-

[1]) This trait d'union between the two explanations of the cause of the deterioration of the English balance of payments has blinded a good many observers to their essential differences, which has resulted in a considerable confusion of thought. Thus the Midland Bank Bulletin of Nov. 1931 speaks in the same breath of the overvaluation of sterling caused by the return to pre-war parity, and that resulting from the failure of British prices to follow world prices in the slump of 1929. Evidently this is not conductive to clear thinking as the overvaluation of 1925 was of a radically different nature from that alleged to have arisen in the world price slump. In the first case it was the deliberate raising of the exchange value of the currency in a time when relative price levels remained unchanged which brought about overvaluation. In the second case it was the failure of British costs to follow world prices in a time when the exchange value of sterling remained the same which gave rise to overvaluation. In the first case it is arbitrary government action, in the second case the operation of economic and social forces which caused trouble. To confuse the two and to say that the stabilisation of 1925 became more onerous to British industry as world prices fell is only permissible in the sense that adhesion to an international gold standard is *always* onerous in a time of falling prices abroad regardless of the levél of stabilization. For if sterling had been stabilized 10% lower the fall in world prices of 1929—1931 would have been a burden to British industry just the same.

war parity nor the rigidity of costs have played a very significant role in the collapse of 1931, let us try to discover what other influences may be found to have impaired England's international position before the final breakdown. In this connection we have already mentioned the tendency to overlending evident in the balance of payments ever since the resumption of gold payments. Just like cost rigidity the continued overinvestment abroad taken in conjunction with the simultaneous growth of England's external short term debt has loomed large in the popular explanations of the causes of the breakdown. To gauge its true significance it will be necessary to review briefly the change in England's foreign investment position since 1914.

Before the war England enjoyed the privilege of being what was commonly called the world's banker. In 1913 her net balance on current account was calculated by the Board of Trade at £ 181,000,000 or about £ 257,000,000 at 1927 values [1]). These surplusses were regularly invested abroad, partly in long term loans partly in short term foreign trade financing, leaving London a net creditor on short as well as on long term account [2]). Fourteen years later when with the stabilization of the franc the financial reconstruction of the world had been completed, England's international position shows the following changes. Her balance on current account has shrunk to £ 82,000,000 and from a net creditor on short term account she has become a net debtor to the extent of £ 279,000,000 [3]). The following figures give the answer to the question how this reversal from short term creditor to short term debtor has come about. (See table page 135).

We see here that with the exception of the years 1922 and 1929 England's new long term investment abroad has constantly exceeded her balance available for capital export. Obviously the gap so created must have been filled somehow since no country can invest abroad more than the total of her current balance and the credits which it in turn has obtained abroad. The conclusion is that England has maintained her position as the world's banker

[1]) J. M. Keynes; Essays in Persuasion p. 254.

[2]) "London had sight claims on the rest of the world much greater than those of the world on her" Macmillan Report, p.125.

[3]) In all probability this figure which is taken from the Macmillan Report errs on the lower side as it does not include sterling bills held by foreign banks located abroad. Cf. F. Benham, British Monetary Policy, 1932, p. 5; also Gregory; The gold standard and its future 1932, p. 53.

	Surplus on current account of the balance of payments.	New overseas issues	Excess of foreign investment over current surplus.
	£ 1,000,000		
1922 . . .	154	135	—19
1923 . . .	102	136	34
1924 . . .	86	134	48
1922—24 .	342	405	63
1925 . . .	54	88	34
1926 . . .	—26	112	138
1927 . . .	79	139	60
1928 . . .	117	143	26
1929 . . .	118	94	—24
1930 . . .	22	109	87
1925—30 .	364	685	321 [1]

on long term account by becoming the world's debtor on short term account [2]. This view is fully confirmed by the findings of

[1]) The figures of surplus on current account here shown differ from those given on page 131 due to the inclusion of gold movements in the trade balance. Sources are the Board of Trade Journal of Jan. 29th 1925 for the years 1922—23, the Macmillan Report p. 305 for 1924—25 and the Economist of Febr. 20th 1932 for the remaining years. The figures of long term foreign issues sold in London are obtained from the forementioned publication of the Board of Trade and from the Macmillan Report.

[2]) The incontrovertible fact that *England as a whole* has lent long and borrowed short has often been made the basis for an attack upon British banks which are accused of having used their short term foreign credits as long term foreign loans. To anybody at all conversant with English banking the groundless nature of this charge will be self-evident. For unlike continental banks the London deposit banks take practically no part in emission business whether domestic or foreign. In fact their lack of interest in industrial long term financing has often been a source of complaint. For this reason alone it is absurd to charge the banks with relending their foreign deposits on long term to foreign borrowers. Actually "what was lent to Germany by English joint stock banks was in the main lent in the form of three months acceptance credits or deposits at short notice of one to three months" (The Bankers Magazine Nov. 1931 p. 801). It is quite clear moreover that the process of lending long while borrowing short was the result of two entirely separate operations carried out by separate institutions. The emission houses representing the investing public negotiated the long term loans with foreign borrowers; the joint stock banks received foreign deposits. The two only meet when the emission houses go to the banks to buy foreign currencies with which to remit the proceeds of the loans. (Only inasmuch as the discount companies which do indeed take up foreign short term credits and deposits were the issuers of the foreign loan is there any ground for the charge of lack of prudence). It should be obvious, however, that in selling foreign exchange, there is absolutely no question of any long term lending by the bank. Cf. also the Banker of Oct. 31st 1931 p. 59—62.

the Macmillan Report according to which London which in 1913 was a net creditor on short term had become a net debtor to the tune of about £ 300,000,000 in 1928 [1]).

The question now rises whether this persistence of an excess of long term foreign investment financed by short borrowing clashes with the theorem of automatic adjustment of capital export to the surplus on the balance of payments, and if so, how it can be brought in connection with the collapse of the gold flow mechanism of which that theorem is an essential part. The problem has already been dealt with in some detail when discussing Switzerland's international position. There too we found regular foreign investments far in excess of the country's own net current balance financed by capital imports from other countries. We concluded at the time that this type of capital transit was in no way irreconcilable with theory. But in the precent case the situation seems to be a good deal different. Not so much because the contrast short term import — long term export is far more pronounced in England than in Switzerland as because of the fact that whereas Switzerland exported capital in excess of her own balance *as the result* of the heavy inflow of foreign funds, England's overinvestment on the other hand appears to have been the *cause* of the inflow of short term funds. Of course it is impossible to "prove" a causal sequence of this type. There are sufficient indications, however, to believe that the view stated above is essentially correct. The most important one is the persistent weakness of sterling after the stabilization [2]). Had the overinvestment [3]) been no more than the result of a previous accumulation of foreign funds one would have expected to see sterling strong most of the time. Actually we find that from the reestablishment of the gold standard in May 1925 to the end of 1930 sterling ruled below dollar parity for 52 out of the 67 months included [4]). The nature and tradition

[1]) The Midland Bank writes in its monthly review of Jan. 1927 that "a far more feasible explanation of the apparent conflict between huge overseas issues and little or no surplus on current account is the one oft quoted that while lending at long term we have been borrowing short".

[2]) It is interesting to note the remarkable steadiness of the volume of long term foreign issues placed on the London market during the years 1922—24, a period when the current balance showed pronounced fluctuations. It will not be far fetched to consider this as an indication of the independent nature of the volume of England's foreign investment.

[3]) The term is always used relative to the current balance.

[4]) Cf. Benham loc. cit. p. 40.

of British overseas investment also point to the conclusion that the overlending abroad was the independent factor and the inflow of short term funds its consequence. The deeply rooted tradition of investing in foreign securities, the capacity for issue business of the highly organized commission houses [1]), the lack of interest in home enterprise, they all worked to maintain a steady flow of capital into foreign issues regardless of the state of the money market or the size of the current surplus on the balance of payments. There is good reason to believe, therefore, that England's overinvestment abroad was of a radically different nature from that of Switzerland, that it was this overinvestment which caused the inflow of short term funds from abroad and not the other way around [2]).

* * *

The foregoing somewhat longwinded reformulation of the "overlending" theory was necessary to bring the question out of the haze of vague generalization into the clear light of critical analysis in which alone its true bearing upon the collapse of 1931 can be seen. It is clear, then, that England's continued overlending perpetuated a maladjustment which under a properly functioning gold standard regime should automatically have corrected itself. For theory teaches us that under such a regime the rise of interest rates necessary to attract the short term funds without which long term lending abroad could not continue would itself have eliminated the disequilibrium between foreign investment and the current surplus, partly by exercising a deflationary pressure upon prices and increasing the current surplus, partly by redirecting a part of the country's investment from foreign

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[1]) "London houses with many years of organization and experience had a capacity for issue business far in excess of the available surplus of funds" A. P. L. Gordon Capital in Sterling 1931, p. 34.

[2]) Like all attempts to reduce infinitely complex reality to the bare structure of independent causes and dependent effects, the statement that the overinvestment *caused* the inflow of funds is an exaggeration. There were periods such as during the flight from the franc, when the inflow of short funds was determined by other influences than England's overlending abroad. But this does not alter the conclusion that throughout the period as a whole the overinvestment abroad must be considered the independent factor in the situation whose disturbing effect was sometimes offset by a simultaneous and accidental inflow of short term funds, sometimes by the attraction which it itself exercised upon liquid international balances.

markets to the home market. Yet in England this maladjustment persisted for six years after the reestablishment of the gold standard and was then only eliminated by the suspension of that institution. There is strong a presumption, therefore, that this particular maladjustment has played a significant role in preparing the ground for the forces that ultimately were to bring about the abandonment of gold payments.

According to one school of thought it is the policy [1]) of the Bank of England in the post stabilization period which was largely responsible for the failure of the natural correctives to eliminate the maladjustment between foreign lending and "foreign income". For, it is said, by keeping money rates high enough [2]) to attract short term funds from abroad the Bank rendered the continuance of overinvestment possible without any disturbance to the gold supply and the structure of prices and interest rates resting upon it, and in this way it avoided the necessity of an ultimate readjustment of foreign investment to the current balance and vice versa. On closer consideration it will be clear that this explanation does not go to the bottom of the problem, however. First, it is hardly true that the Bank's policy completely cancelled the effect of overlending upon money rates. It merely anticipated it and rendered it less direct by keeping the Bank rate at a level which would maintain an inflow of foreign balances. One would suppose, therefore, that the higher Bank rate would not only attract foreign funds but would also check the progress of British investment abroad and thereby tend to reestablish equilibrium. Actually, however, this did not occur the reason being that *England's capital export generally takes the form of long term investments and is therefore governed by the rate on long term capital which is not or only very slightly affected by changes in money rates.* The only corrective which could be expected to restore equilibrium, therefore, was a rise in London money rates which by working upon *long term* interest rates would have checked the outflow of funds. It is, to say the least, doubtful that any moderate increase

[1]) Professor Gregory aptly described this policy as intended "to maintain a level of money rates which would allow the use of foreign balances as an equilibrating medium". Addendum to the Macmillan Report, p. 225.

[2]) All through the years 1925—1927 the London Bank rate which used to be the lowest in the world ruled above those of New York and Amsterdam. In 1928 the rate is at par with these two centres but considerably higher than that of Paris whence most of the pressure on sterling originated in that year.

in money rates could have done so. For one thing it is a common place that in post war times the interreaction between short and long term money rates has become very irregular. Secondly, even if the rise of money rates had produced a corresponding rise in long term interest rates [1]), there is no reason to believe that this alone would have been sufficient to sway British investors in favour of domestic investment. Think only of the languishing condition in which English industry found itself at the time, to say nothing of the pessimistic attitude of a large share of financial opinion, the high rates of taxation, and the uncommonly strong power of the foreign investment tradition.

Still, if in the case of England the rise in money rates could not have restored equilibrium by reorienting the flow of capital, it might nevertheless be expected to have done so by its deflationary influence upon prices. If for the reasons already explained it could not adjust foreign investment to the balance of payments it could perhaps adjust the balance of payments to foreign investment. In effect, this is what was generally expected to take place. It was hoped that through an adjustment of prices the surplus on current account would rapidly expand to the point where it could again support the existing level of foreign investment [2]). Of any attempts to reduce the volume of overseas issues instead of expanding the surplus on current account there is little evidence with the exception of a short period in the summer of 1929. The mountain had to come to Mahomet. We have seen already in some detail why the adjustment failed to materialize. First and foremost, considerations of internal stability forbade the Bank of England to let the effect of overlending work itself out fully

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[1]) It is rather difficult to see how it could have done so, especially since to direct new investment to the home field it would have to effect an increase in the rates offered by *new* long term borrowers.

[2]) The discussion on this point has been greatly obscured by the indiscriminate usage of the term "balance of trade". Time and again one meets with confused complaints that sterling's weakness was due to the fact that the balance of trade "had not adjusted itself", that England "was living on her capital", that "imports should be paid for by exports" etc. The confusion arises from the failure to distinguish sharply between the *visible balance of trade* consisting solely of the difference between commodity imports and exports, and the *invisible items* such as interest, service income etc. which together with the trade balance go to make up the *balance on current account*. It is obvious that in searching for the causes of exchange weakness one must look to the net current balance and not to any one of the separate component parts such as the trade balance which taken by themselves are absolutely meaningless to the course of the exchange.

upon the domestic credit situation. To prevent the painful deflation which it would necessitate if left to itself, Bank rate was manipulated in such a way as to offset the outflow of long term funds by an inflow of short term funds. Thus the natural deflationary pressure of the overinvestment was prevented from exercising its full effect upon the balance of payments. Furthermore, the usual explanation runs, what little pressure there was felt as the result of the high Bank rate necessary to retain the foreign funds, was totally incapable of overcoming the great rigidity of the British cost level so that adjustment of the current account could not come about.

This is the well known version of the failure of the current account to overtake the volume of foreign investment. As far as it goes it is no doubt correct. The trouble is that it does not go far enough. Carried out to its logical conclusion it implies that had the policy of the Bank of England been more orthodox in letting the overinvestment abroad exercise its full deflationary effect and had the wage and cost structure been more elastic, adjustment would have been achieved and the gold flow mechanism would have "worked". We have already had occasion to note, however, that as far as the movement of capital is concerned no such automatic adjustment would have taken place. That is to say, even a thoroughly deflationary policy of the Bank of England with rapidly rising money rates need not have affected the volume of long term foreign investment since especially in England such investment is but very slightly influenced by the course of domestic money rates. Moreover, and this finally brings us to what we believe to be the fundamental reason of the persistent disequilibrium, *in modern times a really deflationary policy initiated during a period of normal business confidence is for a long time unlikely to restore equilibrium whether by checking the flow of foreign investment or by increasing the current balance because the rise in money rates which it must occasion will immediately draw in such floods of short term money as will completely cancel the intended effect upon both the movement of domestic capital and the course of prices.*

Of course, the same thing happened in earlier days. In fact, the flow of short term funds was *relied* upon to cure passing maladjustments of the balance of payments. A temporary decline in

exports due to crop failure or a sudden export of capital such as might occur with natural calamities requiring large insurance payments, would usually be corrected by an inflow of short term funds from abroad. But if the maladjustment was of a permanent nature causing a continued demand for foreign currencies, then the relief afforded by an inflow of short term funds would quickly exhaust itself, simply because the volume of international credit which could be mobilized to meet the drain was far smaller than in the post war era. And once the inflow of short term funds stopped there was of course no possible way of avoiding the fundamental adjustment from taking place. In our day and age, however, the international short loan fund is so immense and so mobile that fundamental disequilibria can be covered up by a continuous influx of short funds from abroad for an almost indefinite period of time. What is worse, it is hard to see how the Central Bank authorities of a country faced with the necessity of making such adjustments can do anything to prevent this long and dangerous delay of execution. If they lower discount rates in the hope of stopping the inflow of funds from abroad they temporarily effect exactly the opposite result from the deflation required to produce readjustment. If afterwards they raise interest rates again the short term funds previously expelled will come rushing back so that they are exactly where they were before they started. It is a dilemna from which no escape is possible. [1]).

The great danger to the functioning of the gold flow mechanism of this post war manner of perpetuating fundamental maladjustments should be obvious to all. England affords the historical example. For six years England was able to avoid the necessity of

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[1]) It follows from this that the Bank of England's practice of neutralizing gold losses by open market security purchases can hardly be held responsible for the persistence of the maladjustment between foreign investment and the surplus available for capital export. For if, as we believe to be true, any attempt of the Bank to bring about an adjustment by exercising pressure upon the money market would quickly have defeated its own purpose by inducing an increased flow of funds towards London, then it is clear that the attempt to secure the same result by letting occasional gold losses exercise their full effects upon credit supplies and money rates would necessarily have met the same fate. In view of this situation the course followed by the Bank of England of maintaining as great a degree of internal stability as possible by offsetting gold movements by open market operations, seems indeed to have been the least obnoxious way of temporizing with an insoluble difficulty. The extent to which the Bank has operated as a shock absorber between the credit structure and

adjusting foreign investment to current income abroad by means of a persistent afflux of short term funds. The result was that when the moment came that she needed an inflow of capital to correct a sudden and essentially temporary disequilibrium in the balance of payments, then not only did no foreign funds come to the rescue but also the large volume of foreign short term capital already in England suddenly became anxious and rushed to other centers thus forcing her off gold. Had she been free from the large burden of short term foreign debts accumulated in covering up the overlending of the last six years it is quite possible that the sudden deficit on current account might have been met by foreign borrowing. It has happened before. But the way things were, the country was already so heavily indebted on short term account that the appearance of the balance of payment deficit instead of being regarded as a sign for moving short term funds to the remunerative London market, was everywhere accepted as an indication that the safety of the huge volume of foreign funds already in London was seriously endangered. Thus the capital which so long had enabled London to make her regular contribution to the foreign issue market fled. It was as in a few months' time the accumulated excesses of six years' overinvestment had to be paid for. No wonder that under this strain the gold flow mechanism had to collapse. The tragedy of it is that this mechanism had been working towards its own destruction. It operated so smoothly and rapidly in attracting short term funds whenever overlending created a certain tension in the London market, that in this way it directly contributed to accumulating the large short

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the rather bumpy golden road over which it had to travel is illustrated by the following figures.

	Bank of England		total reserves of London clearing banks
	gold reserves	total earning assets	
	£ 1.000.000		
November 1926	151	104	183
September 1928	173	86	184
November 1929	132	102	185
November 1930	158	62	188

Statistical Appendix of the Macmillan Report.

term debts which proved to be its undoing [1]). Once again, then, we come to the conclusion that it is the tremendous growth of the international short loan fund combined with its increasing mobility which is one of the most fundamental causes of the breakdown of the gold flow mechanism.

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It should be clearly understood that the foregoing analysis of the causes of the continued maladjustment between England's long term investment abroad and the surplus available for capital export does not pretend to give a full explanation of the origins of the collapse of 1931. For one thing, the facts seem to indicate that the process of borrowing short in order to lend long came to an end sometime in 1929 since according to the Macmillan Report England's net foreign liability on short term account reached its peak at the end of 1928 [2]). It is by no means certain however,

[1]) The author does not ignore the fact that in post war times and even before the war, the gold flow mechanism has not been left to function automatically in the literal sense of the word. Since central banks have learned to forestall gold movements by anticipating their effects there is no longer any question of a purely mechanistic functioning of the gold standard machinery. Still, in a wider sense the automatism persists. In fact, central bank intervention and anticipation has made it even more pronounced.Thus,when the Bank of England manipulated Bank rate so as to maintain the inflow of foreign balances necessary to offset the drain of overlending, it really helped this drain to produce its "automatic" effect without first going through the time consuming and expensive process of physical gold exports. Similarly, when a central bank anticipates private gold arbitrage by shipping metal and bolstering up the foreign exchange market with the proceeds of the shipment, the automatism of the gold flow mechanism is not essentially altered. The Macmillan report puts it concisely in saying that the gold standard "is automatic only as an indicator of the need for action and the end to be achieved".

[2]) If the failure of the volume of capital exports to adjust itself to the current balance cannot be traced, therefore, to the vitiating influence of the huge reservoir of international short term funds it must be at least partly due to the other fundamental disturbance already mentioned: the lack of interreaction between money rates and long term capital movements. The year 1929 gives a good example. In the first three quarters of that year there was a heavy outflow of foreign balances towards New York. Sterling ruled continually near the gold export point with the result that by October the Bank had lost £ 23,000,000 since the beginning of the year. Bank rate which until February had stood at 4.5% was raised by stages to 6%. In such a situation theory leads us to expect a diversion of capital investment from foreign markets to the home market. Yet what happened is that England continued the export of long term capital on much the same scale as before. In the first half of 1929 when the Bank rate was one percent higher than in the two preceding years and before the imposition of the embargo on foreign loans, new foreign issues sold in London came to £71,000,000 comparing with an average for the three preceding years of £68,000,000, Indeed a striking illustration of the complete independence of the movement of long term funds from changes in money rates.

that the figures of the Macmillan Report are conclusive as they include only a part of the various types of credits which go to make up the total foreign liability [1]). Secondly, not being an "economic determinist" we do not believe that the overlending process necessarily *had* to lead to a breakdown of the gold flow mechanism. All that is claimed for the argument developed in the foregoing, therefore, is that it has uncovered one fundamental weakness in the development of England's international position which rendered her situation particularly exposed to the fortuitous conspiracy of political, psychological, and economic events which were the direct cause of the suspension of gold payments. A weakness, however, which is likely to remain a permanent feature of the post war gold flow mechanism as long as the mobility and the size of the short loan fund remain as they are today.

The nature of the events referred to is for the most part familiar knowledge so that the briefest summary will suffice at this point. Next to the overlending process a number of other adverse influences had been steadily undermining England's power of resistance against eventual shocks for several years before the final breakdown. Thus the rather vague but none the less potentially dangerous belief widely held abroad that England, so long one of the masters of the world, was at last on the downgrade, financially, economically, and politically. Especially the convenient "decline and fall" slogan with its seeming claim to historical justification and its gratifying romantic tinge found a widespread and uncritical acceptance. Any one who has ever worked in a financial district, be it the City of London or Wall street, will recognize the uncommonly powerful influence these hazy generalizations can exercise on the attitude of the business community. It was on this soil of largely unreasoned distrust that the weeds of fear and panic flourished so abundantly in the fatal summer of 1931. Exerting a similar influence and closely bound up with the general "evolutionary" misapprehension concerning England's future was the improvident management of the country's finances by the Labour Government of 1929—1931. Together with the heavy growth of London's short term indebtedness these two influences prepared the way for the suc-

[1]) Economist (Dec. 13th 1931) holds that there was a heavy influx of short term funds in 1930.

cession of blows to foreignc onfidence which at last forced England off the gold standard.

The first of these was probably the publication of the Macmillan Report on July 13th with its unexpected revelation of the extent of London's net liability on short-term account [1]). To many foreign bankers comfortably settled in the old beliefs this was the first intimation that London was no longer a net creditor but a heavily burdened debtor, a rude awakening indeed. At the same time it became clear that the lion's share of Germany's short term debts had become definitely frozen with the result that fear as to the liquidity of the English banks which were supposed to have large commitments in Germany, spread its disorganizing influence in foreign creditor markets [2]). At the end of the month when the Bank had already lost £ 32,000,000, the widely publicized and gravely pessimistic May report on the state of the national finances deals another heavy blow to foreign as well as domestic confidence. The report is followed by a campaign to force a balancing of the budget under the slogan "the pound is in danger" [3]), calling widespread attention to the serious deterioration of the balance of payments. The last and final blow falls with the outbreak of the naval unrest at Invergordon. After having repaid approximately £ 200,000,000 of foreign debts England gives up the struggle.

So much for the direct sources of the confidence crisis which led to the memorable 21st of September. About the failure of the gold flow mechanism this brief review can teach us little that is new. That the huge withdrawals of short term balances were the direct cause of the ultimate collapse is beyond question. As the Economist says: "The immediate cause of the crisis was the big drain from London on capital account. The sudden disappearance under the stress of the world trade depression of our normal favourable balance of payments was to a limited extent a contributory cause.

[1]) Neither the failure of the Kredit Anstalt nor the German crisis that had preceded had impaired London's position visibly; on the contrary, they had given rise to a repatriation of domestic funds and a flight of foreign capital towards England which raised the Bank's gold stock from £ 150,000,000 at the outbreak of the troubles in Vienna on May 13th to £ 165,800,000 in the beginning of July.

[2]) Since then the splendid fashion in which the British banking community has come through the heavy runs of July and August has shown how unfounded these fears were.

[3]) Benham, loc. cit. p. 39.

Yet it was then and still is only of minor consequence for the most pessimistic estimate was only one of £ 2,000,000 a week whereas on occasions in August funds of several times that amount were withdrawn on capital account in a single day" [1]. As we have seen in earlier chapters the rise of interest rates which is relied upon to check the outflow of funds and restore equilibrium is totally ineffective in periods such as the summer of 1931. It is true that in England no drastic attempts were made to check the drain by a sharp rise in the Bank rate. The highest figure throughout the crisis was 4.5%. But in view of the proven ineffectiveness of high bank rates in Germany it is highly likely that "no rate however high would have served to check the outflow of funds" [2]. It is this failure of the short term corrective which affords the superficial explanation of the collapse of the gold flow mechanism in England. The fundamental one lies with the various features and tendencies of post war monetary and economic conditions discussed in the foregoing which have impaired the operation of the mechanism in the period before the crisis and in so doing have led to the accumulation of the huge amount of short funds that proved to be its undoing.

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[1]) Banking Supplement of Oct. 10th 1931.
[2]) Ibidem.

CHAPTER VII

CONCLUSION

> La Matière *invite* l'Esprit à lui donner l'existence qu'elle ne peut se donner seule et peut-être lui suggère ce qu'il doit faire pour la lui donner.....
>
> JULIEN BENDA

> Aber die "Internationale Reserve Bank" ist ein höchst unaktuelles Zukunftproblem weil sie ein eminent politisches Gesicht hat.... Der Weg zur "Internationalen Reserve Bank" führt über den Rhein, ist also auf lange Frist noch durch Soldatenspielen ungangbar gemacht.
>
> K. A. HERRMANN

At last our factual record of the gold flow mechanism is complete. No doubt it could be considerably enlarged for by going into the monetary history of other nations a host of additional examples of the mechanism's inefficiency could be adduced. As we are bold enough, however, to believe that the analysis of the experiences of the few countries dealt with has laid bare the major obstacles to the mechanism's functioning, no good purpose will be served by the accumulation of further evidence. Repetition never strengthens argument. An ordered review of the case which has been built up in the preceding pages will show that what has prevented the mechanism from accomplishing its purpose is not an accidental non-recurrent combination of fortuitous circumstances but the obsolete nature of the mechanism itself, its logical and factual inability to meet the demands of a growing economic society.

This inability has shown itself under several aspects. Consider first the fate of the long term corrective, the process whereby a money movement from one country to another eliminates itself through its reciprocal effects upon bank reserves, credit, prices and the balance of trade. *It is not too much to say that in the world*

of today this automatic self-adjustment can no longer operate. For as we have demonstrated in the analytical chapters, at every point of the chain of cause and effect which leads from gold inflow to a changing trade balance the growth of the world's body and the growth of its mind have erected formidable obstacles whose cumulative effect cannot but break the sequence and defeat the corrective tendency. Is not the evolution of credit control alone sufficient definitely and permanently to incapacitate the long term corrective? The question leaves no room for doubt. If a gold inflow is killed at the source which is exactly what credit control does, this in itself is enough to seal its doom and to rob it once and for all of its self-adjusting influence. And who shall doubt but that credit control is here to stay, nay, more than that, that we must make it stay? To deny this is not only to deny the evidence of fact, it is to deny the power of mind over matter, it is the renunciation of all material and ethical progress.

The evolution of credit control is only one of the many factors which have rendered the long term corrective obsolete. It is flanked by others and equally powerful ones. Price and wage rigidity for instance. Just as credit control breaks the first link of the causal chain so the rigidity of modern economic society breaks the next to the last link [1]). And here again it is beyond question that we have to deal with a permanent obstacle to the functioning of the long term corrective. Let us leave it to the poets to bemoan the glorious sense of power, the unrestrained liberties, and the boundless fruitful energies of economic individualism. But let those whose face is turned towards the future free themselves from nostalgic longings for what is gone and gone forever. It is not through the mummy of John Stuart Mill that we shall exorcise the spectres of Marx and Lenin! To ask that in

[1]) Throughout this study we have spoken of economic rigidity as one of the "modern" obstacles to the long term corrective. It need hardly be emphasised that it is only a modern phenomenon in its quantitative sense, not qualitatively. The natural concomitant of industrial integration and the organisation of labour, it has been growing steadily, more rapidly in some countries, less so in others, all through the last hundred years. As early as 1844 John Fullarton, that very clear-headed exponent of the roseate delusions of orthodox theory, recognized the difficulties with which the long term corrective has to struggle in overcoming the resistance of economic rigidity. Witness the implications of the following passage. After declaring that a contraction of currency will not stop a drain of gold he goes on to say that "the real rub is in the denial of the loan.... the whole frame-work of commercial confidence must be broken up, every holder of goods or credit compelled to sell.... It is a remedy which to be effective must be violent." (On the Regulation of Currencies p. 141, 1844).

the future the ruthless law of supply and demand shall be allowed to determine the remuneration or non-remuneration of labour and thus to keep its price flexible, is not only impractical but nothing less than suicidal.

We said a moment ago that economic rigidity has destroyed the next to the last link in the causal chain of the long term corrective. But this does not imply that the last link has remained intact. Tariff manipulation has seen to it that it too has been appreciably weakened. It needs no great deal of insight to understand how this factor has operated to incapacitate the self-adjusting force of gold movements. For even were all the other obstacles absent, were a gold movement allowed to produce its reciprocal effects upon the volume of credit and were prices flexible enough quickly to respond to such changes, even then the manipulation of tariffs alone is sufficient at the last moment to prevent the effective operation of the redistributive mechanism. Prices may fall in the gold-losing country and rise in the gold-gaining country without in any way affecting the direction of the gold movement if by raising import duties the country with the rising price level deliberately prevents the impending alteration of the trade balance from taking place. Obviously it is a 'remedy' which to be successful must constantly be repeated. But as recent experience has shown, there is nothing to keep the nations from committing such follies. It is but a slight comfort to note that there is also nothing to compel them to put this artificial obstacle in the path of the long term corrective. In this respect tariffs differ from the other impedimenta to a proper functioning of the gold flow mechanism such as credit control and economic rigidity. The latter are here to stay and so much the better for us. The tariff obstacle can be removed at will, however. Essentially no more than a manifestation of the revolt against the growing interdependence of nations which long years of commercial and financial interpenetration have brought about, it can be eliminated as soon (sic) as morality and good sense triumph over the blind barbarism of political and economic nationalism.

This brings us to another hindrance to the long term corrective; the modern practice of the gold exchange standard. By buying foreign bills whenever the exchanges rise to the gold import point the Central Bank of the gold exchange country,

while allowing a credit expansion to take place within its own borders, prevents the reverse influence from making itself felt in the country with the falling exchange. In this way the tension between interest rates at home and abroad and the subsequent tension between natural and external price levels is reduced to one half of what it would be had an actual movement of gold been allowed to take place. Like tariff manipulation the phenomenon is so widely known that it has been given only a passing mention in our study. Moreover, like tariff manipulation, it is a man-made obstacle to the functioning of the redistributive mechanism and not an organic one. It need hardly be emphasized, however, that neither the elimination of gold exchange practices [1]) nor that of tariff manipulation which are but two of the many grains of sand between the wheels of the redistributive machinery, will be sufficient to restore it to working order as long as the other and far more powerful obstacles to its functioning remain.

As has been repeatedly pointed out already two of these obstacles, credit control and economic rigidity, must be counted upon to do so. Not only is their cumulative power of resistance more than strong enough to disable the long term corrective but also it is further strengthened by the addition of still another type of friction. We have in mind, of course, the vitiating effect of large scale movements of short term funds upon the long term equilibrium tendencies of the balance of payments. The analysis of the English experience has made clear how this factor operates to delay the reestablishment of natural equilibrium and how the delay so occasioned undermines the power of the short term corrective. Briefly recapitulated the lesson gained from England's recent monetary history is as follows. Recurring deficits on the balance of payments, whether due to import excesses, overlending or any other factor, are prevented from setting in motion the long term process of contracting credit, falling prices, and changing balance of trade, by the immediate effect they exercise upon money rates and the subsequent inflow of foreign funds resulting from it. The short term corrective of capital movements functions so smoothly and the size of the short loan fund allows it to

[1]) We will have occasion to point out a little later that inasmuch as the gold exchange standard represents a phase in the evolution of the World Bank principle its elimination is undesirable from a long term constructive point of view.

function on such a huge scale and over so long a period of time that the operation of the long term corrective and the reestablishment of balance of payment equilibrium is indefinitely postponed. The result is that as long as business confidence remains unimpaired the fundamental disequilibrium is allowed to persist at the price of an ever growing volume of external short term debt. Thus a situation is created where the correction of a subsequent temporary disequilibrium such as usually occurs in the downward phase of the business cycle either as the result of foreign trade declines or foreign withdrawals becomes progressively more difficult. For in the downward phase of the cycle the power of rising interest rates to attract foreign capital is to a large degree dependent on the amount of such capital already in possession of the debtor market. Hence our conclusion that the longer the period of time over which the short term corrective is allowed to substitute for the long term one, the greater the danger that when it is really needed it will not only fail to come to the rescue but may even "fly into reverse". And since the extent to which it can so substitute is directly dependent on the size of the short loan fund and we found that there was no reason to expect the latter to undergo any significant diminution in the future, it is clear that like credit control and economic rigidity this last and powerful hindrance to the long term corrective affords still one other cogent reason for the definite scrapping of the gold flow mechanism.

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Here we must be prepared to meet a few objections. "Certainly", it will be said, "we grant you that credit control, economic rigidity and the size of the short loan fund are logically incompatible with the operation of the long term corrective. But whether they will actually incapacitate it depends on the degree in which they are present. A little credit control, a little rigidity, a small growth of the short loan fund may render it a little less efficient but that does not mean that it is definitely played out. Your conclusion that it is played out is wholly due to your gross exaggeration of the actual importance of these impediments". Deserved as this reproach may be in some ways, it is not hard to see that it cannot succeed in making out a tenable case for a re-

turn to the old state of affairs. Suppose we have been guilty of exaggeration, suppose the hampering influence of the three factors mentioned has not been as great as we have pictured it. That does not alter the fact that the resistance which they put in the way of the long term corrective is cumulative. Three little obstacles together may well make one big obstacle, apart altogether from the additional friction of an accidental nature with which the long term corrective has always had to contend. Secondly, even assuming that all of them together were not strong enough definitely to kill the long term corrective but only to render it less efficient, it is hardly commendable policy to accept this impaired efficiency as one of the inevitable dicta of fate and let it go at that. Experience of the last few years has shown conclusively enough where the practice of muddling through leads to. Finally, from the point of view of future reconstruction it matters less how much exactly credit control, rigidity, and the short loan fund have contributed to checking the long term corrective in the past, than how much they are likely to do so in times to come. At least as far as the first two are concerned there can be no doubt that their contribution will continue to grow. Right now they may still be in their infancy but infants grow and the wise father will tell the tailor to allow for this in cutting the cloth in which they are to dress themselves.

If, therefore, the objection that we have overstated our case and that the three organic obstacles need not always and completely incapacitate the long term corrective proves unacceptable as an argument for continued faith in the gold flow mechanism, there remains another and far more convincing criticism of our contention that the inability of the long term corrective assigns this mechanism to the scrapheap. It is the view that it is immaterial whether the long term corrective has become obsolete or not as long as the short term one continues to function. This indeed is the implied opinion of most defenders of the old gold standard for as a review of the current literature on the subject will clearly show, there are not many left to believe in the possibilities of the long term corrective [1]). Recognising the latter's

[1]) If this admission lays us open to the charge of having stabbed a corpse in the foregoing demonstration of the price corrective's inefficiency we would like to counter that it is usually only when an economic theory has received death at the hands of experts that its ghost begins to haunt popular and political opinion.

obsolescence they nevertheless continue to believe in the efficiency of the redistributive mechanism on the strength of their faith in the short term corrective. Evidently the tenability of this defence of the old gold standard depends on the validity of two assumptions. The first of these is that the interest rate corrective can successfully do the work of its older and now deceased sister. The second is that this short term corrective always responds smoothly to the needs of an even distribution of world money.

As to the first assumption, it is correct inasmuch as the modern size of the short loan fund does indeed allow the interest rate corrective to substitute for the long term one for an almost indefinite period of time. Of course in the fact of substitution itself there is nothing new. On the contrary, it is an established principle of gold flow theory and an equally well known fact of gold flow reality that the operation of the long term corrective is always preceded by the intervention of the interest rate corrective. The novelty of the modern state of affairs lies in the fact that the interest rate corrective no longer intervenes for a limited period of time after which to leave the field to the long term one which alone can eliminate the cause of the disequilibrium, but that it has become a permanent substitute, thereby allowing the disequilibrium to persist indefinitely. In other words, while it is true that the size of the short loan fund enables the short term corrective to supplant the long term one it is far from true that it has come to fulfil the latter's task. The proposition should be self-evident. For money movements can never be a real corrective in the sense that they eliminate the cause of gold movements, a disequilibrium in the balance of payments. They are and never can be more than a delay of execution helpful enough if the disequilibrium is transitory but useless, no, more than that, positively dangerous if the maladjustment is of a permanent nature. Dangerous because they lead to the accumulation of short term credits which through their very magnitude constitute the gravest threat to the continued functioning of the interest rate corrective.

This brings us to the second of the two assumptions, the belief that the short term corrective is thoroughly reliable and that gold movements through their reciprocal effects upon money rates in the gold losing and gold gaining countries will always give rise to the reflux of funds necessary to reverse the gold flow. It

should be perfectly clear, however, that the short term corrective is anything but infallible. Certainly, during the ascending phase of the business cycle it works with the precision of a clock. In fact it is undeniable that with the extensive financial interpenetration of post-war times and the tremendous progress of intranational communication, the interest rate corrective has become a far more sensitive instrument than in earlier days. But this high standard of perfection under fair weather conditions should not blind us to the recognition of its total failure in times of stress. More than that, it should be clear that such failure is well nigh inevitable and that the very perfection of the instrument's functioning during the upward phase of the business cycle is one of the direct causes of its waekness in the downward slope of the spiral.

It is important at this point clearly to differentiate between the act of failure of the short term corrective, the inability of interest rate differentials to govern the flow of capital, and the causes of this failure. The former is the obvious fact. Whether it is likely to recur again can only be determined by investigating whether the factors that give rise to it are of a recurrent nature. We think they are for they can be reduced to these two things: the immense size of the fund of liquid and semi-liquid capital which can be moved from one market to another, and business or confidence cycles. Once these phenomena are accepted as existing facts and as facts of tomorrow as well as of today, the conclusion that the short term corrective is no longer a reliable instrument becomes inescapable. In the preceding chapters we have seen how this conclusion was reached. Recapitulating the arguments there developed what we found was briefly this. First, in modern times the volume of external short term credit has grown to be several times as large as before the War without a corresponding growth of gold reserves. Second, the modern function of international short term credit and the forms which it usually assumes are such as to render it particularly subject to sudden shifts. Third, these shifts, inspired as they almost always are by financial or political "scares", are most likely to occur in the downward phase of the business cycle when capitalist timidity has already widened the interest rate differential necessary to cause a reflux. Fourth, the movements of strictly short term credits so occasioned are often

accompanied by a flight of domestic capital and a withdrawal of essentially long term credit made possible by the latter's present day volatility. Fifth, the impact of these various forms of capital movements upon the debtor country's gold stock and consequently upon its money market is usually such as to send interest rates quickly to the point of "ultimate resilience" where the attractive effect of rising money rates suddenly changes into a repellent effect. Of course this last result need not always take place. The ultimate kickback of the interest rate corrective is not to be considered as the logical outcome of the size of the short loan fund, its function, the timing of the movement, and the volatility of long term investments, the way the failure of the long term corrective is the logical outcome of credit control and economic rigidity. All we maintain is that the four phenomena mentioned which it must be remenbered are all mutually interdependent, tend to bring about a situation particularly propitious to the emergence of the irrational element *fear* which is the direct cause of the short term corrective's failure.

No doubt there will be those to whom the knowledge that the greater size of the short loan fund and its attendant characteristics are not irrevocably bound to upset the redistributive machinery, will be sufficient justification for persisting in the comforting inactivity in the face of a rapidly changing world which has brought about the recent disaster. Since the machinery *may* work, so their argument will run, why not give it another chance? Why discard an old and trusted instrument and impose on ourselves the difficult task of devising a new one before that instrument has proven absolutely unworkable? Why? Simply because the alternative to success is at once too probable and too dangerous. Because it means staking the world's economic stability with all that implies to political equilibrium on a three to one chance. Because already the gradual evolution of economic individualism, political liberty, and international solidarity, has been so gravely threatened by the shock of the last monetary collapse that we dare not risk another. Finally, because our intellect is honour-bound to face the challenge implicit in the insufficiency of existing institutions.

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And so we come at last to the question what we propose to build on the ruins of the old order. If we are dissatisfied with the past what have we to offer for the future? What shall be our new deal? The answer has already been suggested at several points in our study. It can be summed up in the words International Reserve Bank. Let us not be intimidated by the clamour of facile and superficially convincing objections which doubtlessly will be raised against this conclusion. For neither the reproach of want of originality nor that of utopianism can do anything to impair its inevitability. That the International Reserve Bank is an old idea only strengthens our belief that it is a commendable idea [1]). The greater the number of doctors who agree on the nature of an illness and the remedy to be applied, the greater the likelihood of that remedy being the correct one. As to the charge of utopianism no one aware of the political implication of an international reserve bank will deny its justification, the author least of all. But is the acknowledged impossibility of an immediate application of the ideal solution enough to reject its discussion as a waste of time? Are all proposals of a utopian nature eo ipso to be refused serious consideration? Is idealism always tantamount to impracticality?

Those who would answer these questions in the affirmative would do well to consider Chesterton's defence of the practical value of idealism. Listen to the following excerpts. "The definite ideal is a far more urgent and practical matter.... than any immediate plan or proposals. For the present chaos is due to a sort of general oblivion of all that men were originally aiming at.. The whole is an extravagant riot of second bests, a pandemonium of *pis-aller*. Now this sort of pliability does not merely prevent any heroic consistency, it also prevents any really practical compromise. One can only find the middle distance between two points if the two points will stand still.... If our statesmen were visionaries something practical might be done. If we asked for something in the abstract we might get something in the concrete. As it is it is not only impossible to get what one wants but it is impossible to get any part of it because nobody can mark it out plainly like a map" [2]). Every one of these words is as true of our

[1]) For a historical survey of the development of this idea see W. Trimborn, Der Weltwährungsgedanke, 1931.

[2]) G. K. Chesterton, What's Wrong with the World, 1912.

present difficulties in regard to monetary affairs as they were of those which inspired them twenty years or more ago. What is needed to bring our problem nearer to a practical solution is first of all a full realization of the ideal solution, a clear view of the ultimate aim. For without it the immediately practicable remedy can never be a fruitful compromise between the possible and the ideal in the sense of fulfilling the real meaning of the term which as Chesteron has said "contains among other things the rigid and ringing word ,promise'".

Now it may well be asked what has led us to the conclusion that an International Reserve Bank is the ideal for which we must strive and also what exactly we have in mind when speaking of an International Reserve Bank. The latter question can be answered very briefly. The institution which we envisage as providing the only logical and historical solution to the monetary problem must be nothing more and nothing less than an International Central Bank fulfilling the same functions and exercising the same powers in the world at large as the several National Banks now do within the limited sphere of national boundaries. There is no need to define this definition of the future World Bank any further for the very fact that such an institution is on the face of it incapable of practical realisation within the present generation if not within the next dozen generations renders a detailed description of its proposed features totally superfluous. The very essence of an ideal, its futurity, precludes the possibility of planning all the features of the reality into which it must translate itself at a later time when present realities shall have become past memories. All that need be said about the International Reserve Bank, therefore, is that it must act as a National Bank of present times. In other words, for this will be its essential function among the countless contributory tasks which it may come to exercise, it must be capable of influencing movements of world money in such a manner that no one part of the world economy over which it is to rule shall be allowed to suffer the disastrous drains which the gold flow mechanism has proved unable to prevent. Just as modern Central Banks are ready by increased rediscounting to meet a local currency shortage for which the natural correctives do not afford a sufficient remedy, so the World Bank must be ready to meet a national currency

shortage whenever the private profit motive fails to bring relief [1]).

This brings us to the question on what grounds we base our belief that the International Reserve Bank is the only way out of the present impasse. The reasoning which led to this conclusion is not difficult to follow. Recall what was our diagnosis of the origin of the gold flow mechanism's decay. The most important single cause we found to be the growth of the fund of liquid and semi-liquid international capital which has rendered the interest rate corrective a thoroughly unreliable instrument. As the sad experience of recent years has so clearly shown, once this instrument fails the maintenance of stable exchanges and international monetary solidarity is irrevocably doomed. The amount of funds that can be moved from one market to another being practically unlimited and almost always several times greater than the losing market's available gold reserves, any temporary slip of the interest rate corrective is enough to bring these reserves to the point where further drains are forcibly prohibited thereby making an end to monetary solidarity. If we agree, therefore, that solidarity must be maintained, that the interest rate corrective cannot be relied upon to do so, and that is it useless to contest the permanence of the phenomena which have rendered it obsolete, then our task becomes that of finding a substitute.

This substitute can be no other than a Central institution operating for the collective interest, which by forcing a reflux of funds to the losing market shall allay the fear which has put the natural corrective based on private interest out of commission. For note that it is this bankruptcy of private interest as the regulating and balancing force of economic life which lies at the

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[1]) To see the analogy between the functions exercised by present day Central Banks and those which the World Bank shall have to fulfil, recall America's monetary situation before 1913. It affords the perfect miniature of the world's situation in our own time. The establishment of the National Bank System in the U.S.A. roughly corresponds to the acceptance of the international gold standard in the world at large. The former created a common measure of value for America just as the latter created a common measure of value for the world. Followed the difficulties of maintaining a smooth distribution of the units of this measure of value. As long as business was "normal" the recurrent movements of currency from New York to the Interior and vice versa evened themselves out smoothly enough. But every time confidence was impaired the interest rate corrective failed and debtor banks in New York were forced to suspend cash payments, witness the crises of 1873, 1884, 1890, 1893, 1907. It is exactly the same phenomenon as we have seen in the world at large in the last few years. America had solved its difficulties by founding the Federal Reserve System. The moral of the story is obvious.

bottom of the failure of the gold flow mechanism just as it lies at the bottom of the failure of many other time honoured institutions of an economic nature [1]. Where private interest would command that rising interest rates should be accompanied by an influx of funds from abroad, fear, for reasons already explained and which may be summed up in the tremendous growth of readily movable capital, intervenes to turn their attractive effect into a repellent one. Private interest then commands a movement of funds *away* from the losing market and the result, of course, is one which is completely destructive of both the private and the collective interest. The curious thing is that while we have long since recognised this inability of the private interest motive to maintain monetary equilibrium and to promote the collective welfare in the national sphere, we refuse to do so in regard to the international field. Flights of local capital into national currency, withdrawals of external credit, seasonal outflows of funds, all the disturbances of monetary equilibrium within a country which the natural correctives proved unable to even out are now present in the international field in the form of flights of domestic capital into foreign currencies, withdrawals of foreign credit, and trade balance drains. Never was there an economic illness whose nature was more clearly understood and whose remedy more obvious and more certain. Nation after nation, conscious of growing into material manhood, has discarded its adolescent belief in economic fairies and submitted itself to the monetary discipline which growth made indispensable. But the world at large, the nation of the future, is still too deeply wrapped up in moral and political adolescence to heed the obligations which material maturity implies. As concrete an economic unity, as intertwined with financial and commercial relationships as each nation was at the time it

[1] Struggle as we may against the recognition of this fact — and the author himself from the beginning of his economic studies seduced by the harmonious appearance and the smooth mechanistic operation of an economic organism constructed on the theorem of the identity of private and collective interest and passionately attached to the individual liberty which it seems to promise, has probably had as hard a battle with his orthodox leanings and capitalist bias as any one — struggle as we may, there is no escaping the admission that the world has grown too big for private interest to retain its autocratic rule. It does not require a humanistic temperament or instinctive sympathy with the underdog to see that this is so. Even the most hard-boiled capitalist with his eyes open to the enormous changes which economic society has undergone since the heyday of laissez faire, will long since have realised that private interest must be made a constitutional monarch if mob rule is to be avoided.

met the growing monetary difficulties with the establishment of a Central Bank, the world still refuses to follow suit and swallow the one and only remedy which can afford permanent relief [1]).

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The explanation of this unwillingness to accept the lessons of history lies, of course, with that false creed which is threatening all civilization, the "sacred" principle of absolute national sovereignty. For let it not be thought that it is ignorance of the logical

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1) Perhaps it will be objected that the views expressed in the text give a false picture of the genesis of Central Banks. It will justly be said that Central Banks were created not so much to counteract drains of currency from one part of the country to another as for the purpose of meeting "local" drains, sudden demands for currency upon a local bank occasioned either by a distrust of that institution's liquidity or by a natural need for greater cash supplies. To a certain extent the objection is valid. Most of the older European Central Banks were indeed originally devised to act as standby in times of strain rather than as a redistributive agency. Yet a moment's consideration will show that in being created for the former purpose these institutions responded to essentially the same needs as those that now so urgently demand the creation of a World Bank. In former times it was the distrust of the local banks' liquidity showing itself in persistent demand for cash not to be checked by rising interest rates which gave rise to the need for a rediscounting agency able to support the bank's cash reserves and thus to allay the local panic. In our day and in countries with a firmly established banking system such as England, the distrust and the difficulties to which it gives rise are of a somewhat different nature. The danger of a run on the banks has largely made way for the danger of a run on the currency or to put it in more familiar terms, a flight of capital. It is exactly the same phenomenon on a wider scale. At the time when European Central Banks were created fear sent capital to seek refuge in national currency. In our time capital flees to foreign currencies. Our ancestors met their problem by founding a national institution capable of providing the unlimited supply of national currency which alone can allay fear and stop the internal flight of capital. Our descendants will solve their problem by founding an international institution capable of stopping an external flight of capital.

Of course it is not entirely true that the old Central Banks' function was merely that of stopping an internal drain of currency from the banks just as it is not entirely true that the World Bank shall only have to counteract external flights of capital in the strict sense of the word. For with the progress of economic and financial interpenetration within the nations the effect of local distrust came to show itself in a different way. Currency was no longer withdrawn from the banks and hoarded away but was redeposited in other banks, sometimes in the same locality, sometimes in distant cities. At the same time the supply of funds in each locality came to be more dependent on the commercial and financial relations between it and other localities. Seasonal drains of currency as well as interlocal movements of short term capital begin to make their appearance. Hence the functions of the Central Bank multiply. It no longer acts merely as a currency reservoir ready to remedy a currency drain from local banks to local hoards, but is also called upon to exercise its redistributive powers in the case of a seasonal drain to other localities or a withdrawal of non-local funds or a flight of local capital to other places. The analogy between past needs which gave rise to Central Banks or which if they arose after the establishment of such institutions were successfully met by them, and our present needs calling for a World Central Bank could not be more complete.

solution to the monetary problem which is preventing its final settlement. Both theoretical experts and practical men have long since recognised the need for a world bank or, failing that, the effective co-operation of national banks capable of fulfilling the essential functions of a world bank. But no sooner does it become clear that international monetary management to be effective must be paid for with a sacrifice of political and economic autonomy than the bargaining between reason and passion begins. The result is either a frank abandonment of all pretence at international management or one of those high sounding but meaningless resolutions of which the Macmillan Report affords the most striking illustration. The report gives so clear an example of the dangers attendant upon the disregard of Turgot's warning that "quiconque n'oubliera pas qu'il y a des frontières entre les nations ne traitera jamais bien aucune question d'économie politique" that a brief passage may profitably be cited here. After an admirable analysis of the causes of the gold flow mechanism's failure the signers of the report conclude their recommendation for a policy of international cooperation in the following terms. "This form of joint policy should be consistent with a full measure of autonomy for each national institution. In particular each Central Bank should remain free to attract gold to itself when it deliberately desired to do so, without incurring blame or exciting complaint from the other Central Banks: to raise its own bank rate relatively to that of the others even though this were contrary to an *agreed* [1]) general policy of reducing rates if it deemed this necessary for the protection of its own gold position...." Was there ever a more fragrant example of the utter humiliation of both intelligence and morality which is the inevitable consequence of subjugating reason to political passion? For translating this recommendation of the Macmillian Report into plain language, its advice seems to come down to this: "you must all be good and work together for the common interest. But if at any time your own interest does not happen to coincide with the collective interest then by all means consider yourself free to do what you like and to blazes with everybody else". That is the principle upon which we are asked to build "the brave new world" of the future.

We need not lose much time in pointing out that this type of

[1]) Italics are the author's.

voluntary fair weather cooperation can never bring a satisfactory solution of the monetary problem. Not only does its failure to provide for a moral or juridical compulsion necessary to guarantee the supremacy of the international over the national interest doom it to the same fate as that which threatens the League of Nations, but also the principle of cooperation, even *real* cooperation, is intrinsically insufficient to meet our present needs. For it is clear that Central Bank cooperation still implicitly relies on interest rate correctives to maintain a smooth distribution of world money. Try to visualise a system of perfect cooperation under which the determination of discount rates is left to a truly international body. Now suppose a flight of capital from England to America taking place at a time when for purely internal reasons it would be in the latter country's interest to have relatively dear money. The international board, however, decides that in order to stop the drain from England American money rates must be lowered instead of being raised. Is this measure certain to achieve the desired result? Indeed not. It may do so but on the other hand the confidence crisis may be such that relative money rates have become completely powerless to direct capital movements. The private profit motive fails as we have seen it fail so often, and security of principal becomes the governing consideration. Thus the drain stimulated by fear for safety of principal comes to feed upon itself and it is all over but the shouting. Central Bank cooperation fails because instead of guaranteeing an unlimited supply of foreign currencies or gold which alone can restore security of principal and eliminate the cause of the drain,it merely facilitates the operation of the interest rate corrective. And as we know, that is not enough.

Cooperation, then, even real cooperation as we defined it a moment ago, can never give the solution to our problem. Only a world bank can do that because only a world bank functioning exactly like present day national banks, can check a drain which interest rate differentials are unable to stop. Only a world bank can support the losing market with an unlimited supply of funds and so allay the fear which is causing the outflow of capital. There is nothing new in this method of stopping a drain. The Bank of England had discovered it more than an hundred years ago and has put it into practice ever since. If it has not always

been successful this was due not to the principle itself but to the practical limitations of its application. It is self evident, however, that for the future world bank no such limits need exist. National Banks have sometimes been prevented from issuing enough new currency to stop the run on the banks by the danger that such "overissue" might give rise to an internal or external demand for conversion. But the world bank need fear neither of these two contingencies. That of the external demand for gold is, of course, per se impossible unless by that time we have established economic relations with the planets, while that of an internal demand is rendered very unlikely by the fact that the future world currency shall in all probability have no gold behind it in which it can be redeemed. For as soon as the world bank becomes reality the only cogent reason for maintaining a gold secured measure of value disappears. The essential function of gold being to maintain a fixed relationship between the various national measures of value it will become superfluous the day a world bank and its necessary concomitant a world currency appear on the scene, as a world currency means the complete elimination of national measures of value.

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Let us not peer too far into the future, however, and return to the baffling problems of today. We said a moment ago that Central Bank cooperation could not solve our difficulties because it fails to attack their deepest cause, the failure of the interest rate corrective. Yet there is little doubt that the ultimate aim, the world bank, shall only be reached via Central Bank cooperation. Already a few steps have been set on this difficult path. We have in mind the occasional instances of inter-Central Bank lending or rediscounting. Recent monetary history has shown several examples of this practice. Recall the international credits to England and Germany in the summer on 1931. In both instances they followed the realisation that the interest rate corrective could not stop the drain and that only the ability with the help of foreign banks to meet all demands for gold and foreign exchange could allay fear and stop the outflow of funds. In granting these credits the foreign banks temporarily and voluntarily assumed the duties

of the future world bank. But the very fact of the voluntary nature of this assistance determined its futility. For the remedy can only be effective if it can be applied indefinitely until its purpose is achieved. This, of course, our National Banks governed as they are by both the material limits of their available gold and exchange reserves and by the intangible limits of narrow national and often political interests, could not be expected to do. Hence the limited extent of their assistance and hence its failure to be effective. As Felix Somary has said "Analoge Wirkung wie eine internationale Notenbank konnten Vereinbarungen unter den Notenbanken verschiedener Nationalstaaten kaum je besitzen: die Einzelbanken müssten letzten Endes ihre Hauptaktiven untereinander teilen, was wohl, so lange Nationalstaaten bestehen, Utopie bleiben wird" [1]).

Next to inter-bank rediscounting there is one other monetary practice which may be regarded as a precursor of the world bank to come; the gold exchange standard. Every national bank operating under a gold exchange regime is really acting as an international reserve bank or as a modern Central Bank which is its prototype. The analogy can best be seen by considering the case of an inflow of funds into the country with a gold exchange standard. What happens is this. The nationals of this country draw on their foreign balances and turn over the checques so created plus those received directly from foreign capital exporters to the Central Bank in exchange for home currency or credits on current account. As long as skies are clear the Central Bank will be content to receive these checks without attempting to collect them (in gold) at the foreign banks upon which they are drawn. Consequently the latter's reserves remain unaffected and they are able to remain so because in accepting the checques the Central Bank of the gaining country is really rediscounting for the banks upon which they are drawn. In the national sphere the Central Bank increases the reserve balances of the gaining banks and subsequently makes up the corresponding decrease of those of the losing banks by increased rediscounting enabling them to maintain the existing volume of credit. In the international field it also increases the reserve balances of the gaining banks and *in the act of doing so* (by buying the checques drawn upon foreign banks

[1]) Bankpolitik 1930, p. 149.

and failing to collect them) rediscounts the paper of the losing banks, thereby replenishing their reserves and enabling them to maintain the existing volume of credit.The analogy is as complete as it is difficult to grasp. And the results of this procedure in the international sphere are exactly analogous to those in the national sphere. In both cases the Central Bank effects a redistribution of reserves and in this way it evens out sharp fluctuations in interlocal and international monetary relationships.

Just as interbank rediscounting, however, was found to be no more than a feeble attempt at guaranteeing international monetary solidarity, so the gold exchange practice is still very far from bringing about a new monetary order. For with the first sign of danger on the financial horizont the Central Banks which up till then have assumed the function of a world bank suddenly retreat within their narrow national shell. As soon as a heavy international movement of funds begins to threaten confidence in the losing markets these banks instead of strengthening confidence by continuing to accept checques on the losing market, suddenly reverse their policy and commence to collect not only the new bills offered to them but also those accumulated in earlier times. At the very moment that the redistribution of reserves implicit in a consistent operation of the gold exchange standard is most urgently needed to restore confidence in the losing market the creditor Central Bank further aggravates the confidence crisis by actively draining foreign reserves. The result of this attempt to play at world banking during fair weather conditions without following the rules of the game under less ideal circumstances is to cause a worse collapse than if no pretence at internationalism had been made at all. This has led a great many observers to conclude that the gold exchange standard lies at the bottom of our monetary troubles and that its elimination is one of the essential prerequisites for a reconstruction of the international gold standard. If you agree with the logical implication of this view, namely that a world bank and international regulation of money movements are Castles in Spain and that a restoration of the conditions in which the old gold flow mechanism can function is both possible and desirable, in short if you agree that historical development can be reversed, yes, then the validity of the demand for an abolition of the gold exchange standard is irrefutable. But if

you do not believe these things, if you have delivered yourself of the stagnating nostalgia for a lost paradise which was no paradise, if you are old enough to realise that the past cannot be retrieved and yet young enough to trust that the future can be made to redeem the past, if you have this mixture of realism and idealism, then it is clear that you must cling to the gold exchange standard with all your might, that you must nurse it through precarious infancy, that you must cherish it as the precious seed of better things to come.

* * *

There is not much left to say. Words have done their work. Action must now take their place. The outlook is not hopeful. The old international gold standard is dead but its ghost remains active, so active that "once normal conditions are restored" it is likely to reincarnate itself in but slightly different form. We have seen what we may expect from such reincarnation. Yet even the danger of a renewed collapse with all it implies to social and political peace is preferable to the alternative of restoration. To admit defeat, to accept the economic nationalism implicit in a system of separately regulated paper currencies as our ultimate destiny cannot but lead to a general decay of both material and moral civilisation. A thousand times better face the insufficiency of Central Bank cooperation, risk its dangers, and attempt despite all setbacks gradually to perfect it until the day we are ready to accept the one and only solution, the world bank. That day is still far distant. A gulf of moral weakness, a veritable abyss of political barbarism separates us from it. Whether we shall ever cross it is for every one of us to decide in his own heart.

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