

INTERNATIONAL MONETARY FUND

# STAFF PAPERS

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## Foreword

Among the responsibilities of the International Monetary Fund, as set forth in the Articles of Agreement, is the obligation to "act as a center for the collection and exchange of information on monetary and financial problems," and thereby to facilitate "the preparation of studies designed to assist members in developing policies which further the purposes of the Fund." The publications of the Fund are one way in which this responsibility is discharged.

Through the publication of *Staff Papers*, the Fund is making available some of the work of members of its staff. The Fund believes that these papers will be found helpful by Government officials, by professional economists, and by others concerned with monetary and financial problems. Much of what is now presented is quite provisional. On some international monetary problems, final and definitive views are scarcely to be expected in the near future, and several alternative, or even conflicting, approaches may profitably be explored. The views presented in these papers are not, therefore, to be interpreted as necessarily indicating the position of the Executive Board or of the officials of the Fund.

The authors of these papers, which were originally written at various dates during the last two years, take full responsibility for them. The authors have, however, received considerable assistance from their colleagues on the staff of the Fund. This general statement of indebtedness may be accepted in place of any detailed list of acknowledgments.

GUTT

*Managing Director*

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# Latent Inflation: Problems and Policies

E. M. Bernstein

**I**N TIME OF WAR, unless measures are taken to limit civilian demand, the aggregate demand for real resources for civilian uses and for war purposes invariably exceeds the available supply. This is an inevitable consequence of a war program, since it may be taken for granted that countries will not limit the resources they dedicate to carrying on a war. If a country engaged in war does not have an inflation problem, it is in fact not pushing its war effort to the maximum. Inflationary pressure is a natural by-product of war.

This was the common experience of every belligerent country in World War II. In some, as in the United States and Canada, an enormous expansion of output enabled a large part of the increased demand to be satisfied from greater production. In others, as in the United Kingdom, an import surplus financed by the liquidation of overseas investment, supplemented by lend-lease and foreign borrowing, provided resources that added to the supply available from gross national output. But neither greatly increased output nor a large import surplus was sufficient to prevent the development of inflationary pressures; this was as true in a fully controlled economy like Russia as in a comparatively free wartime economy like the United States.

In the occupied countries, the policies imposed by the enemy had the same inflationary effect as direct war expenditure. Enemy occupation, far from decreasing the pressure on resources, tended to increase it. Heavy occupation costs had to be met, and a considerable part of current output was exported to Germany without corresponding imports being received. Occupation costs produced heavy budgetary deficits met by borrowing from the public and from the banks. The export surplus resulted in large payments by the central bank to local producers, and these were represented by central bank claims on Germany.

If the increased wartime demand had been allowed to become effective, there would inevitably have been a sharp rise in prices, that is to say, an active inflation. Such inflation might have impaired the capacity of the economy to maintain production, and in particular to shift productive resources to war needs. Active inflation raises profits, and by making civilian production more profitable lessens the inducement to shift production from civilian to war uses. This



is the primary reason why controls were imposed in the belligerent countries and even by Germany in the occupied countries.

There were also important social reasons for preventing active inflation. Essentially, the inflationary pressure resulting from war needs meant that the volume of real resources devoted to civilian consumption had to be curtailed. It would have been socially intolerable, particularly in view of the increasing inequality of income distribution associated with inflation, to permit the burden of this reduction of consumption to be allocated among consumers in accordance with their ability to pay inflated prices. To assure a reasonable distribution of real income, governments used price controls to make inflation less active, and rationing to limit consumption inequalities.

One danger arising from active inflation requires special emphasis. The reduction of consumption imposed by rising prices means also a reduction in real wages. Under such circumstances, labor is likely, in an attempt to maintain real wages and consumption, to press for an adjustment of wage rates. Since in wartime consumption cannot be increased, any rise in wages will cause a further increase in prices without in fact increasing the real income of wage earners. An upward wage-price spiral may be unavoidable if wage payments are allowed to determine the volume of expenditure on consumption and if consumer prices are allowed to determine its distribution.

During the war, price ceilings and rationing were imposed, *inter alia*, to assure consumers that, although their desired level of consumption could not be maintained, the purchasing power of their wages would not be reduced. Deficiencies in consumption would be compensated by additional savings which presumably would be available for consumption in the future. Thus the pressure for higher wages, which would inevitably have accompanied an active inflation, was held in check as workers were induced to regard the accumulation of savings as an adequate but temporary wartime substitute for the maintenance of consumption.

### Repression of Spending

An attempt may be made to limit spending by the simple method of fixing the maximum prices that may be paid for goods. Supply being inadequate to meet demand at these prices, unspent income then remains in the hands of the public. This unspent income becomes unintended savings. Where supply shortages are not too great, the mere fixing of price ceilings may limit total expenditure sufficiently without imposing too serious hardships on any section of the community. The fortuitous limitation of consumption by price ceilings might, however, be unjust when applied to commodities of which even

modest shortages would affect the well-being of the people. In such cases, if the opportunity to consume is to be distributed in proportion to needs, price ceilings must be reinforced by rationing. Where the supply of consumer goods of all kinds is very short, rationing may have to be applied to a large segment of consumer spending.

Restraints not unlike rationing must also be applied to limit the use of resources for civilian investment. Indeed, just because the productive resources used for investment are most suitable for the production of war equipment, limitations on civilian investment are needed in wartime even more urgently than limitations on consumption. For this purpose, governments may use such devices as limiting the financial resources available to industry for civilian investment, requiring prior approval for investment, or allocating investment materials. The resources released in these ways, through consumer rationing and investment allocations, can then be used by the government for war purposes.

The funds to pay for the resources devoted to war and other government purposes may be in part raised by taxation. To that extent the incomes available to individuals and to business firms are diminished. The wartime needs of governments, however, are usually so large that the full financing of war by taxation has never been possible; governments have therefore relied on borrowing. When securities are sold to individuals or business firms (other than banks), the gross savings that correspond to the wartime deficit of the government take the form of holdings of government securities. When securities are sold to the central bank or to commercial banks, the savings of the public and of business firms to this extent take the form of currency and bank deposits.

The wartime repression of spending in World War II left consumers with greatly increased savings, much of them unwanted in the sense that additional consumption would have been preferred. At the same time the repression of outlays for investment left business firms with large liquid resources in the form of cash balances and government securities corresponding to their wartime gross savings. These resources were equal to the undistributed profits of business firms plus the liquid reserves resulting from the net reduction of their investments in inventories and equipment. Consumers were left with excess wealth which affected the desire to consume, and business firms and the public with excess liquidity which affected the desire to invest.

The repression of spending which is brought about by controls on consumption and investment does not eliminate the inflationary forces that have necessitated them. The inflation, however, is prevented from manifesting itself fully in higher prices. It remains in part a latent

inflation to be dealt with in the future. The latent inflation which exists at any given time is represented by the excess savings held by the public and the excess cash balances and securities held by business firms which they wish to apply to consumption and to investment in the near future. If this residue of wartime inflationary forces is not to become active in the future, means must be found to deal with latent inflation.

### Excess Private Wealth

The desire of the public to consume depends upon a number of factors, among which, for the purposes of this analysis, special emphasis should be placed on the level of income and of private wealth. Changes in the level of national income, which in some years may be as much as 10 per cent to 20 per cent in either direction, have a large and immediate effect on consumption. Changes in the aggregate level of private wealth (in real terms) are not, however, likely in ordinary times to vary by more than from -1 per cent to +4 per cent in a year, and consumption is unlikely to be much affected by such minor changes. After a great war, however, it would be a serious mistake to overlook the possibility that changes in private wealth may have been on such a scale as to become a major factor in determining the propensity to consume.

When the public find that their private wealth has increased rapidly by a very considerable amount, they will feel that, given the present and prospective levels of income, they have more private wealth than they wish to keep. The utility of present consumption relative to future consumption therefore rises very sharply. If the public could find some way to use part of their private wealth for consumption, they would do so. This may be attempted in two ways: either by massive spending of the excess private wealth held, concentrated in a short period, or more probably by a moderate increase in consumption relative to income maintained over a period of years until private wealth has been restored to a level more appropriate to present and prospective income levels.

In the United States, for example, the growth of private wealth during World War II may be roughly measured in terms of net new private investment plus the increase in the government debt. Between 1939 and 1945 net new private investment may have amounted to about \$10 billion and the increase in federal debt to \$215 billion. With no account taken of price changes, private wealth would thus have risen by some \$225 billion. Such a large change in so short a period must inevitably affect the propensity to consume when money can again be freely used to buy consumption goods.

The problem thus created for the monetary authorities is obvious. The wartime repression of spending will have kept the upward movement of prices within bounds; but this has not solved the inflation problem. Whenever the community recovers its freedom to choose between holding and spending the savings which have been accumulated, it will want to spend at least a part of them. In countries which escaped a steep rise in prices by repressing spending during the war, the postwar inflation problem has been to find some means of dealing with the latent inflation that remained, either by eliminating the excess private wealth of the community or by working it off. Otherwise, this wealth remains a threat to the price level.

Under any circumstances, and apart from the accumulation of excess private wealth, the propensity to consume is certain to be abnormally high after a great war. During the war, durable consumer goods are not available in customary amounts, and the setting up of many households must be postponed until demobilization. As will be shown later, this is not, in the long run, a very serious aspect of the postwar inflation problem, since deferred consumer demand (with the important exception of housing) can be satisfied without great difficulty as soon as the generation of new inflationary forces ceases. In the short run, however, it adds materially to the difficulty of dealing with latent inflation.

### Excess Liquidity

The wartime repression of spending creates not only a problem of excess private wealth; through the form which this wealth takes, it also creates a problem of excess liquidity. Just as the excess private wealth of the community tends to increase consumption demand, so excess liquidity tends to increase investment demand.

The attitude of individuals toward the accumulation of private wealth is extremely complex. As far as the amount to be accumulated is concerned, they wish by saving to add as much as will equalize their preferences for holding additional wealth and for current consumption. As far as the form of private wealth is concerned, their wish is to equalize their preferences for each type of wealth held. From this point of view, wealth may be classified in three broad categories:

- (a) Real wealth—including land and houses, business enterprises, and common stocks;
- (b) Money-at-interest—including government bonds, industrial bonds, mortgages, preferred stocks, and interest-bearing time and saving deposits;
- (c) Cash balances—including currency and demand deposits.

Individuals in distributing their accumulated wealth will give weight to their desire to maximize the income received from private wealth, their desire for assurance of stability in its real value, and their desire to hold some wealth in relatively liquid form. In ordinary times, the allocation of holdings of wealth among its various forms is part of the normal economic process, and can be achieved without great disturbance. Direct investment, the issue of new securities, changes in the prices of real estate and of securities, and changes in interest rates, all act to equalize at the margin the advantages of holding wealth in each of its forms.

After a great war the problem is far more difficult. During the war limitations on construction and investment made it impossible to increase real wealth to any significant extent. Nearly all the increase in private wealth in that period was due to the government deficit, so that of necessity it had to take the form, for the most part, of an increase in cash balances and in money at interest, primarily government bonds. This sharp change in the composition of private wealth is not likely to correspond to the long-run preferences of the public, and in time steps will be taken to correct it.

As already noted, some (although not all) of the additions to private wealth held by individuals will be regarded as excessive and will be held with a view to future spending. To that extent the public may have no objection to holding for a time a proportion of their wealth in the form of cash and money-at-interest greater than their normal requirements. But the public will undoubtedly regard some of the increase as permanent; and they will wish to change the form of that part gradually, by transforming cash balances and money-at-interest into real wealth. This can be done by bidding up the prices of real wealth—land and houses, shares, etc.—and the rise in prices of real wealth may eventually equilibrate the public's preferences for holding wealth in the various forms that are available, and incidentally facilitate the financing of investment. On the other hand, a rise in interest rates affecting the price of government bonds would increase the public's desire to hold this form of wealth instead of cash balances and real wealth.

The problem of liquidity arises in an even more acute form in the change in the pattern of business firms' assets. During a war, many firms find it impossible to undertake net new investment or even to replace equipment and inventories. They have to accumulate cash balances and government securities equivalent to their disinvestment and their undistributed profits. As business firms they are interested after the war in placing their assets in a form that will maximize their profits. For nearly all of them, this must mean a shift away from

cash and government securities into buildings, equipment, and inventories. The liquidity of business firms, therefore, directly affects their willingness to invest.

There is in any event a deferred demand for capital goods, carried over from the war, comparable to the deferred demand for consumer goods, and this is likely further to strengthen the inducement to invest. Wartime destruction and structural changes in the economy are also likely to add to the need for new investment. The resulting very great demand for investment is still a major factor in the inflationary pressure in a number of countries; and even though the tendency toward excessive consumption expenditure may have been halted, there may be continued difficulty in limiting investment.

Excess private wealth and excess liquidity together constitute the problem of latent inflation. So long as this latent inflation exists, the removal of price and wage controls, rationing, and allocations is impossible without a consequent rise in prices. On the other hand, as time goes on, it becomes increasingly difficult to maintain these controls. After a decade of denial, public support of controls becomes increasingly unwilling, even among the best disciplined peoples. Administration of controls is more onerous and more arbitrary, as changes in the economic structure make the application of simple devices (e. g., price freezes, base periods) less suitable to the new conditions. It may be accepted that in most countries any reasonable measures for dealing with latent inflation would be welcomed by both people and governments. There are, however, likely to be great differences between the attitudes which in different countries determine the measures regarded as reasonable for this purpose.

### Conditions for Dealing with Latent Inflation

What can be done to solve the problem of latent inflation? As a prelude to any effective policy, a country with considerable latent inflation must first take steps to ensure that no additional inflation is currently generated. Even if a moderate rise in prices is not regarded as a great evil, an inflation spiral would have serious economic and social effects. The government must be sure that its budget, including the budget of state enterprises, does not show a deficit which, added to new investment, would exceed the savings of the public at constant prices. At the same time, increases in income which are not associated with corresponding increases in output must be prevented. The aggregate demand for goods and services for consumption, for investment, and for use by the government must not exceed available supplies. An import surplus may be temporarily useful, but it cannot be re-



garded as a normal substitute for other methods of limiting inflationary forces.

The fact is, of course, that only a few countries in Western Europe have as yet reached the state where additional inflation is no longer being generated. The activation of latent inflation in such countries would, therefore, still be dangerous. For them, the immediate and urgent problem is to bring government outlay and investment to a level appropriate to the available output, so that they will not add to the latent inflation. While the deferred demand for consumption and investment made this difficult immediately after the war, it should be possible four years after the end of the war to bring the generation of additional inflation to a halt.

The deferred demand for consumer goods is for the most part concentrated upon durable goods. It may be assumed that even a prolonged deficiency of nondurable goods will not significantly increase the future demand for these goods, although it may temporarily affect the desire for certain forms of consumption. The effect of a deficiency in durable consumer goods will be more far-reaching, but this, too, will tend to correct itself as the flow of normal supplies is restored. For example, if the average life of a shirt is four years, and the supply of shirts available to consumers is maintained at the normal replacement level for four years, consumer stocks will be fully replenished at the end of that period. If the life of such durable consumer goods as household equipment is eight years, a normal flow maintained for the same period will replenish consumer stocks. For most textiles and household equipment, deferred consumer demand should therefore disappear in a few years.

The deferred demand for investment is a more complex problem, partly because of its magnitude and partly because of its urgency, if the economy of Europe is to be made self-sustaining. The replacement period for equipment is usually quite long, and even the restoration and maintenance of normal supplies for a considerable time will not of itself make good the deficiency in investment arising from inadequate replacement and expansion during the war. If, for example, the average life of industrial equipment were assumed to be from 15 to 20 years, a constant flow of such supplies at normal levels would be necessary throughout this extended period before the deferred demand would have been satisfied. In the meantime, presumably, the economy would have to get along with over-age equipment, although the effect of this deficiency in quality would steadily diminish as normal replacement continued.

The process of making good the deficiency in investment by means of a continued supply of normal quantities of new investment goods

would under ordinary circumstances be so lengthy that the inducement to invest would tend to remain high for quite a long period. In fact, the volume of investment for reconstruction and modernization in Europe since the war has been abnormally large, and much of the deficiency in investment arising from the war has already been made good. The European Recovery Program is providing a large import surplus that will in part meet the needs for investment which still remain, by supplying imported equipment and by releasing domestic resources for investment. If ERP continues for the full period for which it has been planned, the deficiency in industrial and agricultural investment will have been largely met. There will still remain, no doubt, a considerable deficiency in public construction and in housing; but these forms of investment can be controlled with much less difficulty than other forms.

### Activation of Latent Inflation

Once the generation of new inflationary forces has been halted, the government has several alternative courses: it may either permit the latent inflation to become active, it may wipe it out, or it may work it off.

The first alternative means simply removing the controls which have kept spending in check and allowing prices to rise until the real value of cash and government securities has fallen sufficiently to eliminate the pressure on consumption arising from excess private wealth. An active inflation does not, however, reduce the value of real wealth. The value of land and buildings and business property, including common stocks, will presumably rise at approximately the same rate as the price level (except as they are affected by rent, dividend, and similar income controls), so that real wealth in these forms is not reduced. Insofar as private wealth consists of mortgages, preferred stocks, and corporate bonds, the reduction in real wealth consequent on the activation of inflation is offset by the increase in the wealth of the debtors, that is, the owners of mortgaged property and common stockholders. The net reduction in the total real value of private wealth which accompanies active inflation is brought about only by lowering the real value of cash balances and government bonds. The activation of past inflation also changes the composition of the private wealth of the public and business firms by reducing the proportion held in cash balances and government securities—that is to say, it reduces excess liquidity.

Since the real value of private wealth and its liquidity are reduced by activation of past inflation, both the propensity to consume and the

inducement to invest will also be lowered. It must not be assumed, however, that the propensity to consume will be reduced to the levels usually associated with a given level of income and wealth. The inadequacy of the community's stocks of durable consumer goods may be expected for a time to keep the propensity to consume a little above these levels. Similarly, although reduced to some extent by the decrease in liquidity, the inducement to invest will remain above normal levels as long as stocks of equipment and business inventories are inadequate, because of new needs and of insufficient maintenance and investment in earlier periods.

The full activation of latent inflation would diminish the need for controls on consumption, except as an adjunct to balance of payments policy. There might still, however, remain an urgent need to limit some or all forms of investment, including housing. And the need to retain exchange or import restrictions would continue until the current balance of payments had been fully restored on a proper price/exchange rate basis.

If latent inflation were activated after the generation of new inflation had ceased, an increase in money wages commensurate with the rise in prices would be possible, because there would then no longer be any need to check the real demand arising from current income. If workers would be content to accept an adjustment in their money wage rates sufficient to restore and maintain their level of real wages, without attempting to offset the decline in the value of their private wealth, there would be no danger of an inflationary spiral. Prices and wages would rise to the same extent, but they could be maintained at the new level without generating a current demand for goods and services which exceeded available supplies.

Depreciation of a currency, even when it is not the consequence of activation of latent inflation, will have some effects on private wealth and on liquidity not unlike the activation of latent inflation. To the extent that the cost of living rises, the real value of private wealth is reduced; and to the extent that larger cash balances are needed to finance business at the higher level of prices, liquidity is reduced. Nevertheless, it should be noted that when home prices are kept from rising significantly—and this is one indication of a successful policy for making depreciation effective—latent inflation is reduced to only a minor extent by depreciation.

### Wiping Out Latent Inflation

The second alternative which governments might adopt after the generation of new inflation had ceased is to reduce the volume of

private wealth and the degree of liquidity until they are no longer excessive. This could presumably be done by heavy taxation or by a capital levy, the effect of which would be to raise more revenue than the government spends, and to permit repayment of government debt to the banking system and the public. Such measures would reduce the volume of private wealth, particularly in liquid form. Other measures could be taken to reduce excess liquidity without significantly affecting the amount of private wealth, for example, by the forced conversion of cash balances, including deposits. Such counter-liquidity measures (since they lessen the present value of the blocked funds) might indeed affect not only investment but also consumption.

The wiping out of latent inflation by reducing the volume of private wealth is a difficult process. An over-all cash budget surplus enables the government to repay debt. If repayment is made to the banking system, the liquidity of the public is also reduced. A consideration of the magnitudes likely to be involved shows more clearly the limited capacity of a budgetary surplus to wipe out latent inflation. The amount of latent inflation in some countries may run as high as one half or more of one year's national income. A budget surplus, unless it is the result of a capital levy, is not likely to be of the order of more than 3 to 5 per cent of national income. Obviously, a budget surplus of this magnitude, while of the greatest importance in preventing the generation of new inflation, cannot do much toward reducing the amount of excess private wealth. Indeed, if net investment is in excess of the budgetary surplus, the absolute amount of private wealth will not be reduced. It may, however, be reduced relative to present and prospective income, and in becoming less liquid the composition of private wealth will be changed.

A capital levy would, of course, reduce the absolute amount of private wealth. But it would have to be unusually large to eliminate all or most of the latent inflation. Under the assumptions that the amount of private wealth is about four times national income, and that the amount of latent inflation is between four months' and one year's national income, it would take a levy of between 10 and 25 per cent to wipe out the whole latent inflation. To permit smooth adjustment, the collection of the levy would have to be extended over several years. The public might regard the full liability as a reduction in private wealth; but, in practice, a capital levy whose payment is extended for several years is unlikely to achieve any significant reduction in the absolute amount of private wealth.

Considerably more can be done, however, by other means to reduce excess liquidity. A forced loan, represented by nontransferable government securities or the blocking of currency and deposits, would

not reduce the nominal amount of private wealth. It would, however, have immediate effects upon liquidity. Furthermore, by making non-transferable such a considerable portion of the community's wealth, it might affect the psychological attitude toward private wealth and lower the propensity to consume in the same way, if not to the same extent, as if private wealth had been reduced. Even if the effects of such measures on consumption were unimportant, they should tend to limit investment.

One other major factor remains which could help to wipe out latent inflation: an import surplus obtained, for example, through ERP. By adding to the supply of available goods, an import surplus makes it possible to maintain consumption and home investment at higher levels. To the extent that the import surplus increases the supply of consumption goods, both excess private wealth and liquidity are reduced. If it increases only the supply of investment goods, private wealth is unaffected but liquidity is reduced.

It would, however, be a mistake to place too much reliance on an import surplus as an instrument for reducing excess private wealth and liquidity. The ratio of import surplus to national income has in most ERP countries been quite low, in some countries no more than 2 or 3 per cent. If it can be assumed that current intentional savings (including the budget surplus) would otherwise equal net new investment, latent inflation would be reduced by the whole of the import surplus. Given an amount of latent inflation equal to one-half year's national income, the proportionate reduction would obviously not be large. Furthermore, as the import surplus financed by ERP is intended primarily to increase the amount of investment, the consumption side of latent inflation, represented by excess private wealth, would not be much affected.

An import surplus, indeed, is more likely to be helpful in strengthening the economy through additional investment, and thus, by increasing the capacity to produce, to enable latent inflation to be worked off at a later date.

### Working Off Latent Inflation

The working off of latent inflation, the other alternative which remains for consideration, would be the result not of a reduction in the amount of private wealth, but rather of a gradual rise in the income of the public until the amount of private wealth at a given level of prices is not excessive in relation to prevailing and expected income levels. This does not depend on a reduction in the absolute amount of private wealth. As already indicated, the only effective

means for reducing the absolute amount of private wealth are a budgetary surplus and an import surplus. This concept of working off latent inflation will be recognized as identical with that which regards excess private wealth, awaiting expenditure on consumption, and excess liquidity, awaiting outlay on investment, as an insurance against depression.

It is possible to work off latent inflation by maintaining consumption and investment at a higher ratio relative to income than would have been possible without the existence of excess private wealth and excess liquidity. For example, if the maintenance of full employment were to become more difficult as the level of production rises, the existence of latent inflation would increase the aggregate of consumption and investment, and this in turn would bring into use resources which would otherwise be idle. The real income of the country would be higher than would otherwise be compatible with the normal behavior of consumption and investment relative to income and the growth of production. As long as this situation continues, latent inflation can be worked off gradually.

As the amount of private wealth begins to recede to an appropriate level relative to prevailing and expected income levels, the propensity to consume will gradually decline and will finally be restored to normal. In the meantime, of course, the additional investment will reduce the relative liquidity of the community and change the proportion of private wealth held in the form of real goods, compared with cash balances and money at interest.

One other means of working off latent inflation should be mentioned. It is sometimes suggested that, if wage rates could be kept down as productivity increases, latent inflation might be worked off by maintaining a stable price level. Thus, for example, if productivity increases by 5 per cent, prices remain stable, and wage rates do not rise, any increase of consumption made possible by increased output will then be paid for either by the workers keeping down their current savings or using up their excess past savings. The maintenance of prices with expanded production involves a rise in national income, even though wages are kept at their former level. Such a policy, therefore, involves a shift of income from wages to profits and dividends.

Even though workers save less, and may even draw on past savings, private wealth is in such circumstances not reduced. The expenditures of workers (including drawing down past savings) become the receipts of businessmen, and in turn part of business savings or of the savings of recipients of profits and dividends. Less private wealth will be held by workers and more by recipients of profits and dividends, which may mean that some of it passes out of the hands of those who want to



spend and into the hands of those who want to save. In this sense, latent inflation is worked off. Furthermore, to the extent that keeping down wages enables more current output to go to investment, the relative liquidity of the public is further reduced.

The difficulty about such a program is that it requires a great deal of restraint in wage policy. It is a universal experience that full employment brings insistent wage demands. Too much is expected of governments if they are to be asked to keep wage rates stable in the face of increased productivity.

### The Practical Problem of Policy

With these three alternatives before them—the activation of latent inflation, wiping it out, or working it off—governments must choose that combination of policies which will enable the economy to function with a minimum of disturbance to production, distribution, and use of the national income.

Political and social considerations will undoubtedly have to be taken into account. Obviously, every country would like to avoid the activation of inflation, even at the cost of continuing controls for a few years longer. With prices far above the prewar level, the social strain that might result from activating the remaining latent inflation may lead some countries to strengthen controls until the latent inflation can be wiped out or worked off. It should be noted, however, that if current inflation is avoided, the activation of latent inflation need not involve a wage-price spiral and should not result in a diminution of real wage rates.

If countries prefer to wipe out or work off latent inflation rather than to activate it, what likelihood is there that they can succeed? An answer to this question requires an examination of the magnitudes likely to be involved and the feasibility of adopting very strong policies. Where latent inflation amounts to one-year's national income, the prospects for wiping out or working off the excess private wealth would be very dim. On the other hand, where it amounts to one fourth of a year's national income, the problem would be manageable, particularly with the aid of the import surplus. Under such conditions, heavy taxes or a capital levy, and strong measures to reduce liquidity, might wipe out or work off latent inflation in about five years.

The first critical question is the magnitude of the latent inflation as indicated by excess private wealth and excess liquidity. This, however, cannot be determined quantitatively. Too much depends on the extent to which the public will want to maintain the abnormal

savings of the war period. American experience indicates that many people do not. But this cannot be made the basis for a confident judgment on behavior in European countries.

During 1939-47, personal savings in the United Kingdom amounted to £8.2 billion, slightly less than one year's national income at present prices. In the same period, the real value of prewar holdings of cash balances and government securities declined. Under any circumstances, it might have been expected that some intentional savings on a modest scale would occur during those years, and that those savings would subsequently be retained. Furthermore, as a consequence of war destruction, disinvestment, and to some extent liquidation of overseas assets, about £3 billion was shifted from real assets into government bonds and claims, and paid for at a lower level of prices. The increase in private wealth in the United Kingdom since 1938 is probably about £5 billion at 1947 prices, which was equal to nearly 60 per cent of the national income of that year. On the other hand, relatively more savings are now held by people at the lower income levels. Such incalculable elements make it difficult to estimate accurately the amount of latent inflation in the United Kingdom piled up during the war. It was very likely somewhat more than one fourth of a year's national income.

The second critical question is one of political feasibility. Is it possible to impose heavier taxes or a capital levy? Is it possible to continue much longer the controls on consumption, relaxing them gradually as supplies of consumer goods increase? The future distribution of income is likely to involve a greater average propensity to consume, and the extension of state enterprises a greater tendency to invest. Can the public be led to think of its additional savings and greater liquidity as a normal and desirable aspect of the economic system? If not, the pressure on consumption and investment will continue for several years.

The investment problem, associated with excess liquidity, is less difficult to deal with than the consumption problem. It may well be that the immediate danger of too much investment demand as a consequence of excess liquidity is greater than that of too much consumption demand as a consequence of excess private wealth. But difficult as the control of investment undoubtedly is, it is far less so than the control of consumption. The urgent necessity of bringing about a significant improvement in their payments position will compel some countries to take stringent measures to limit investment.

All things considered, there are no grounds for optimism in regard to latent inflation. It is difficult to believe that all or even most of the problem can or will be solved by wiping out or working off excess private wealth and liquidity. Expediency will probably dictate a

compromise by gradually activating the latent inflation with slowly rising prices and wages.

### Conclusion

Disappointment will undoubtedly be widespread if, after ten years of inflation control, latent inflation is permitted to become active and there is a considerable rise in prices. It is not unlikely that some governments will feel they simply cannot accept such a policy. But the prospect of wiping out or working off latent inflation in any moderate period of time is very slight. The continuance of controls on consumption for a minimum of five to ten years and perhaps even longer, which may be necessary to work off latent inflation, is an unpleasant prospect for people to whom the free use of income has already been denied for a decade. It is not unlikely that at some stage public opinion will prefer at least a partial activation of latent inflation to continued submission to extended consumer controls. In the meantime, there is every reason to deal with the latent inflation as far as possible by absorbing it through taxation and by measures to reduce liquidity. At the same time, with increased output it should be possible to work off part of the latent inflation.

Even if it becomes generally recognized that all or most of such inflation cannot be wiped out or worked off, its immediate activation may be unwise. It would be reckless to remove controls that repress spending until there is assurance that the generation of new inflation is definitely ended. The first step, therefore, should be to reduce the gross inflationary forces until it is clear that no new inflation is being generated. At the beginning, some dependence may perhaps be placed for that purpose on the import surplus. But in time, and necessarily in brief time, payments deficits must be eliminated and investment brought down to the normal capacity of the country to save. Until then, inflation controls cannot safely be removed. Furthermore, caution would suggest the continuation of certain controls as an aid to restoring the balance of payments.

At some stage in the near future, governments must face the difficulties presented by latent inflation and recognize that a comprehensive program for dealing with it must be put into effect. Unless such programs are adopted, there can be no great confidence that international payments problems can be solved simply by imposing more rigorous and more extensive controls.

# The Measurement of Inflation

J. Keith Horsefield

THE NATURE and processes of inflation have been discussed extensively in economic literature since the war.<sup>1</sup> In the present paper a technique for analyzing quantitatively the forces making for inflation is described and illustrated. First the terms used and the procedures adopted under assumptions as to the statistics available are discussed; and then the technique is applied to data for Western Europe in the decade 1938-48.

## Methodology

### *Definition of inflation*

An inflationary situation is far easier to recognize than to define. The most easily distinguishable type is one in which prices, and therefore the national income, are rising more or less rapidly because there is an excess of potential demand over the available supply of goods and services. It is, however, possible for an inflation to be in progress without a rise in prices; for example, if prices are controlled so rigidly that the available purchasing power cannot be utilized but is dammed-up. Moreover, a rise of prices is not always a sign of inflation. A decline in output—caused, for example, by a bad harvest—may raise prices of foodstuffs without necessarily causing an inflation; and indirect taxation may have similar results. Again, while inflation implies a change in the relative position of different classes in the community, not every shift in the relative purchasing power of incomes is inflationary. For example, a successful exploitation of monopoly powers by organized labor or by organized employers may shift the proportions of the national income respectively enjoyed by these two classes without any symptoms which can be called inflationary. Taking all these factors into account, inflation may tentatively be defined as implying the existence in an economy of dynamic forces which (a) increase the national money income both in absolute terms and relative to the

<sup>1</sup> This study owes much to this literature, and even more to discussions within the International Monetary Fund which have helped to clarify and refine the concepts used. A technique somewhat similar to the one here used appears to have been first adopted in the United Nations study, "Survey of Current Inflationary and Deflationary Tendencies" (1947.II.5). The statistical data presented in this paper were provided by the staffs of the Western European, British Commonwealth, and Statistics Divisions of the Research Department of the Fund.

preceding value of available real resources (i.e., their value at the prices of the beginning of the period observed), and (b), unless offset by opposite forces, bring about an increase in the real income currently enjoyed by one or more groups in the community at the expense of another group or groups—the effect on either set of groups being either absolute or relative to income.

### *Ex ante, ex post*

The originating cause of an inflation may thus be regarded as an attempt (conscious or unconscious) by some section of a community to improve its real income or wealth at the expense of another section or sections, associated with an increase in the national money income. *Ex ante* (prospectively), this attempt will be seen to be inflationary in the likely event that it is inconsistent with the plans of the remainder of the community. For example, an excess of investment over savings, *ex ante*, will be inflationary because the community does not plan to save as much as businessmen plan to invest. But *ex post* (retrospectively), this inconsistency disappears. In part, there will be an adjustment of the investment which was planned (for example, through an unplanned change in inventories); in part, an adjustment of savings, since once the amount invested has been spent it must be held by someone, and in that someone's hands it is part of *ex post* savings. *Ex post*, therefore, investment has engendered savings of an equal amount. Intentional savings (the savings which would have been revealed by an *ex ante* survey) are anti-inflationary,<sup>2</sup> but unintentional savings are merely the consequence of an inflation. Unfortunately, it is impossible, by observing the constituents of a national income retrospectively, to distinguish between these two. This means that it is impossible in practice to measure the anti-inflationary influence of savings. All that can be done is to try to draw certain inferences on plausible assumptions.

### *Active, repressed, and latent inflation*

A net inflationary pressure (*ceteris paribus*, investment exceeding savings, both *ex ante*) must necessarily produce an inflation, but not necessarily an obvious or active one. Given sufficiently rigid and accepted controls, an inflation may show itself not in rising prices but in the accumulation of cash, bank balances, and other forms of encash-

<sup>2</sup> The terms "inflationary" and "anti-inflationary" (rather than "deflationary") are used to emphasize the antithetical nature of the concepts, and because most of the situations analyzed in the present study exhibit degrees of inflation. It would, of course, be equally correct, and in a depression more meaningful, to call savings "deflationary" and investment "anti-deflationary."

able private wealth in the hands of people who would prefer to use these accumulations for consumption or investment but are prevented from doing so. Such a development has been called in recent economic literature a "suppressed" or "repressed" inflation, as distinct from "active" inflation, in which the resources coming into the hands of the public are all or mainly all spent, with the result that prices are raised. For the process by which the balances are accumulated, the term "repressed inflation," or better "repressed spending," seems quite appropriate—more so than "suppressed," because "suppression" might imply abolition. But a different term seems to be needed for the accumulated results of the repressed spending; viz., the situation in which consumers' liquid assets exceed the proportion of their current income which they would hold if there were no controls on consumption or investment. It is proposed to call the latter situation a "latent inflation." All types of inflation tend to increase business balances (undistributed profits plus unspent depreciation reserves), but repressed spending characteristically adds also to the total of consumers' savings, viewed *ex post*. These savings may collectively be described as "excess liquidity"; they include in particular holdings of cash and bank balances here termed "hoards."

### *Net inflationary forces*

Inflationary forces are those tending to cause an excess of current expenditure over the cost of producing currently available goods. In the government sector, this results from a budget deficit. In the business sector, it may be due to capital formation (including building up of inventories), the drawing-down of reserves to pay dividends or maintenance, or the development of an export surplus. In the private sector, capital formation also arises, though it is by convention restricted to the purchase of houses; dis-saving for consumption purposes may also be significant.

Anti-inflationary forces are those working in the opposite direction, either by curtailing the flow of money or by increasing the supply of goods, e.g., a budget surplus, personal savings, an import surplus, or a reduction of inventories. Any element in the problem can thus be either inflationary or anti-inflationary. It is, however, convenient to be able to use a standard formulation, and the convention is here adopted of regarding all magnitudes capable of measurement as positively or negatively inflationary. It will be shown in the next paragraph that where reasonably adequate investment statistics are available, this procedure leaves only intentional savings or dis-savings (including some intentional changes in undistributed profits) as positive or nega-



tive anti-inflationary elements. Using the positive forms, the net inflationary forces may then be expressed as:

$$(\text{Government Deficit} + \text{Investment} + \text{Export Surplus}) - (\text{Savings})$$

all four elements being taken *ex ante* (i.e., as intended beforehand).

### *Measuring inflationary forces*

Only the first one of these four elements can in fact be directly measured *ex ante* (as planned), but it is possible to approximate a measurement of the *ex ante* values of the second and third by utilizing *ex post* (realized) figures. The procedure adopted below is based on the assumption that the difference between the planned and realized values of the inflationary elements is seldom large enough to be significant. A difference will, of course, exist, since the rise in consumer incomes and/or prices constituting the inflation will have repercussions throughout the economy. But these repercussions will necessarily be delayed until the inflation resulting from these elements has developed; and therefore the changes caused by them will be relatively small, except when a very violent inflation makes a period of a year too long to be meaningful for analysis anyway. Furthermore, the repercussions themselves are not all in the same direction. A price inflation tends to increase the budget deficit by adding to the cost of government purchases, but at the same time improves yields from taxation; a price inflation also reduces an export surplus. Similarly, the effect on business investment may be to decrease it, through depletion of inventories or the frustration of intended capital expansion for lack of labor, etc.; or to increase it, through encouraging business expansion and even the enlargement of inventories if price rises prevent consumers from buying. For these reasons it is believed that to identify realized with intended inflationary elements will not materially invalidate calculations.

The same cannot be said of savings, however. If the realized values of the inflationary elements do not substantially diverge from their planned values during the period of a year, it follows that inflation must alter realized savings to the necessary extent compared with planned savings. This may also be shown empirically; for example, a general effect of inflation is to increase business profit-earnings, and eventually dividends. But because dividends are paid in arrears, the effect during the year in which the inflation takes place is mainly concentrated on business reserves (savings) which temporarily increase. The conclusion is that, for purposes of the present analysis, the realized (*ex post*) value of the inflationary elements can be regarded as an adequately close approximation to their planned (*ex ante*) value; but that this is not true of savings.

Because intentional savings are not measurable and cannot be deduced from realized savings, it becomes necessary to evolve a method for approximating the value of the net inflationary forces, viz.,

(Government Deficit + Investment + Export Surplus) – (Savings)

without relying on the measurement of the fourth term. This method comprises

- (a) settling upon a base year in which neither inflation nor deflation was present, and in which, therefore, planned savings were equal both to realized savings and to the ascertainable total of the inflationary elements;
- (b) discovering an expression for changes in savings as a constant proportion of some other series in the economy (e.g., the national income). This is hereafter called the "savings function."

If condition (a) cannot be fulfilled, a year must be chosen in which inflation (or deflation) was slight, and allowance made for the fact that the inflationary elements will in that year have been greater (smaller) than intentional savings. As regards condition (b), whatever series is adopted as a base for the savings function, the assumption of a constant proportion is necessarily an arbitrary one. It is subject, in particular, to three sources of error, which must be evaluated in the light of the particular circumstances of each area and period studied:

- (i) The pattern of spending and saving in the base year may be influenced by prevailing political or social conditions, e.g., the proportion of economic activity devoted to the production of government services and the composition of imports. These may be abnormal, in the sense of being something to which consumers are not accustomed; in this case savings are likely to be inadequate. Or they may have been a norm from which later years depart, implying that savings in later years will be different from what they would otherwise have been.
- (ii) There may be a long-run tendency in the country toward greater or smaller intentional savings in relation, for example, to the national income. Generally speaking, the cumulative increase of wealth in a country will tend to increase intentional savings faster than the national income. A series for the gross inflationary forces based on an equilibrium year would then overstate subsequent inflationary tendencies.
- (iii) There may be short-run influences on savings arising out of the particular environment studied—e.g., the effects of a war, of abnormally heavy taxation, or of a building boom—which

temporarily increase or (more probably) decrease intentional savings.

Subject to these limitations a value for the net inflationary forces in any given year relative to their value in the base year can be calculated as follows: Let us call the series to which savings are assumed to be proportional the "assumed series," so that the savings in any given year are a constant proportion of the term for that year of the assumed series (the "assumed variable"). In the base year, by hypothesis, the net inflationary factors are nil; therefore the proportion between savings and the assumed variable for that year is equal to the proportion between the inflationary forces and the same term. In the second and subsequent years, the proportion between savings and the current year's assumed variable will remain the same, but the proportion between the inflationary forces and the assumed variable will differ. The difference in any year between the proportion represented by the inflationary forces and that represented by savings may be called the net inflationary pressure for that year. Because the proportion between savings in the second year and the assumed variable for that year is equal to the corresponding proportion for the first year, it will also be equal to the proportion between the inflationary forces in the first year and the first year's assumed variable. Hence, the net inflationary pressure in any year is equal to the inflationary forces for that year divided by the assumed variable for that year *minus* the inflationary forces for the *first* year divided by the first year's assumed variable.<sup>3</sup>

- <sup>3</sup> Let  $F_t$  = inflationary forces in year  $t$   
 $S_t$  = intentional savings in year  $t$   
 $Z_t$  = assumed variable in year  $t$   
 $N_t$  = net inflationary pressure in year  $t$   
 $t = 1$  in the base year

Then condition  $b$  states

$$(1) \quad S_t = cZ_t \quad t = 1, 2 \dots$$

where  $c$  is a constant.

The net inflationary pressure is expressed by

$$(2) \quad N_t = \frac{F_t - S_t}{Z_t} = \frac{F_t}{Z_t} - c, \quad t = 1, 2 \dots$$

using (1).

For  $t = 1$  we have  $N_t = 0$ , or

$$(3) \quad 0 = \frac{F_1}{Z_1} - c.$$

Subtracting (3) from (2), we have

$$(4) \quad N_t = \frac{F_t}{Z_t} - \frac{F_1}{Z_1}.$$

*Alternative savings functions*

The ideal "assumed series"—i.e., the ideal series for the savings function—would be one which moved exactly parallel to intentional savings. In practice, no readily ascertainable series is likely to fulfill this requirement, because intentional savings are subject to psychological and other influences, the effects of which are not shown in any normally compiled economic series. However, apart from abnormal dislocations, there is a fairly stable relationship between intentional savings and the national income at factor cost. Using this as the assumed series, we take one per cent as the constant proportion to be applied to each year's national income. This proportion of each successive term of the series will then represent intentional savings for the corresponding year.<sup>4</sup> This does not imply that intentional savings are expected to *equal* one per cent of the national income; only that every year's savings will be the same proportion of the corresponding year's national income divided by 100.

To take an example, we may suppose that the inflationary forces totaled \$80 million in the base year A, \$110 million in year B, and \$140 million in year C; and that the national income at factor cost was respectively \$1,000 million, \$1,250 million, and \$1,400 million. Then in year B the net inflationary pressure would be measured by  $\frac{\$110}{\$12.5} - \frac{\$80}{\$10} = 8.8 - 8.0 = 0.8$ ; in year C by  $\frac{\$140}{\$14} - \frac{\$80}{\$10} = 10.0 - 8.0 = 2.0$ . Both final figures are, of course, percentages of the national money income.

*Gross inflationary factors*

To show the movement of the inflationary pressure over time, it is sufficient to utilize only the first term of the expression for each year (e.g.,  $\frac{\$80}{\$10}$ ,  $\frac{\$110}{\$12.5}$ ,  $\frac{\$140}{\$14}$ , . . ., etc.), which is equivalent to

$$\frac{100 (\text{Government Deficit} + \text{Investment} + \text{Export Surplus})}{\text{National Income}}$$

This is termed the "gross inflationary factor." If all the elements in the numerator of this expression are correctly defined, they may properly be combined to form a complete synthesis of the (measurable) inflationary forces, as opposed to the (nonmeasurable) anti-inflation-

<sup>4</sup> In the usual notation the series may be written  $Y_a, Y_b \dots$  so that intentional savings will be represented by

$$f(Y_a) = \frac{Y_a}{100}; f(Y_b) = \frac{Y_b}{100} \dots$$

ary forces, i.e., intentional savings (including some changes in undistributed profits). If the gross inflationary factors increase over time, it is assumed that intentional savings will no longer suffice to offset the inflationary activity recorded; and that therefore a net inflationary pressure will be exerted. The limitations of this hypothesis will be considered below after the various concepts introduced above have been defined with greater precision.

### *Gross inflationary quanta*

Unfortunately there are comparatively few countries for which a reliable series for the national income is available. This difficulty is encountered particularly when the technique is applied to relatively undeveloped countries (e.g., Latin America). In some of these, national income estimates have been made for individual years, but their reliability is not always very great, and they scarcely ever include a comprehensive series showing the distribution of expenditure between consumption and investment. An alternative possibility is to approximate the national income by combining indices of production and of monetary turnover; but although such calculations have, in several cases, shown a promising degree of comparability with national income statistics where the latter were available, adequate production data are also lacking for most countries. An entirely different substitute series has, therefore, to be used for less statistically-equipped countries. This is prepared by adjusting an index of the volume of currency and bank deposits for changes in the velocity of circulation of the latter, as measured by the ratio of bank debits or bank clearings to deposits. This series may be called an "index of financial activity." It probably moves nearly parallel to the national money income in most countries with a fairly simple economy, and therefore yields a roughly proportional series by which to measure changes in savings. It has, however, the disadvantage that the net inflationary pressures resulting are not internationally comparable. This follows from the fact that the use of index numbers instead of money flows as denominators for the net inflationary pressures produces a series which is expressed in national currencies instead of in percentages. Thus, if the inflationary forces were as assumed above and the indices of financial activity were 100, 125, 140 . . . , the net inflationary pressures in years B, C, . . . , would be

$$\frac{\$110 \text{ mn.}}{125} - \frac{\$80 \text{ mn.}}{100}, \frac{\$140 \text{ mn.}}{140} - \frac{\$80 \text{ mn.}}{100} \dots, \text{ i.e., } \$80,000, \$200,000. \dots$$

Because it appears undesirable to use the same name for series derived by the use of different denominators, especially as one set is

monetary and the other nonmonetary, this alternative series is called the "gross inflationary quanta." For inter-temporal comparisons within one country, the quanta can be used just like the gross inflationary factors, any increase in the quanta implying an inflation. But for international comparisons, the best that can be done is to express each country's gross inflationary quantum for each year as a percentage of its mean quantum for the period studied. The subsidiary series thus derived give no indication of the relative intensity of the inflationary forces in any two countries at any one time.<sup>5</sup> They do, however, indicate roughly the relative trend over time of the inflationary forces in the different areas; if in one case the index numbers are tending to grow more rapidly than in another, it is probable that inflation is becoming more intense in the former than in the latter.

### *Government deficit*

The government deficit is here taken to mean the excess of expenditure over receipts (other than borrowing) for all taxing authorities. It includes, therefore, the deficit (or surplus) on the national (cash) budget, plus any net outlays by the state for nonprofit investment or reconstruction outside the budget, plus the corresponding deficits and investments of local authorities, plus the net operating deficits (or minus the profits) of state and nationalized industries and monopolies, minus any increase in state-operated funds such as social security reserves. Profit-seeking investment expenditures of state and nationalized enterprises may theoretically be included either with the government deficit or with business investment. However, in view of the different extent to which nationalization of industries and the government monopoly of development outlays has progressed in different countries and at different times, better comparability is achieved if all profit-seeking investment is brought together as "investment" rather than divided between that category and "government deficit"; the former course has been adopted here.

Exceptions to the general definition above are the following: (a) Government expenditures and receipts must exclude the counterpart of grants to or from other countries (e.g., UNRRA and ECA) or of

<sup>5</sup> If the quantum in the first year of the series could be used as the base of the percentages, a comparison of the percentages for two countries would enable the intensity of the inflation to be directly compared, year by year. But it has been found in practice that because of erratic imperfections in the statistics, for the first as well as other years, this procedure sometimes gives nonsense results. By using as a base the mean quantum instead of the quantum for the first year, the effect of these erratic imperfections is substantially reduced, though at the expense of limiting the international comparability of the quanta in the way described in the text.

international loans if exports or imports financed in this way are included in the country's balance of international payments; otherwise their inflationary/deflationary effect will be counted twice. (b) Government expenditures and receipts must similarly exclude capital transfers to or from the private sector, since these do not affect the current flow of income. Examples of (b) are amortization of the public debt, grants to industry for purposes of investment, war damage compensation payments, payments of taxes out of capital (e.g., death duties, capital levy), and refunds of government loans or grants.

### *Indirect budget influences*

It is arguable that the appropriate budget figures are not those of cash receipts or payments but of commitments. For it may be considered that an individual's expenditure is influenced by an unpaid bill for taxes in the same direction, if not as much, as by the actual payment of the tax. Similarly, individuals or businessmen due to receive monies from the government will probably determine their expenditure in much the same way as if the amounts were already received. This point may be important in a country where the government's net balance of unpaid bills changes from year to year at a rapid rate. Very similar considerations arise in connection with death duties and a capital levy. The anti-inflationary influence of such a tax in a given year is rarely equal to the actual amount paid in that year. On the one hand, a once-for-all tax is exceedingly likely to be paid out of savings, even where the amount levied is not so large as to be beyond the capacity of the individual to pay out of income anyway. On the other hand, the imminence of a capital levy, even if it is not yet payable, may have a deterrent effect on spending similar to that engendered by an unpaid income tax bill. In all these cases a penumbra of secondary psychological effects surrounds the direct anti-inflationary influence of taxation, and it is impossible to postulate *a priori* the net influence which will result. The problem can be tackled only by considering the detailed circumstances of each case; if that is impracticable, recourse must be had to rule of thumb.

### *Investment*

An inflationary pressure is exerted by enterprises, whether private or nationalized, when they make a net addition to the current flow of purchasing power. The most important though not the only case is where a business makes a planned investment. More strictly defined, the inflationary force consists in the difference between (i) businessmen's current expenditure and (ii) their current recovery through

prices of the costs (including depreciation and profit-loading) of previous output. In practice, however, information about business activities is not available in this form. The nearest available approximation is usually "net capital formation," derived by combining estimates of (i) gross investment, including new buildings and plant, additions to inventories, and outlays on repairs and replacements, with (ii) an "offset" comprising the gross intake each year into reserves for depreciation, repairs, and replacements. There are discrepancies between different countries' practices as regards the extent to which current upkeep is charged to gross investment instead of to current outlay. These hamper inter-country comparisons of the gross figures, but are not of serious consequence provided the "offset" can be correspondingly calculated. Unfortunately, the latter element is sometimes not directly available and use has to be made of an approximation, such as income tax depreciation allowances, or the assumed economic costs of maintaining capital intact, or even actual expenditures on repairs and replacements.

For the purposes of this study, the concept of net capital formation is defective in two respects even if the correct "offset" figure is available. Within the field of investment, concentration on visible changes may overlook the fact that increases in circulating capital, due to increases in wages or other prices, add to the aggregate costs of work in progress; if so, an estimate for these influences must be added, at any rate in countries where wages and prices have been rising sharply and these influences are therefore important. The increase in wages may be due to pressure from labor to restore real wages, adversely affected, e.g., by a crop shortage and a consequential rise in prices; if so, it will stop when crops are again normal. In any case, the "investment" in additional wage bills is only to a small extent decided upon by the entrepreneur for "investment" motives. It is arguable, therefore, that it should be treated separately. However, as the factor is important only in highly unusual circumstances, this discrimination has been judged unnecessary.

More generally, net capital formation figures fail to cover the inflationary or deflationary influence of the payment, out of reserves, of dividends higher or lower than current earnings. In those cases where the only known "offset" to gross investment is actual expenditure on repairs and maintenance, changes in the size of depreciation reserves are necessarily ignored; in such cases the figure for net capital formation obtained fails to reflect the inflationary or deflationary effects of changes in these reserves. To omit such changes in reserves from the inflationary forces is tantamount to treating them as changes



in savings; however, it is unlikely that the savings function will accurately reflect them, and a source of error is therefore introduced.

So far as individuals are concerned, net capital formation is usually, by convention, limited to increases in the ownership of houses; all other changes in personal indebtedness (whether spending above one's income or the purchase on deferred terms of, e.g., an automobile) must therefore be reckoned as changes in savings.

In some less statistically-advanced countries, the only available clue to the magnitude of domestic investment is the increase in bank advances. These, of course, include a certain amount of personal dis-savings, but exclude business investment from liquid funds or from private lenders; on balance, therefore, they tend to understate business investment. Moreover, they exclude investment financed out of foreign assets, which may be important, especially in the case of direct investments. In such cases the nearest approximation to the desired figures of investment is provided by utilizing the increase in bank advances for the domestic figure and correcting the balance of payments data for capital imports.

#### *Balance of international payments on current account*

Other things being equal, a "favorable" (active) balance of international payments on current account is inflationary because it increases the money income within a country without any simultaneous increase in the goods available there for purchase. Correspondingly, an "unfavorable" (passive) balance is *per se* anti-inflationary, though this effect may of course be offset if the imported goods are used to facilitate an expansion of investment.

The terms "export surplus" and "import surplus" are used for convenience in the present study to indicate an active or a passive balance, respectively. International capital movements are not themselves of inflationary significance. Thus, a dollar loan to Europe influences the inflationary situation in Europe only as and when the additional imports which it permits actually flow into use. It has been seen above<sup>6</sup> that, if some of the imported goods are obtained by a government through grants, loans, or the dissipation of foreign assets or reserves, and the proceeds of their sale at home are appropriated toward reducing the budget deficit, these proceeds appear both as an import and as a government receipt. There is, therefore, a danger of double-counting their deflationary effect. Since the government receipt is equivalent to domestic currency absorbed, the correct course would be to adjust the import surplus by deducting therefrom the value of

<sup>6</sup> Pages 25-26.

these goods as shown in customs figures (which may be artificial). Data for this adjustment, however, are not readily available, whereas the contribution to the government budget of the sale of imports is usually an accessible figure. It is for this reason that this contribution, where it exists, has been deducted from the government receipts. Correspondingly, where a government incurs domestic expenditure on goods sent abroad as a grant or loan and the goods appear among exports, the expenditure has been deducted from the government deficit in order to avoid double-counting the inflationary effect. To enable both cases to be treated similarly, the "import surplus/export surplus" recorded hereafter has been calculated by omitting the offsetting item "donations" provided, in the case of grants, in the Fund's *Balance of Payments Yearbook* (viz., Table I, items 9.3 and 9.5 for the various countries).

Where no direct statistics of the balance of payments are available, the change from year to year in the country's published monetary reserves has to be used instead. Although this is defective, in that it does not cover changes in the reserves of private firms, it has the advantage of eliminating imports due to imports of capital. Where, therefore, the only figures for investment relate to investment that is domestically financed, the change in monetary reserves is in fact a better figure to use than a balance of payments deficit or surplus figure would be. There are possible sources of error left, in that borrowed foreign balances may be hoarded (in which case they are not inflationary) or used as a basis for new bank loans (in which case their inflationary effect will be counted twice); but it is not likely that these will be serious in the kind of economy for which this technique has to be used.

### *National income*

The choice of the national income figure to be used as a divisor is difficult. The normal international standard of comparison is national income at factor cost. But the financial aspect of the problem here considered would seem to suggest as the appropriate figure "private income" (viz., national income at factor cost less government income from property plus transfer incomes), since this is the income from which personal savings are built up; or national income at market prices, since this is the source of business savings (including undistributed profits). On the other hand, if the real aspect is considered, still another conclusion seems to be suggested, for the real resources out of which investment, for example, is undertaken correspond not to national income at factor cost but to total goods and services cur-

rently available for use at home (viz., gross national product plus the import surplus or minus the export surplus). Since some countries in 1946 and 1947 had import surpluses amounting to as much as 15 per cent of the domestically-produced income, compared with 1 per cent or 2 per cent in 1938, the choice of definition will considerably influence the size of the denominator of the gross inflationary factor. It is clear that no universally correct solution of the problem can be found. However, the relation between national income at factor cost and gross national product tends in general to be fairly constant, so that the choice of one or the other—apart, at least, from the abnormal cases just cited—scarcely affects inter-temporal comparisons. Nor does the fact that the denominator will include the incomes created by any inflationary influences, whether or not caught by the numerator.<sup>7</sup> And even the significance of the exclusion of an import surplus from the denominator is in practice less than might appear, since the inclusion of any considerable figure on this account would mean that a similar figure would appear as a negative element in the numerator, substantially lessening the value of the total fraction.<sup>8</sup> In the circumstances, the balance of advantage appears to lie with the choice of an index most generally available, viz., national income at factor cost, although it will be appropriate to consider in special cases whether this does not misleadingly inflate the value of the fraction in postwar years.

## Application to Western Europe, 1938-48

### *Introduction*

In what follows, the attempt is made to calculate the gross inflationary factors for Western European countries for the period 1938-48.

<sup>7</sup> An inflation will to some extent increase the national income in the course of the year in which it develops. A more nearly correct formulation than that given in the text would utilize as the denominator for the gross inflationary factor not the national income of the year for which it is calculated, but the annual rate of national income at the beginning of that year. However, this can in practice only be guessed. A sufficient correction will be made if it is borne in mind that the method actually used tends somewhat to underestimate the size of the gross inflationary factor, especially when inflation is most active.

<sup>8</sup> If the deficit is 8, investment 12, the import surplus 15, and gross national product 100, the gross inflationary factor becomes

$$\frac{100(8 + 12 - 15)}{100} \text{ or } \frac{100(8 + 12 - 15)}{115}$$

according to the denominator selected; the difference (0.65) is unimportant in relation to the inevitable margin of error in the figure for investment. This argument is indeed invalid in the case of an export surplus, where the numerator grows as the denominator shrinks; but in practice export surpluses have been important in the last decade only for the United States and some Latin American countries. And for the latter, the absence of national income statistics precludes, in any event, the use of this particular technique.

For this area, the technique is subject to all the qualifications set out on pages 21-22, but to some extent their effects tend in practice to cancel out.

- (a) The base year, 1938, was chosen more for statistical convenience than because it had any peculiar suitability as an equilibrium year. In fact, 1938 was a somewhat depressed year in Western Europe; for example, recorded unemployment ranged upward from  $2\frac{1}{2}$  times its 1947 level. Intentional savings were, therefore, almost certainly subnormal, which means that the gross inflationary factors for the subsequent years overestimate the actual inflationary pressure.
- (b) The long-run tendency in Western Europe toward increased wealth per head should, other things being equal, increase intentional savings and, therefore, again cause the gross inflationary factor to overestimate the inflationary pressure. On the other hand, the parallel long-run tendency toward greater equality of incomes works in the opposite direction. So, too, may the long-run tendency to expand the area of government activity, if it reduces relatively the sphere in which the consumer has free choice. Any net offset arising is likely to be submerged by the greater intensity of the temporary phenomena next considered.
- (c) The dominant factor in the past ten years in the economy of Western Europe has, of course, been the war, with its accompanying reduction of real incomes, intensified taxation, and accumulation of unsatisfied desires. In some cases there has also been a fear of currency depreciation. All these factors tend to reduce savings, and therefore to make the gross inflationary factors underestimate the actual inflationary pressure.

The net effect of these conflicting influences is not easy to assess quantitatively, but it seems clear that in fact the last-mentioned predominates. Individuals appear, on balance, to have dis-saved in recent years; and apart from the influence of institutional savings (insurance premiums and contributions to social security funds) they would probably have dis-saved even more noticeably. Although actual business hoards (*ex post*) have tended to increase, this has been due mainly to restrictions both on investments and on dividends. It may accordingly be concluded, as a broad general rule, that the gross inflationary factors in Western Europe in recent years tend to underestimate the inflationary forces present.

*National income*

Lack of essential statistics has made it necessary to confine the present study to Belgium, Denmark, France, the Netherlands, Norway, Sweden, and the United Kingdom; for all these countries national income data are available. The figures used are given in Table 1; they are expressed as index numbers (1938=100) in Table 2. The progress recently made by the UN Statistical Office in standardizing the statistics for various countries has considerably facilitated the preparation of these tables. However, there are still some areas in which no figures corresponding to a standard definition are available; and some where no official estimates are available at all. For most of the latter, *ad hoc* guesses have been made; these are indicated in Tables 1 and 2 by being shown in italics. Further details of the computations are given in the Appendix below.

The purpose of the national income figures in this context is, of course, to provide a frame of reference which will permit comparative studies to be made of other magnitudes, expressed as percentages of national income. A small error in the national income assumed will usually make no significant difference in these percentages, and the approximate nature of the estimates used—especially for the war years—is therefore not of very great importance. Nevertheless, even where precise figures for the magnitudes to be compared are available (which is not very often), the uncertainty about the national income figures must introduce an element of doubt into the statistics in the tables. It must, therefore, be re-emphasized that these statistics claim no more than to indicate orders of magnitude.

*Government deficit*

The most important single factor making for inflation in the countries studied has probably been the government deficit. The effects of occupation costs, military expenditures, investment, and reconstruction have been sufficient to dislocate the economic systems, even where they were not superimposed upon current deficits of appreciable size, such as those recorded in France.

For the greater part of Europe, the major factor in the wartime expansion of the national income was the costs of occupation. This is an elastic term, but the broad concept is the sum put at the disposal of the occupying power and spent by it. Inter-country comparisons are difficult because national income and exchange rate figures for the war years are frequently sketchy. Table 3, however, gives such information as is available.

TABLE 1. NATIONAL INCOME AT FACTOR COST <sup>1</sup>

(Billions of national currencies)

Country	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
Belgium .....	65.2	65.2	40	46	50	55	55	110	190	215	244
Denmark .....	6.36	6.92	7.44	8.44	9.49	10.7	12.0	12.0	13.3	14.6	15.8
France (a) .....	355	...	...	...	...	...	...	...	2663	3255	...
(b) .....	355	405	395	348	378	415	418	769	<sup>2</sup>	<sup>2</sup>	5913
Netherlands .....	4.92	5.20	5.30	5.10	4.65	4.20	5.00	...	9.33	11.4	12.7
Norway .....	3.74	4.09	4.34	5.34	5.23	5.33	5.00	4.46	6.99	8.14	8.75
Sweden .....	← 10.6 →		11.4	12.6	14.3	15.3	15.8	16.5	19.4	20.7	22.8
United Kingdom .....	4.76	5.09	6.04	7.01	7.74	8.24	8.38	8.42	8.18	8.89	9.75

<sup>1</sup> Figures in italics are *ad hoc* estimates; certain other figures have been adapted from series differing slightly in content. See notes below and Appendix. In this and following tables dots indicate that data are not available and a dash indicates either that a figure is zero or less than half the final digit shown, or that the item called for does not exist.

<sup>2</sup> Not required.

Sources: Belgium: 1938, 1939, 1941, 1943, 1946, 1947, UN, *National Income Statistics, 1938-1947*, p. 123; 1948, estimate by Prof. Baudhuin.

Denmark, France (a), Netherlands, 1938, 1939, 1946, 1947, 1948, Norway, except 1944, United Kingdom, except 1948: UN, *Monthly Bulletin of Statistics*, July 1949, pp. 4-5.

France: (b) 3<sup>e</sup> *Rapport semestriel*, Commission du Plan, Paris, Annexe 8, p. 119, adjusted.

Netherlands: 1942, UN, *National Income Statistics, 1938-1947*, p. 72, adjusted.

Sweden: 1938-39, 1943-47, UN, *National Income Statistics, 1938-1947*, p. 121; 1948, GNP, at factor cost as given in *Meddelanden från Konjunkturinstitutet*, Serie B:9, deflated (cf. UN, *National Income Statistics, 1938-1947*, pp. 95, 120).

United Kingdom: 1948, *Cmd. 7649*, adjusted to UN standard series.

TABLE 2. INDICES OF NATIONAL MONEY INCOME<sup>1</sup>

(1938 = 100)

Country	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
Belgium .....	100	61	70	77	84	84	169	292	329	377
Denmark .....	109	117	133	149	169	188	188	209	229	248
France (a) .....	...	...	...	...	...	...	...	750	917	...
(b) .....	114	111	98	106	117	118	217	<sup>2</sup>	<sup>2</sup>	1666
Netherlands .....	106	108	103	95	85	102	...	190	232	258
Norway .....	109	116	143	140	142	134	119	163	189	204
Sweden .....	...	107	118	134	144	149	156	182	195	215
United Kingdom ..	109	129	150	165	176	179	180	175	188	209

<sup>1</sup> For notes and sources see Table 1.<sup>2</sup> Not required.

A substantial part of occupation costs represented expenditure in the country by the occupying power; but a further part involved exports of requisitioned supplies, which are not necessarily reflected in the government deficit. Thus, in Belgium, Denmark, and the Netherlands, exports to the occupying power accounted for some 45 to 60 per cent of the total costs of occupation. In Belgium and the Netherlands, and also in Norway, the cost of these was originally recorded as a debt due by the occupying power to the Central Bank, and therefore did not affect the budget, except that the Norwegian Government paid to the Bank slightly over 3 billion kroner in the years 1941 through 1944. Expenditure similar to occupation costs was also incurred after liberation, partly in the form of outlays by the local government for the support of Allied troops. In Norway, 0.7 billion kroner were spent in 1945, constituting the largest part of the total deficit. The sharp inflation in Belgium between October 1944 and December 1945 appears to have been due mainly to a similar cause. In Denmark, expenditure on refugees in 1945 accounted for most of the budget deficit in that year.

Apart from the costs of occupation, the government deficits have varied widely. For instance, in Norway during the later war years there was a small surplus, at least as far as concerned the Government in Norway. In Denmark, the ordinary budget (excluding costs of occupation and refugees) was balanced each year. In France, the corresponding budget deficits during the war were substantially less than

in 1938. In the Netherlands, on the other hand, heavy deficits were recorded each year.

In arriving at figures of government expenditure, a distinction has been attempted between "nonprofit-seeking" investments by governments and government agencies (e.g., roads, schools) and "profit-seeking" investments (e.g., railways). The former have been included in the figures from which Table 4 has been calculated; the latter have been added to the figures for private investment to make Table 6. For Denmark and Norway, no such distinction is feasible, and all public investments are included in Table 4.

Before the inflationary effect of the government deficit can be assessed, numerous adjustments are necessary. In particular, there must be added the net deficit (if any) of public authorities other than the central government (including autonomous social insurance funds), plus that portion of the occupation costs which was originally charged, as an accounting device, to the Central Bank. On the other hand, there must be removed, from both receipts and expenditures, items which do not in fact represent withdrawals from or additions to current incomes. The assumption has been made that none of the follow-

TABLE 3. OCCUPATION COSTS (INCLUDING EXPORTS), 1940-44

Country	Wartime Occupation Costs		Per Cent of National Income (annual average, 1940-44)
	Billions of national currency	Billions of U. S. dollars	
Belgium .....	137	4.1 <sup>1</sup>	54 <sup>2</sup>
Denmark .....	7	1.4 <sup>3</sup>	14
France .....	839	18.7 <sup>4</sup>	43
Netherlands .....	8	3.2 <sup>3</sup>	35 <sup>5</sup>
Norway .....	11	2.4 <sup>3</sup>	42

<sup>1</sup> Based on exchange rate prevailing January-May 1940.

<sup>2</sup> Under the assumption that the clearing debt (64 billion francs) was amassed at a rate proportional to the remainder of the occupation costs, whose time-distribution is known.

<sup>3</sup> At current official exchange rates.

<sup>4</sup> Based on exchange rates prevailing January-June 1940 (costs incurred 1940-43), and June-December 1944 (costs incurred 1944).

<sup>5</sup> Approximation made by assuming an even spread of the total costs over 1940-44.

Sources: Belgium: National Bank of Belgium.

Denmark: Danmarks Nationalbank.

France: *Inventaire Financier*, p. 230.

Netherlands: *Ad hoc* estimate.

Norway: *Vedlegg nr. 11 til Statsbudsjettet, 1945-46.*



TABLE 4. INFLATIONARY FORCES ORIGINATING IN PUBLIC FINANCES  
(Deflationary forces in italics)

Country	1938		1940-45		1946		1947		1948	
	Amount (billions) <sup>1</sup>	Per cent of national income	Average amount (billions) <sup>1</sup>	Per cent of national income	Amount (billions) <sup>1</sup>	Per cent of national income	Amount (billions) <sup>1</sup>	Per cent of national income	Amount (billions) <sup>1</sup>	Per cent of national income
Belgium <sup>2</sup> .....	4.8 <sup>3</sup>	7.4	17.4 <sup>3</sup>	33.4 <sup>4</sup>	3.6	1.9	18.8	8.8	15.8	6.5
Denmark <sup>5</sup> .....	0.05	0.7	1.34 <sup>3</sup>	12.9	<i>0.07</i>	<i>0.5</i>	0.72	4.9	0.11	0.7
France .....	52	14.6	184 <sup>2</sup>	41.7 <sup>2</sup>	469	18.0	231 <sup>2</sup>	7.0 <sup>2</sup>	557	9.0
Netherlands .....	0.13	2.7	2.94 <sup>3</sup>	55.0 <sup>6</sup>	0.78	8.3	0.87	7.6	0.65	5.1
Norway <sup>7</sup> .....	<i>0.01</i>	<i>0.3</i>	1.70	33.8	0.44	6.3	0.66	8.1	0.64	7.3
Sweden <sup>7</sup> .....	0.19	1.7	1.48	10.7	0.23	1.2	0.12	0.6	<i>0.25</i>	<i>1.1</i>
United Kingdom <sup>5</sup> ....	0.31	6.6	2.54	33.5	0.73	8.9	0.35	4.0	<i>0.52</i>	<i>5.3</i>

<sup>1</sup> National currency.

<sup>2</sup> Central government only.

<sup>3</sup> Figures unadjusted except for occupation costs (see p. 35).

<sup>4</sup> See note 2, Table 3.

<sup>5</sup> Data are for fiscal years beginning April 1.

<sup>6</sup> Average 1940-44. See note 5, Table 3.

<sup>7</sup> Data are averages of each two successive fiscal years (July 1 to June 30).

Sources: Belgium: Ministry of Finance.

Denmark: *Danmarks Nationalbudget for Aaret 1948*.

France: 1938, 1946, 1948, *ad hoc* computation covering all public authorities; 1940-45, *Inventaire Financier*, p. 230; (this series is not comparable with the remaining figures, since it relates to central government only, and moreover is incomplete, covering generally only the ordinary and extraordinary budgets; the discrepancy may be as high as 25%); 1947, *Inventaire Financier*, p. 559.

Netherlands: 1938, *Statistiek der Rijks Financiën, 1938*; other years based on *Nota betreffende de Toestand van's Rijks Financiën*, September 1948.

Norway: *Statistisk-Økonomisk Oversikt over Året 1948; Nasjonalbudsjettet, 1949*, p. 146; UN Document E/CN.8/31, Annex 3 (November 9, 1948).

Sweden: *Statistisk Årsbok*.

United Kingdom: 1938, 1946-48, *Cmd. 7649*; 1939-43, *Cmd. 7099*; 1944-45, *Cmd. 7371*.

ing receipts was deflationary: death duties, capital levy (including the U.K. "special contribution"), capital increment tax, war damage duty (when levied postwar), and part of stamp duties (U.K.). It has also been assumed, conversely, that neither of the following items of expenditure was inflationary: redemption of loans, subsidies to colonial governments. Where details of the items in these groups are available, they have been deducted from the gross receipts and expenditures, respectively. It should be noted that while the deductions are often defective for the war years, the increased size of the crude deficit during those years was usually sufficient to reduce to insignificance such minor adjustments, so that their omission is comparatively unimportant. It has also been necessary to exclude from budget receipts (where included therein) the counterpart fund set up under ECA, since the corresponding imports appear in the balance of payments and their deflationary effect is included there. Table 4 shows the budget figures after adjustment.

It will be seen that the inflationary effect of public financial operations reached during the war was a very large percentage of the national income. To some extent this produced a rise of prices, but probably more important was the growth in liquidity. Except in the Netherlands and Norway, the postwar "deficits" do not differ widely from those of 1938. If some part of the capital levy imposed in Denmark, the Netherlands, and Norway, or the corresponding special taxation in the United Kingdom, was paid out of income, the inflationary effect is correspondingly overstated. Against this, in the case of the United Kingdom, must be set the probability that a part of the proceeds of the sale of government surplus stocks was derived from capital funds, and was thus not anti-inflationary.

Important contributions to the deficits have been made throughout the whole period since 1939 by subsidies, especially of food, and military expenditures; and since the end of the war by government investment, primarily in reconstruction. Details of the budgets of the war years are difficult to interpret, but Table 5 analyzes three main elements in the prewar and postwar situation, two of which are on current and one on capital account. Military expenditures, subsidies (including losses on state enterprises), and government investment (including reconstruction and capital transfers to the private sector) go far toward explaining the postwar difficulties of European treasuries. The data in Table 5 (column A) show that after 1945 military expenditures in most countries tended at first to absorb a higher proportion of the budget than prewar. Subsidies and losses on state enterprises (column B) have accounted for substantial and generally increasing fractions of the total postwar budgets. This is indicative of the diffi-

culty of restraining the inflationary spiral—the cost of lessening the pressure for wage increases being an increase in government expenditure, itself *prima facie* inflationary. Investment expenditures by the government, including war damage compensation and other capital

TABLE 5. SPECIAL BUDGETARY EXPENDITURES <sup>1</sup>  
(As percentages of total government expenditures)

Country	1938			1946			1947			1948		
	A	B	C	A	B	C	A	B	C	A	B	C
Belgium <sup>2</sup> .....	10	..	8	11	16	50	8	19	25	6	22	25
Denmark <sup>3</sup> .....	5	..	5	5	3	3	7	4	5	8	6	7
France .....	26	10	9	19	20	25	20	15	23	19	12	20
Netherlands <sup>4</sup> .....	15	11	18	22	8	21	19	12	16	15	13	23
Norway <sup>5</sup> .....	10	10	12	16	18	10	12	25	18	10	28	37
Sweden <sup>6</sup> .....	14	9	39	21	3	37	18	3	34	18	3	42
United Kingdom <sup>7</sup> .....	13	1	1	31	8	11	27	12	11	26	15	21

<sup>1</sup> Series A: Military expenditures.

Series B: Subsidies and losses on state enterprises.

Series C: Government investment and capital transfers to the private sector.

<sup>2</sup> Series C excludes war damage payments.

<sup>3</sup> Data are percentages of all public authorities' expenditures. Series C, 1946-48, includes investments of all public authorities and excludes war damage payments.

<sup>4</sup> Series B, 1946-48, covers subsidies only. Series C represents budget deficits on capital account, plus credits to Netherlands East Indies and other capital transfers.

<sup>5</sup> Data are averages of each two successive fiscal years. Series B includes interest on capital advanced by the Government to state enterprises. Series C includes all public investments plus repayment of government debt plus war damage compensation.

<sup>6</sup> Data are averages of each two successive fiscal years. Series B represents profits on public enterprises less subsidies. Series C represents 75 per cent of public gross investments; for this series, the figure shown for 1938 covers 1938-39.

<sup>7</sup> Data are for fiscal years beginning April 1. Series C represents nonprofit investment by the Government plus capital transfers to the private sector (including war damage compensation).

Sources: As in Table 4, with the following exceptions:

Denmark: *Statistisk Aarbog; Forslag til Finanslov for Finansaaret, 1948-49.*

France: *Ad hoc* computations.

Sweden: *Meddelanden från Konjunkturinstitutet, Serie B: 9.*

transfers to the private sector, plus expansion of nationalized industries (column C), have also heavily weighted recent budgets. To the extent that they overlap with profit-seeking investment they have been omitted in Table 4, and have been included instead in Table 6.

Because of the complexities of government accounting, and the varying nature of the data available, comparability in Table 5 is

TABLE 6. NET PROFIT-SEEKING INVESTMENT <sup>1</sup>

Country	1938		1940-45		1946		1947		1948	
	Amount (billions) <sup>2</sup>	Per cent of national income	Average amount (billions) <sup>2</sup>	Per cent of national income	Amount (billions) <sup>2</sup>	Per cent of national income	Amount (billions) <sup>2</sup>	Per cent of national income	Amount (billions) <sup>2</sup>	Per cent of national income
Belgium <sup>3</sup> .....	...	...	...	...	10.0	5.0	12.0	5.6	21.0	8.6
Denmark <sup>4</sup> .....	0.44	6.9	0.06	0.4	0.95	7.1	0.65	4.5	0.92	5.9
France <sup>5</sup> .....	16	4.5	...	...	600	22.0	750	23.0	1250	21.0
Netherlands .....	0.60	12.2	...	...	1.20	13.0	1.75	15.4	2.00	15.7
Norway <sup>4</sup> .....	0.50 <sup>6</sup>	13.4 <sup>6</sup>	...	...	0.97	13.9	1.58	19.4	1.47	16.8
Sweden <sup>7</sup> .....	2.00 <sup>8</sup>	16.0 <sup>8</sup>	3.00 <sup>9</sup>	17.0 <sup>9</sup>	4.00	20.0	5.00	24.0	5.00	22.0
United Kingdom ....	0.30	6.3	0.26	3.4	0.54	6.6	1.21	13.6	1.50	15.3

<sup>1</sup> Figures in italics are disinvestments.

<sup>2</sup> National currency.

<sup>3</sup> Gross investment figure deflated by deducting each year 9 per cent of national income at factor cost (cf. depreciation element in U.K. 1946, 8.9 per cent, and 1947, 8.8 per cent of national income).

<sup>4</sup> Excludes *all* public investments.

<sup>5</sup> Includes *ad hoc* estimates of the effect of wage increases on working capital: viz., 1946, 160 (6%); 1947, 180 (5%); 1948, 375 (6%).

<sup>6</sup> 1939 figure.

<sup>7</sup> Gross investment figures deflated by deducting each year 10 per cent of national income, as recommended by UN, *National Income Statistics, 1938-1947*, pp. 95, 121. These figures still seem too high, but the relationship between 1938-39 and later years is presumably consistent.

<sup>8</sup> 1938-39 figure.

<sup>9</sup> 1943-45 figure.

Sources: Belgium: Ministry of Economic Coordination.

Denmark: *Statistiske Meddelelser*, 4 Raekke 129 bind, 5 Hefte; *Danmarks Nationalbudget for Aaret 1948*; Ministry of Finance, Statistical Appendix.

France: *Ad hoc* estimate based on 2<sup>e</sup> *Rapport semestriel*, Commission du Plan, Paris, p. 75, Table II C; *ECA (Paris Mission) Report on France*, Tables 120 to 124.

Netherlands: 1938, 1948, *ad hoc* estimates; 1946, 1947 based on *Statistisch Bulletin van het Centraal Bureau voor de Statistiek*, March 24, 1949.

Norway: *Nasjonalbudsjettet* (annually).

Sweden: 1938-39, 1943 through 1947, UN, *National Income Statistics, 1938-47*, p. 121; 1948, *Meddelanden från Konjunkturinstitutet*, Serie B: 9.

United Kingdom: As in Table 4.

considerably less between countries than over time in each country separately. The investment figures are particularly heterogeneous, and the significance attaching to the wide disparity between those shown, for example, for Denmark, the Netherlands, and Norway cannot be fully analyzed within the limits of a summary table.

### *Investment*

As stated above, nonprofit investment by public authorities is in most cases included in the figures in Table 4. In Table 6, the attempt has been made to bring together statistics of profit-seeking investments by the government, nationalized industries, business enterprises, and private individuals (housebuilding only). Only Denmark and the United Kingdom, however, have a complete series of investment figures since 1937, and for the former all public investments (profit-seeking and otherwise) are grouped together (Table 4). For the remaining countries, partial figures are available. In some cases the data are for gross investment and therefore adjustments to eliminate depreciation and maintenance elements have had to be made; the resulting estimates, summarized in Table 6, are shown in round numbers to avoid any appearance of exactitude. For some countries (notably the United Kingdom) the allowances for depreciation and maintenance, deducted from gross investment, may understate the actual amounts expended in that direction. The figure shown for net investment will then be an overestimate. There is, however, no reason to suppose that the degree of overestimation will change significantly from year to year.

It must be remembered that private investment figures are particularly uncertain. The impression derived from an examination of the data, however, is that activity in this field was, relatively, at a low ebb during the war and in 1945, but that since then there has been a steep upward movement. In most of the countries, private investment in 1946 and 1947 was substantial; in four countries, activity in 1948 was greater than in 1947, and in five countries, 1948 activity exceeded that in 1946. The principal urge in these years has been for reconstruction, including a rebuilding of inventories, although two other forces may be noted. On the one hand, the loss of overseas markets and the growing tendency toward economic nationalism have led in most of the countries to some reorganization of their domestic industries. On the other hand, the loss of overseas investments and their replacement by overseas debts have necessitated the encouragement of export industries. Both forces have inevitably involved increases in investment activity.

*Balance of payments*

A complete analysis of the causes and magnitudes of the export and import surpluses of each country studied would involve a study too detailed to be possible here. In Table 7, a summary of the balances on current account (goods, services, interest, etc.) is presented. The figures for the war years have been adjusted to eliminate the export surpluses due to occupation, since their inflationary effect has been included in Table 4. Credits for the restitution of looted gold have also been removed.

It is apparent at once that the inflationary situation in all the countries studied has been alleviated, in many cases very materially, by postwar import surpluses. The position in the Netherlands and in Norway is particularly striking, the import surplus largely balancing respectively the budget deficits (Table 4) and private investment (Table 6), which in Norway included a good deal of shipping. Even apart from these special cases, however, the dependence of Europe on the Western Hemisphere has afforded substantial relief from the inflationary pressure. In 1946 and 1947, the import surplus added some 7 or 8 per cent to the real income of Belgium (facilitated by a repatriation of capital) without adding simultaneously to its money income. For France, the corresponding figures for 1946, 1947, and 1948 averaged 7 per cent; for the United Kingdom just over and for Denmark just under 4 per cent; for Sweden over 3 per cent. In the Netherlands, the outflow of government capital to the Netherlands East Indies reduced the import surplus by around 200 million guilders a year. The figures shown in Table 7 are the reduced ones; in order to avoid double-counting the inflationary effect, equivalent deductions have been made in Table 4.

Obviously, such import surpluses are highly abnormal and can be maintained only by external aid, by liquidating overseas investments, or by drawing on monetary reserves. The extent to which Europe's import surplus has depended upon external assistance is indicated in Table 8; most, though not quite all, of the amounts shown in columns (2) and (5) represent grants and loans by the United States and Canadian Governments. Columns (3) and (6) show the extent to which Europe's overseas assets have been depleted by sales in the Western Hemisphere. The important fact emerges that a very large proportion of the anti-inflationary effect generated in the balance of payments is essentially temporary, and will in fact weaken Europe's future position. Indeed, as far as loans are concerned, the effect will, of necessity, presently have to be reversed in order to achieve repayment. This factor must be borne in mind in assessing the aggregate result.

TABLE 7. EXPORT AND IMPORT SURPLUSES <sup>1</sup>

Country	1938		1940-45		1946		1947		1948	
	Amount (billions) <sup>2</sup>	Per cent of national income	Average amount (billions) <sup>2</sup>	Per cent of national income	Amount (billions) <sup>2</sup>	Per cent of national income	Amount (billions) <sup>2</sup>	Per cent of national income	Amount (billions) <sup>2</sup>	Per cent of national income
Belgium .....	1.07 <sup>3</sup>	1.5 <sup>4</sup>	...	...	16.1	8.4	16.3	7.6	8.5	3.5
Denmark .....	0.11	1.7	0.25	2.4	0.95	7.1	0.41	2.8	0.27	1.7
France .....	2.5	0.7	...	...	209	7.8	180	5.5	459	7.8
Netherlands .....	0.01	0.3	...	...	1.30	13.9	1.64	14.4	1.15	9.0
Norway .....	0.10	2.6	0.09 <sup>5</sup>	2.2 <sup>5</sup>	0.59	9.6	1.2	16.3	0.85	11.2
Sweden .....	0.10	0.9	0.25	1.5	0.09	0.5	1.4	6.9	0.44	1.9
United Kingdom ....	0.07	1.5	0.74	10.0	0.38	4.6	0.63	7.1	0.12	1.2

<sup>1</sup> Figures in italics indicate import surpluses.

<sup>2</sup> National currency.

<sup>3</sup> 1937 figure.

<sup>4</sup> Assuming national income in 1937 was approximately the same as in 1938.

<sup>5</sup> Excluding earnings of merchant fleet outside Norway.

Sources: For the following countries and years, the data are taken from the Fund's *Balance of Payments Yearbook*, 1938, 1946, 1947: Denmark, 1938, 1946, 1947; France, 1946, 1947 (converted from dollars, at the following rate: 119.30 francs = \$1); Netherlands, 1938, 1946, 1947; Norway, 1938, 1946, 1947; Sweden, 1938.

Other sources used are as follows: Belgium—Ministry of Economic Affairs; Denmark—*Statistisk Aarbog*; France—Ministère de l'Economie Nationale (*Statistique de Commerce Extérieur*); Netherlands—1948 *ad hoc* estimate; Norway—*Statistisk Årbok*, 1948; *Norges Bank Bulletin*, No. 4, 1948; *Nasjonalbudsjettet*, 1949; Sweden—*Statistisk Årsbok*, 1948; *Meddelanden från Konjunkturinstitutet*, Serie B: 9; United Kingdom—as in Table 4.

TABLE 8. NONRECURRING FINANCING OF BALANCE OF PAYMENTS  
WITH THE WESTERN HEMISPHERE

Country (1)	1947			1948		
	Western Hemisphere loans and grants	Liquida- tion of assets	Total as per cent of national income	Western Hemisphere loans and grants	Liquida- tion of assets	Total as per cent of national income
	(Billions of national currencies) (2)	(3)	(4)	(Billions of national currencies) (5)	(6)	(7)
Belgium .....	5.23	1.54	3.1	3.08	1.76	2.0
Denmark .....	0.08	0.12	1.4	0.38	...	2.4
France .....	162	10	5.3	362	44	6.9
Netherlands .....	0.98	0.71	14.8	0.76	0.37	8.8
Norway .....	0.25	0.32	7.0	0.28	0.03	3.6
Sweden .....	—	0.23	1.1	—	0.04	0.2
United Kingdom ..	0.87	0.02	10.0	0.30	0.23 <sup>1</sup>	5.4

<sup>1</sup> Including gold loan of £0.08 billion from South Africa.

Sources: *Ad hoc* compilations.

### Summary

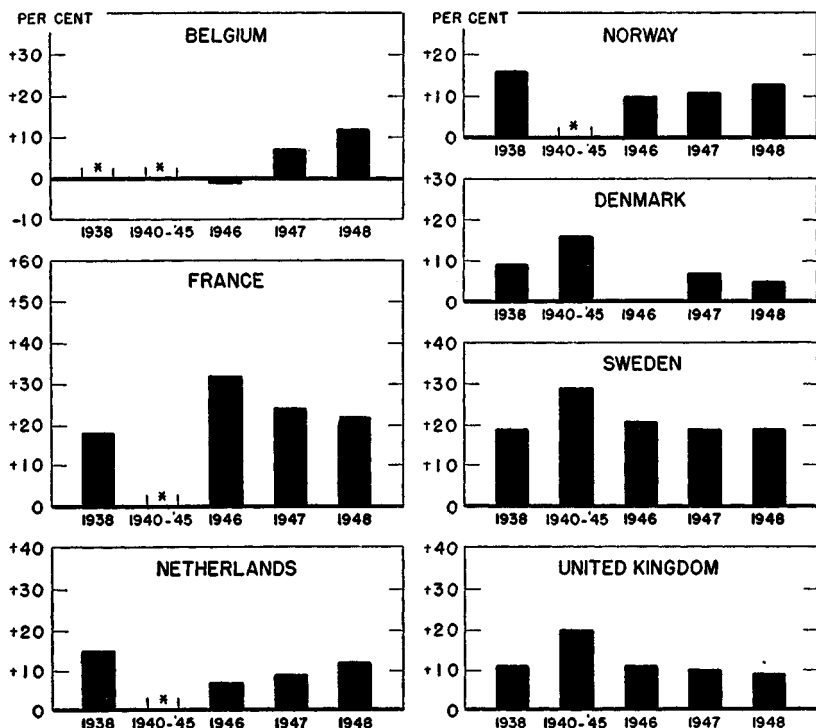
Charts 1 and 2 and Table 9 summarize the gross inflationary factors in each country, insofar as information is available; the approximate nature of much of the data must, however, always be borne in mind. Probably the most surprising thing about the data is the magnitude of some of the figures. Since prices in 1938 were, generally speaking, tending to fall except in France, the sum of the gross inflationary factors elsewhere can scarcely have exceeded intended savings. These savings may accordingly be assumed to have averaged around 15 per cent of national income (less in Denmark and the United Kingdom; more in Sweden). During the postwar period, the gross inflationary factors have in some cases (notably France) been considerably in excess of this average; but in others (e.g., Denmark, Netherlands) they have been appreciably smaller. Other things being equal, this fact would suggest an inflationary tendency in the former cases and a deflationary tendency in the latter.

This, however, is an untenably rough conclusion, for despite the initial assumption of a linear relation between incomes and intentional savings, there is reason to expect that the proportion of the national income intentionally saved has in fact fallen.<sup>9</sup> The deprivations suffered during the war have disposed everyone to seek to restore consumption standards as opportunity has offered itself. To form any

<sup>9</sup> Cf. p. 31.



CHART 1. Total Gross Inflationary Factors as Percentages of National Income



\* Not known

view about the magnitude of this change in savings habits would require a substantial degree of further analysis, including in particular a study of latent inflation, which cannot be undertaken within the limits of this paper. For the moment, all that can be said is that it is impossible to conclude, even from the lowest figures given in Table 9, that there have been net deflationary tendencies acting in any country since the war; but that it seems clear that in certain countries (especially France) a considerable—though possibly diminishing—inflation has persisted.

Finally, it may be noted that the indications of inflationary pressure in the war years, although fragmentary, are sufficient to suggest that the technique adopted is capable of giving a meaningful summary of even so disturbed and abnormal a period. It highlights, for example, the inflationary significance of the failure to cover a higher proportion

CHART 2. Inflationary (+) or Deflationary (−) Factors as Percentages of National Income

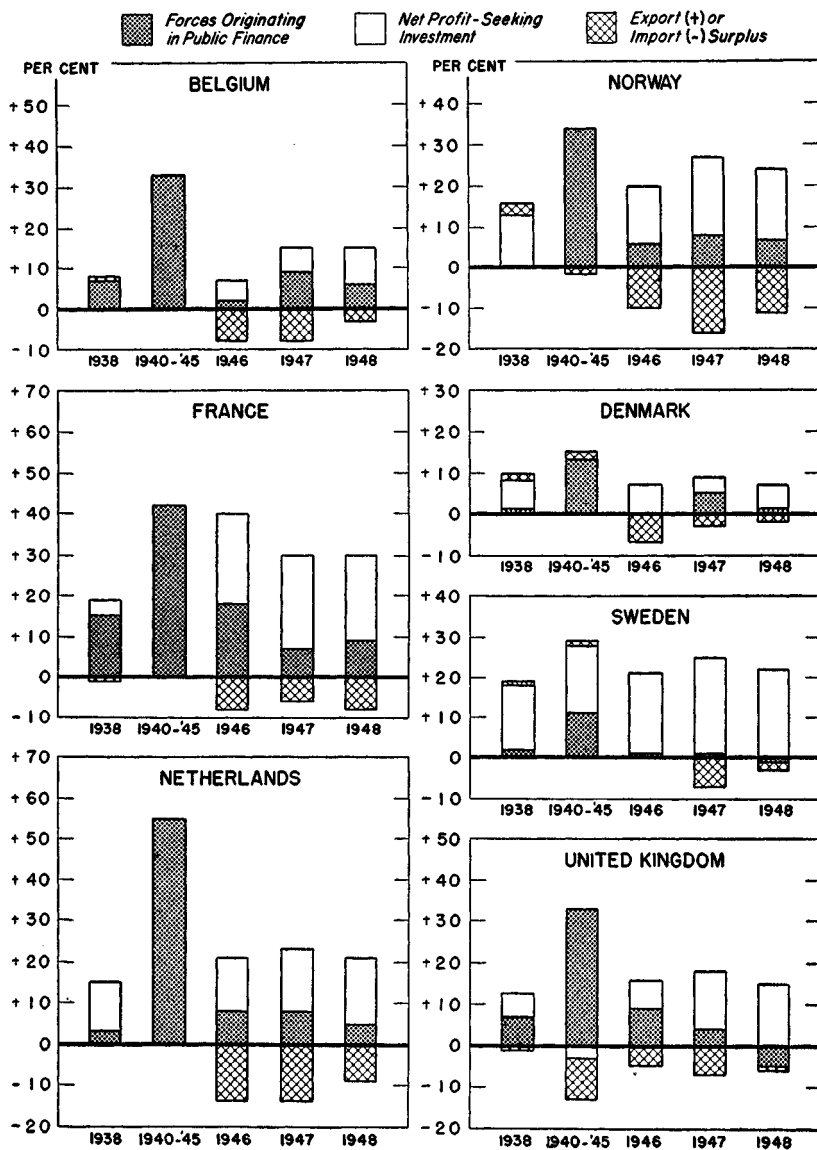


TABLE 9. GROSS INFLATIONARY FACTORS <sup>1</sup>  
(Percentages of national income)

Country	1938				Average 1940-45				1946				1947				1948			
	A	B	C	Total	A	B	C	Total	A	B	C	Total	A	B	C	Total	A	B	C	Total
Belgium .....	+ 7	....	+1	....	+33	....	....	....	+ 2	+ 5	- 8	- 1	+9	+ 6	- 8	+ 7	+6	+ 9	- 3	+12
Denmark .....	+ 1	+ 7	+2	+ 9	+13	+ 0	+ 2	+16	- 0	+ 7	- 7	- 0	+5	+ 4	- 3	+ 7	+1	+ 6	- 2	+ 5
France .....	+15	+ 4	-1	+18	+42	....	....	....	+18	+22	- 8	+32	+7	+23	- 6	+24	+9	+21	- 8	+22
Netherlands .....	+ 3	+12	+0	+15	+55	....	....	....	+ 8	+13	-14	+ 7	+8	+15	-14	+ 9	+5	+16	- 9	+12
Norway .....	- 0	+13	+3	+16	+34	....	- 2	....	+ 6	+14	-10	+10	+8	+19	-16	+11	+7	+17	-11	+13
Sweden .....	+ 2	+16	+1	+19	+11	+17	+ 1	+29	+ 1	+20	- 0	+21	+1	+24	- 7	+19	-1	+22	- 2	+19
United Kingdom..	+ 7	+ 6	-1	+11	+33	- 3	-10	+20	+ 9	+ 7	- 5	+11	+4	+14	- 7	+10	-5	+15	- 1	+ 9

<sup>1</sup> Series A: Inflationary forces originating in public finance (Table 4).

Series B: Net profit-seeking investment (Table 6).

Series C: Export (+) or import (-) surplus (Table 7).

Some totals differ from sums of preceding columns because of rounding.

The expressions "+0, -0" indicate positive and negative quantities arithmetically smaller than 0.5.

For notes and sources, see Tables 4, 6, and 7.

of government expenditures by taxation. The analysis also emphasizes that, even in present circumstances, a substantial proportion of the national income must be saved if inflation is to be avoided; once the transition period of external assistance is ended, this need will be heavily increased.

## APPENDIX

### Origin of National Income Figures in Table 1

*Belgium.* UN figures are available only for 1938, 1939, 1946, and 1947 both in the standard form and in an unrevised version. For 1941, 1943, and 1948, there are estimates by Professor Baudhuin (of which the first two are reproduced by the UN). These appear to be comparable to the unrevised UN figures; the latter have therefore been used in preference to the standardized ones. For the other years it has been necessary to hazard a series of guesses based on known trends in population (through deportations, etc.) and output, but the absence of price indices for the war period has prevented any check being made.

*Denmark.* The standardized UN series has been used for each year.

*France.* Estimates of national income at current prices (series (a) in Table 1) are available only for 1938, 1946, and 1947. For the other years there is an estimate of national income at 1938 market prices; for 1939 through 1945, this has been deflated by the ratio between national income at factor cost and at market prices in 1938, and then inflated by the average of the indices (1938=100) of wages and of wholesale prices for each year. This yields series (b) in Table 1; it is thought that this will approximately produce the effect of translating the 1938 price figures into current prices, and in fact the 1947 figure obtained is practically identical with the direct estimate. For 1948 the figure deflated in the same way has been inflated by the index of wholesale prices only, no index of wages being available. But in 1947 the indices of wages and of wholesale prices were identical, so that it is not thought that the difference between this figure and the rest of the table will be considerable. However, the resulting series can be regarded only as giving the approximate order of magnitude of the national income sought.

*Netherlands.* The standardized UN figures are available only for 1938, 1939, 1946, 1947, and 1948. For 1938 and 1942 independent estimates by Dr. Derksen exist; in Table 1, Dr. Derksen's 1942 figure has been deflated in the proportion which the standardized UN figure for 1938 bears to Dr. Derksen's estimate for that year. For 1940,

1941, and 1943 an *ad hoc* estimate has been made by inflating an index of physical production (1938=100) prepared by the Central Statistical Bureau, by a series composed of wages and wholesale prices weighted 4:1. In view of the controls exercised in the Netherlands, it is believed that this reasonably reflects the adjustment required; at any rate, the 1942 figure so obtained agrees closely with Dr. Derksen's as revised. For 1944 and 1945, however, the figure derived from this formula is obviously too low in comparison with government expenditures. The economic disorganization in the Netherlands in these years makes it impossible to expect to obtain a reliable figure, but for 1944 an estimate has been hazarded upon a consideration of the size of the budget, and the developments in the national income of countries in a similar position in that year.

*Norway.* A complete series is available in the UN standardized form, except for the year 1944. An *ad hoc* estimate has been made for that year, based on converging indications afforded by series of statistics for national income at market prices and for real national income, both of which include 1944.

*Sweden.* The UN publication *National Income Statistics, 1938-1947* gives an adjusted series for 1938-39 (fiscal year) and 1943 through 1947, annually. For Table 1, estimates have been made for the years 1940 through 1942 by inflating the 1938-39 figure by the product of the indices for the cost of living and industrial production, both taken with the average of 1938 and 1939 as a base. Crude as this method is, it gives results within about 3 per cent of the actual figures for each of the years 1943 through 1947, and may therefore be regarded as producing a reasonable approximation for the earlier years. For 1948, an estimate of gross national product is available; this has been deflated by 10 per cent, which is the estimate put forward by the UN Statistical Office of the proportion constituting depreciation and maintenance.

*United Kingdom.* The standardized series is available for 1938 through 1947; an estimate has been made of the corresponding figure for 1948, based on the unstandardized figure given in U. K. statistics.

# Effect of Exchange Depreciation on a Country's Export Price Level

J. J. Polak and T. C. Chang

ONE OF THE main purposes of exchange depreciation in industrial countries is to lower export prices in order to increase the volume of exports. The question is to what extent and under what conditions exchange depreciation will achieve this objective.

When a country depreciates its currency, the gold or foreign currency equivalent of all its prices is reduced in proportion to the reduction in the value of the currency. However, various processes which tend to increase prices in the depreciating country begin to operate immediately after depreciation. These processes will offset partially, or in the limit totally, the effect of the depreciation. The purposes of this paper are to describe these processes of price increases and the factors which determine them, and to find statistical measurements for the extent of the increases and the residual net price fall in terms of gold.

The extent of the original depreciation is used as a yardstick against which to measure the price changes. Accordingly, the *effectiveness*<sup>1</sup> of depreciation is defined as the ratio between the percentage net fall in price (in terms of gold) and the percentage depreciation. If, after depreciation, there is no adjustment whatever of domestic prices in national currency, the effectiveness is equal to unity, or 100 per cent; prices in terms of gold fall by the full amount of depreciation. If, after depreciation, prices in national currency rise by, for instance, 60 per cent of the amount of depreciation, the effectiveness of that depreciation would be measured as approximately<sup>2</sup> 0.4, or 40 per cent. If prices in national currency increase by the full amount of depreciation, the effectiveness would be zero.

The effectiveness of depreciation may be studied in relation to various sets of prices. In general it will be found to be smaller for wholesale prices, particularly if they include many prices of imported commodities, than for retail prices or the cost of living. In this paper, the effectiveness of depreciation is considered with particular refer-

<sup>1</sup> The term "effectiveness" is unambiguous if supply in the depreciating country is fully elastic. If supply is not fully elastic, the term becomes slightly awkward, since the degree of "effectiveness" depends on the elasticity of foreign demand, and a high "effectiveness" may simply indicate a low elasticity of foreign demand.

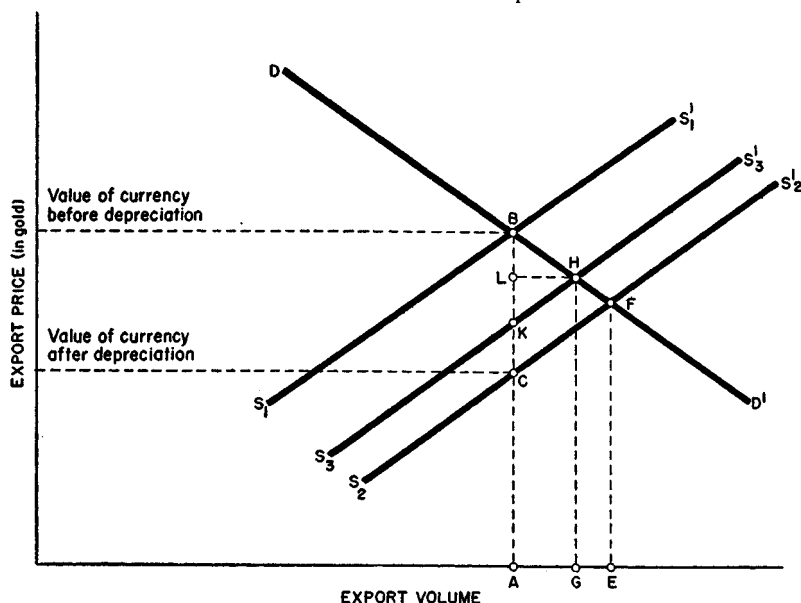
<sup>2</sup> The term "approximately" is necessary since the effectiveness can strictly be defined as the percentage increase in the price of foreign exchange minus the percentage increase in prices only for an infinitely small degree of depreciation.

ence to the question of possible improvement of the balance of payments of the depreciating country. On that account it is measured here in terms of movements in the export price index.<sup>3</sup>

### Description of Adjustment Process

The process of price adjustment after exchange depreciation may be conveniently described by reference to Chart 1. Here the curves  $DD'$  and  $S_1S_1'$  describe respectively the demand for and the supply of

CHART 1. Determination of Export Price



a country's exports prior to depreciation. The export price at the intersection of these two curves equals the distance  $AB$ . By depreciation the country is then assumed to lower the value of its currency in terms of foreign currencies as indicated on the left side of the chart. The percentage depreciation is equal to  $\frac{BC}{BA} \times 100$ . The most immediate effect on export prices is a reduction in the same proportion: as a result of depreciation the export prices in national currency quoted on the day before will, to foreign buyers, appear to have been lowered

<sup>3</sup> Generally, at present, improvements in the balance of payments on the import side are more likely to be sought through import controls than by relying on the effects of relative prices.

in proportion to the depreciation. Prices in terms of gold fall to AC. The supply curve which in the very short run remains unchanged in terms of national currency moves downward to the position  $S_2S_2'$  in terms of gold.

But at point C there is no equilibrium between demand and supply. A new equilibrium is reached at point F where  $DD'$  intersects  $S_2S_2'$  and at a price level in terms of gold, FE, which is higher than CA, but lower than BA. This equilibrium position is temporary, however. The supply curve itself will move upward, for two reasons:

(a) There will be an automatic and prompt increase in the cost in national currency of imported raw materials entering into exports. It may be expected that the domestic price of these imported raw materials will adjust itself almost immediately and fully in proportion to the depreciation. The rise on this account of the supply curve in terms of gold above the level  $S_2S_2'$  is likely to represent only a small fraction of its initial fall, depending on the percentage which the value of imported raw materials represents in the value of commodities exported. For countries with very "open" economies, like those of Western Europe, this percentage may perhaps run as high as 20 per cent; for other countries, it will be much less; and for a country like the United States, it should be almost negligible.

This automatic increase in costs will occur in fully controlled economies, where both the volume and the price of imports are controlled, and in free economies, where both the volume of imports and their price are adjusted to domestic demand conditions. But in an economy where the volume of imports is controlled by a license system, etc., but prices of imported commodities are left free to reflect their scarcity, a rise of the landed cost of imported commodities up to the level of prevailing internal prices will generally tend to reduce the abnormal profits of importers rather than to increase the prices they charge. This situation probably prevails in many Latin American countries which apply import restrictions but no price controls.

(b) The rise in import prices through the effect on the cost of living on the one hand, and improved employment conditions as a result of depreciation on the other hand, will tend to raise wage rates. This factor may lead to a very considerable rise of the supply curve if the depreciating country is at or near full employment, and in particular if the population is strongly inflation-conscious. In the ultimate stage of hyperinflation, wages may actually be fixed day by day by reference to the rate of exchange; the effect will be practically the same if wages are fixed on the basis of a cost of living index and if merchants adjust their price quotations to fluctuations in the foreign exchange market. In such a situation, the cost curve will be raised quite rapidly by wage



and other cost increases to the same extent that it had been lowered by depreciation, and depreciation becomes completely ineffective as a measure to lower prices.

Even without hyperinflation the supply curve will rise considerably if wage rates are fully adjusted for any increase in the cost of living. Any depreciation will then set in motion a chain of adjustments (import prices, cost of living, etc.). Since other incomes, in particular those of rentiers, are not adjusted to price increases, the process of reciprocal adjustment between the cost of living and wage rates will stop short of fully offsetting the effects of depreciation. Nevertheless, the rise of the supply curve in these circumstances will be considerably in excess of what might be expected on the basis of the ratio of imports to national income; and the effectiveness of depreciation in reducing prices will be reduced accordingly.<sup>4</sup>

In the chart a new supply curve  $S_3S_3'$  has been drawn to indicate the increase from the  $S_2S_2'$  level on account of the two causes mentioned. The upward movement can be measured by the distance CK. A new equilibrium will then establish itself at point H and the equilibrium price will be AL. The effectiveness of depreciation may then be indicated as  $\frac{LB}{BC}$ .

Two further observations must be made with respect to the process of adjustment. First, if the depreciating country reduces its imports of raw materials, the world price of these materials in terms of gold may fall somewhat. Local currency prices will then not rise fully in proportion to the extent of the depreciation; but compared to prices paid by other countries, prices in local currency in the depreciating

<sup>4</sup> If the price level in the country (represented by the cost of living) is indicated by  $p$ , the wage level by  $l$ , and import prices by  $p_m$ —all as index numbers with their base at the moment of depreciation—and the ratio of imports to national income by  $\alpha_1$  and of wages to national income by  $\alpha_2$ , the following equations show the changes that will take place as a result of an increase in import prices when wage rates are tied to the cost of living:

$$\begin{aligned} (1) \quad & \Delta p = \alpha_1 \Delta p_m + \alpha_2 \Delta l \\ (2) \quad & \Delta l = \Delta p \end{aligned}$$

Hence:

$$(3) \quad \Delta p = \frac{\alpha_1}{1 - \alpha_2} \Delta p_m$$

Since  $\alpha_2$  would in most countries be of the order of 50 per cent, the wage adjustment would double the original impact of the rise of import prices. If incomes of other classes, e.g., of entrepreneurs, were also adjusted on the basis of the increase in prices, the domestic price level would tend to increase more. To represent the limiting case, where all domestic incomes would be so adjusted, we can write  $\alpha_2 = 1 - \alpha_1$  in (1); this would transform (3) into  $\Delta p = \Delta p_m$ . (Cf. J. J. Polak, "On the Theory of Price Control," *Review of Economic Statistics*, Vol. xxvii, 1945, pp. 10-16.)

country will, after depreciation, be higher exactly in proportion to the extent of the depreciation.

Secondly, depreciation, if effective in improving a country's balance of payments, will exercise a certain deflationary effect abroad, which is the counterpart of its inflationary effect in the depreciating country. The foreign demand curve for the country's exports ( $DD'$ ) may then be expected to move somewhat to the left. Since the deflationary influence is likely to be spread all over the world, this shift would generally not be so large and is disregarded in what follows.

### Elasticities of Foreign Demand and Domestic Supply

It follows from the preceding that the price rise subsequent to depreciation may be considered as due to (a) factors determining the upward movement of the supply curve (the distance  $KC$  in Chart 1), and (b) the slopes of the supply and demand curves. The conditions affecting (a) have already been discussed. Those affecting (b) will now be considered.

Depreciation will be the more effective in lowering export prices, the greater the elasticity of supply of the depreciating country and the smaller the elasticity of foreign demand. The effectiveness will be equal to unity if either the domestic supply for exports is fully elastic or the foreign demand for the country's exports is fully inelastic. Conversely, it will be equal to zero if either the country's supply is wholly inelastic or the foreign demand for the country's products is completely elastic. This will be readily verified by imagining different slopes of the supply and demand curves in Chart 1.<sup>5</sup>

The predominant factors which determine the magnitude of the elasticity of foreign demand are the following:

(a) The composition of exports. The more specialized a country's exports, the less elastic will be the foreign demand since price substitution between its exports and the exports from other countries will tend to be limited.

(b) The share of the country's exports in total world trade of similar commodities. The elasticity of demand for the commodities sold by an individual supplier in a given market tends to vary inversely with the relative size of that supplier.

<sup>5</sup> The point may also be shown algebraically. Apart from any upward movement of the supply curve, the effectiveness of depreciation would be represented by the fraction:

$$\frac{\text{domestic elasticity of supply}}{\text{domestic elasticity of supply} + \text{foreign elasticity of demand}}.$$

This fraction will be between zero and one and will reach these two limits in the four cases indicated in the text.

(c) The number of competing countries depreciating at the same time. This is a special case of (b). If a number of countries depreciate at the same time, the elasticity of demand for the exports of each separately is reduced.

It would follow from the preceding that an industrial country, bulking relatively large in world trade and exporting specialized industrial articles, would experience a relatively large fall in its export prices as a result of depreciation. On the other hand, the smaller and less specialized industrial exporter would tend to meet with a smaller decline. Agricultural countries exporting standardized staples would also tend to experience only a small fall in their export prices as a result of depreciation.

Three factors may also be listed which determine the elasticity of supply:

(a) The nature of the commodities exported. Generally, the elasticity of supply of industrial products, the output of which can be adjusted in the short run, is greater than the elasticity of supply of agricultural products, except when large stocks of the latter are available.

(b) The proportion of exports to total national output of the commodities exported. Where a small proportion of the total production of a commodity is exported, a relatively small rise in price in terms of national currency may free from domestic consumption a quantity which would be large compared with the previous volume of exports of that commodity.

(c) The state of business conditions. Generally speaking in conditions of depression, when there are large stocks and ample unused capacity, the elasticity of supply would be great. In conditions of full employment, on the other hand, the supply curve will be steep and, in the limit, where all commodities that could possibly be exported are in fact exported, the elasticity of supply for export will be zero, and the effectiveness of depreciation accordingly also zero.

In conditions of full employment, which will often be accompanied by a tendency toward inflation, there are thus two factors tending to minimize the effectiveness of depreciation: the tendency of the supply curve to rise by a large proportion of the initial fall caused by depreciation, and the steepness of the supply curve. These two factors work in the same direction, but their effects are not cumulative. The more the supply curve rises, the less increase there is in the quantity exported (compared with the position before depreciation) and therefore the smaller is the movement along the supply curve. If, in the limiting case, the supply curve in terms of gold after depreciation moves up all the way to the position  $S_1S'_1$ , there will be no increase in

the quantity exported and therefore no influence at all of the slope of the supply curve on the export price.

### Statistical Findings

So far the effect of exchange depreciation has been discussed with reference to the absolute price level of one country. Before statistical measurement can be considered, it is necessary to pass to relative prices, viz., the export price level of the country under consideration compared with the export price levels of countries exporting similar commodities. The shift from absolute to relative prices is necessary for (a) logical and (b) statistical reasons.

(a) Exchange depreciation, in order to improve the competitive position of a country, must lower the price level of the country itself not only in absolute terms but also in comparison with the price levels of competing countries. The price fall in the depreciating country may entail a fall in prices in competing countries, so that the relative price fall will be smaller than the absolute price fall of the first country.

(b) Statistically it appears necessary to measure the effectiveness of depreciation by reference to relative rather than absolute prices, because many factors in addition to fluctuations in the exchange rate influence absolute prices and thus obstruct observation of the effects of changes in rates. Since, however, these other factors may be assumed to affect competing countries roughly in the same way, the price ratio between the two countries may be assumed to reflect mainly fluctuations in the relative rate of exchange between them. Among the other factors, mention should be made in particular of fluctuations in world market prices of raw materials and fluctuations in world demand. Both have an influence on the absolute level of export prices of any one country, which often overshadows the influence of moderate fluctuations in the rate of exchange. By calculating the ratio of the export prices of one country to those of another, however, the effect of these general factors is largely eliminated.

Therefore, an endeavor will be made here to measure the effectiveness of depreciation by reference to relative export prices. The effectiveness is defined as the percentage change in the ratio of the export prices of two countries (prices in both being expressed in the same currency) which is associated with a 1 per cent change in their exchange rate.<sup>6</sup>

The effectiveness, so defined, could be estimated for any pair of

<sup>6</sup> Prof. Harris has developed a concept of "price adjustment" to exchange depreciation which he defines in a manner very similar to our definition of the effectiveness of depreciation, viz.,  $\text{Adjustment} = 1 - \text{Effectiveness}$  (Seymour E. Harris, *Exchange Depreciation*, Cambridge, 1936, p. 69).

countries or for every individual country compared with some weighted average of all its competitors, with weights based on the extent to which its products were in competition with those of other countries. In the examples which follow, one country of comparison, rather than a weighted average of many countries, has been taken merely for convenience; and in all the examples the one country is the United States.

A comparison between two countries yields results which may reflect the reactions of either or possibly of both. This point is analyzed in the Appendix. The conclusions of this analysis are that the comparisons of the United Kingdom with the United States and of Sweden with the United States measure primarily the effectiveness of depre-

TABLE 1. EFFECTIVENESS OF DEPRECIATION UNDER VARIOUS SUPPLY CONDITIONS

Supply Conditions	Countries Compared	Period	Coefficient of Effectiveness of Depreciation	Chart Reference
I. Slump . . . .	U. K. —U. S.	1931-33	0.04	2
	Sweden—U. S.	1931-33	0.99	3
	France —U. S. A.	I Q—IV Q 1933	0.95	5
II. Boom . . . .	France —U. S. B.	III Q 1936—II Q 1937	0.35	5
	France —U. S. C.	III Q 1937—IV Q 1938	0.70	5
III. Inflation . .	France —U. S. A.	I Q—IV Q 1919	0.95	6
	B.	I Q 1920—IV Q 1922	0.77	6
	C.	I Q 1923—III Q 1924	0.44	6
	D.	IV Q 1924—III Q 1926	0.33	6
	Poland —U. S.	III Q 1921—II Q 1922	0.40	7
IV. Hyperinflation	Poland —U. S.	III Q 1922—III Q 1923	0	7
	Poland —U. S.	III Q—IV Q 1923	Negative	7

ciation as far as the United States is concerned; in the other cases considered, the effectiveness measured is that of the country which is being compared with the United States (i.e., France and Poland).

It was found in the preceding section that the slope and the "mobility" of the supply curve are greatly affected by the level of activity in the depreciating country; the slope of the foreign demand curve may, on the other hand, be assumed to be relatively constant under varying conditions. Accordingly, it would be expected that conditions of slump, boom, inflation, and hyperinflation would, in the order listed, show decreasing coefficients of effectiveness of depreciation. These expectations are confirmed by the examples described below and summarized in Table 1.

The coefficients indicate only the general order of magnitude of the effectiveness of exchange depreciation and should by no means be

considered as precise measurements because, among other reasons, the number of observations on which they are based is quite small. In particular, the coefficients of effectiveness found for depreciation in slump conditions would appear to be the maximum that might be expected on theoretical grounds.<sup>7</sup> In general, however, the effects shown are in such satisfactory accord with the expectations derived from the theoretical model developed above that we may be reasonably confident of their approximate accuracy.

### *Depreciation in slump conditions*

Chart 2 compares quarterly figures of the ratio of British to American export price indices for manufactured products (both in terms of the same currency) and the sterling-dollar exchange rate (both ratios given as index numbers, 1930=100). The slope of the regression lines fitted to the points in the chart is 0.94. This would indicate that during the period considered a one per cent depreciation of the dollar vis-à-vis sterling would have lowered American prices by 0.94 per cent compared with British export prices, and it might be assumed that the effectiveness as far as a depreciation by the United Kingdom is concerned would have been of the same order of magnitude. In that period, exchange depreciation by either the United Kingdom or the United States would probably have been almost completely effective, because of an inelastic foreign demand combined with a very elastic home supply.

Such statistical estimates as are available on the price elasticity of foreign demand for the exports of both the United States and the United Kingdom in the interwar period give very low figures: for both countries, approximately  $-0.4$ .<sup>8</sup> While these estimates cannot be taken as having a high degree of precision it would seem plausible that the elasticities would be low. Thus, as far as the United Kingdom is concerned:

(a) British exports consist to a large extent of specialized industrial products and the possibilities of substitution for such products are usually limited.

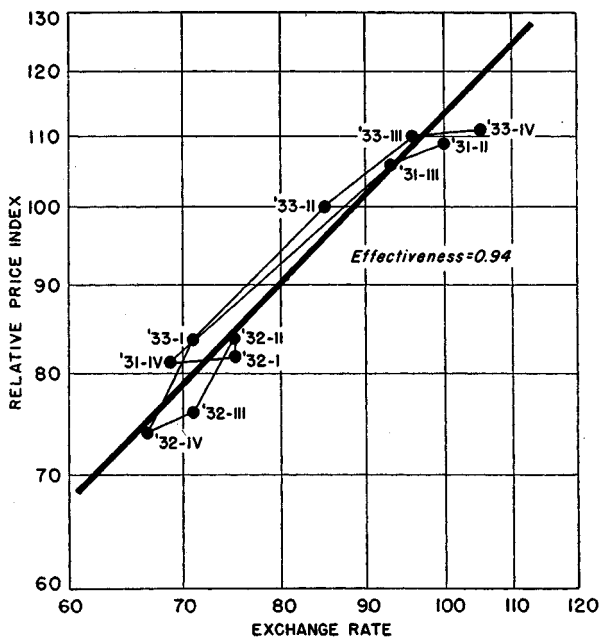
(b) The United Kingdom bulks large in world trade in industrial products and her share in individual markets is particularly high. This

<sup>7</sup> The theoretical maximum would be 1 minus the import component of exported commodities. For the United Kingdom this would be about .80; for the United States, very nearly 1. Alternative values for various assumed values of the coefficients are shown in a table in the Appendix. But the calculations obviously do not have the degree of precision necessary to make anything out of small differences.

<sup>8</sup> See T. C. Chang, "Statistical Note on the World Demand for Exports," *Review of Economics and Statistics*, Vol. xxx (1948), p. 107.

CHART 2. Ratio of British to U. S. Export Price Indices, Compared with Sterling-Dollar Exchange Rate, Second Quarter, 1931—Fourth Quarter, 1933

(Index numbers, 1930 = 100; double logarithmic scale)



"monopolistic" position also tends to make the elasticities of foreign demand for her exports low.

On the supply side in the early thirties there was large-scale unemployment, ample unused capacity, and large stocks of commodities in both the United States and the United Kingdom. In these conditions the supply of commodities for export must have been almost completely elastic.

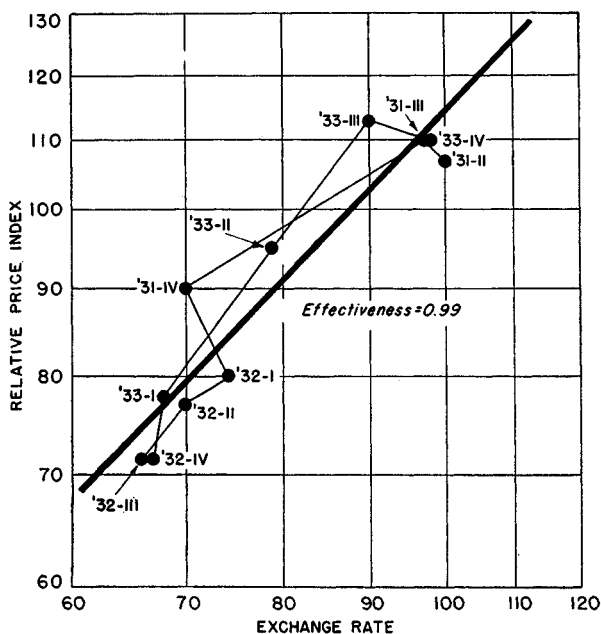
In these same conditions there was also extremely little tendency for the supply curve of the depreciating country to move upward, either absolutely or in relation to that of the country of comparison. When Britain depreciated in 1931, the cost of many of her raw materials did not increase, since the countries from which they were imported, such as the Dominions and the Scandinavian countries, depreciated their currencies at about the same time and sometimes even to a greater extent. British wage rates continued to fall during the period 1931-33. Generally speaking, the money wage rate in the United Kingdom was closely connected with fluctuations in the cost of living and in the level of employment. The cost of living index continued

to decline during this period because of the fall in import prices in terms of sterling. Although the index of employment showed some increase after the depreciation, the actual amount of unemployment remained very large and recovery did not get well under way until the building boom started in 1934. Thus all factors worked in the direction of making the depreciation almost completely effective.

The data on Sweden compared with the United States<sup>9</sup> show a very similar picture, the relationship between percentage changes in

CHART 3. Ratio of Swedish to U. S. Export Price Indices, Compared with Krona-Dollar Exchange Rate, Second Quarter, 1931—Fourth Quarter, 1933

(Index numbers, 1930 = 100; double logarithmic scale)



relative prices and in the exchange rate appearing as high as 0.99 (Chart 3).

The elasticity of foreign demand for Swedish exports with respect to price was probably small; it has been estimated as  $-0.37$  for the interwar period.<sup>10</sup> This low elasticity occurs in spite of the fact that Sweden's share in world markets of manufactured products is small;

<sup>9</sup> The slight fluctuations of the value of the krona to that of sterling, which did not exceed a few per cent during this period while both currencies fell sharply, preclude a significant comparison between Sweden and the United Kingdom.

<sup>10</sup> T. C. Chang, *op. cit.*



it probably reflects the facts that Swedish exports consist partly of very specialized industrial products such as telephone apparatus, ball bearings and roller bearings, etc., for which substitution of competing exports is very limited, and that Sweden's share in certain categories of goods, such as iron ore, pig iron, and iron castings, is quite large.

In Sweden, as in the United Kingdom, depression conditions prevailed in the early thirties, with unemployment and falling wages, which would make any upward shift of the supply curve improbable and tend to make for a very elastic supply curve.

### *Depreciation in boom conditions*

The period 1933-38 for which the French experience has been analyzed may be divided into four segments, reflecting different cyclical positions in France: (a) first quarter 1933—fourth quarter 1933, (b) first quarter 1934—first quarter 1936, (c) second quarter 1936—second quarter 1937, (d) third quarter 1937—fourth quarter 1938. The effectiveness of changes in the French exchange rate in these four periods was quite different. A statistical estimate of the elasticity of foreign demand for French exports for the interwar period sets this elasticity at  $-0.77$ ; <sup>11</sup> no statistical evidence was found to indicate that this elasticity differed in different phases of the trade cycle.

In the absence of quarterly figures for French export prices, quarterly figures of the French wholesale price index have been used. As shown in Chart 4, the changes in the annual figures of the wholesale price index and those of the export price index agree very closely.

*First quarter 1933—fourth quarter 1933: Slump in France.* During this period the United States depreciated while France remained on gold. This case may be treated as one of exchange appreciation by France. As shown in Chart 5, the four quarters of 1933 lie very closely along a straight line on a logarithmic scale (line A) with a slope of about 0.95. This means that the French appreciation raised the relative price level of France by 95 per cent of the extent of the appreciation. The high value for the coefficient is accounted for, as in earlier cases, by the inelastic foreign demand and the elastic supply, both in France and in the United States.

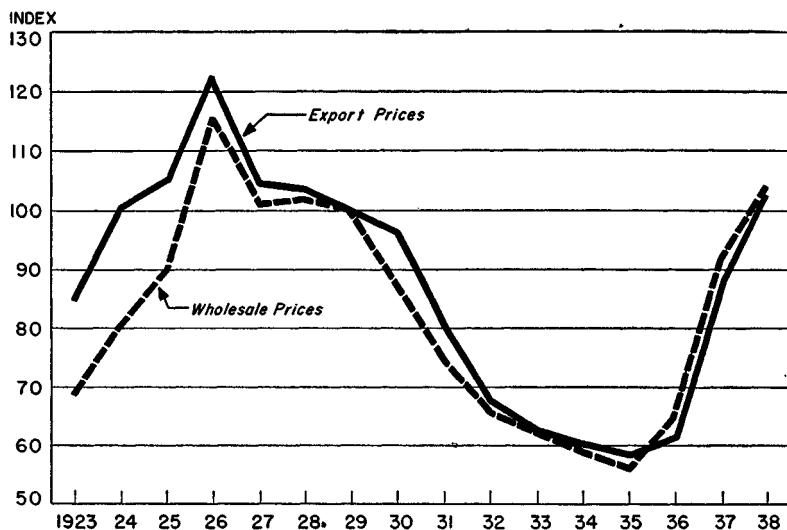
*First quarter 1934—first quarter 1936.* The relative parities remained unchanged during this period but prices in France, compared with prices in the United States, fell steadily until the fourth quarter of 1935. At the beginning of 1934, the dollar was stabilized and from then on United States export prices remained practically unchanged. The changes in relative prices were due to the fall of French export

<sup>11</sup> T. C. Chang, *op. cit.*

prices and were not directly connected with the exchange rates. The rapid fall of French prices was the result of a most drastic deflation policy in France, caused mainly by the deterioration of the French balance of payments and by the unwillingness to go off gold. The deflation policy took the form of a sharp reduction in government expenditures and of direct cuts of salaries, wages, retail prices, interest rates, etc.

By the fourth quarter of 1935, the French farmer became unwilling to stand further deflation and the Government took various steps to

CHART 4. Annual Averages of Wholesale and Export Price Indices in France, 1923-38  
(1929 = 100)

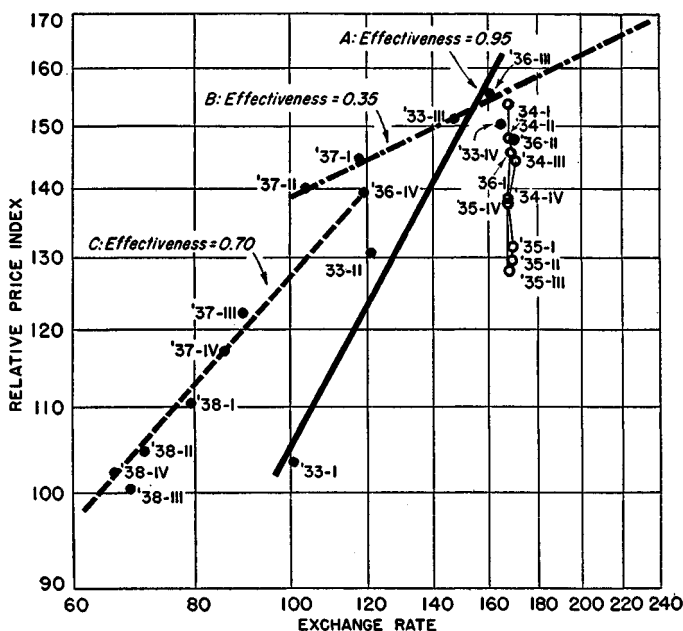


raise farm prices by increasing agricultural subsidies, etc. The net result was a progressive rise in the cost of living and in the prices of agricultural raw materials. Wage rates also showed some tendency to rise. Thus from the fourth quarter of 1935 to the establishment of the Popular Front in June 1936, French prices recovered somewhat.

*Third quarter 1936—fourth quarter 1937: Boom conditions in France.* This was the period of the so-called "Blum experiment." In order to promote rapid recovery of the national economy, four main policies were adopted: (a) devaluation of the franc, (b) raising wage earnings by increasing wage rates and adopting holidays with pay, (c) "reflation," mainly by means of public works, and (d) the forty-hour week.

CHART 5. Ratio of French to U. S. Wholesale Price Indices, Compared with Franc-Dollar Exchange Rate, First Quarter, 1933—Fourth Quarter, 1938

(Index numbers, 1930 = 100; double logarithmic scale)



During this period boom conditions prevailed in France. In the first quarter of 1937, the volume of production was not much above the lowest level of the slump; France was, nevertheless, rapidly approaching a state of "full employment," as the forty-hour week law eliminated at one stroke partial unemployment, and the supply of skilled labor suddenly became scarce. But whether full employment was genuine or artificial, its effect upon the French economy was the same. No further expansion of production was possible. The elasticity of supply of French exports was very low; hence depreciation became relatively ineffective. The upward shift of the supply curve further tended to reduce the effectiveness of depreciation. It has been estimated by Kalecki that labor costs in French industry rose by 58 per cent during the Blum experiment,<sup>12</sup> as a result of increases of the money wage rate and the adoption of holidays with pay. Moreover, depreciation led to an increase of the cost of imported raw materials, estimated by Kalecki to have been 63 per cent.<sup>13</sup>

<sup>12</sup> M. Kalecki, "The Lesson of the Blum Experiment," *Economic Journal*, Vol. 48, p. 26.

<sup>13</sup> *Ibid.*

The slope of line B in Chart 5, which is only 0.35, reflects the supply conditions, mentioned in the preceding paragraph. Owing to these conditions, depreciation in this period led to a reduction of French prices in terms of gold compared with foreign prices by only about one third of the degree of depreciation.

*Third quarter 1937—fourth quarter 1938: Recession in France.* The Blum Government went out of office in June 1937. Its successor, after a renewed depreciation of the franc, reversed the internal economic policy by adopting a policy of budgetary retrenchment. In the autumn of 1937, there was a recession in France. Industrial production declined continuously from November 1937 to August 1938. Wage rates and general price levels showed only very small increases. Broadly speaking, the French economy during this period was in a stage of mild recession, though not in a slump.

These conditions affected the coefficient of the effectiveness of exchange depreciation. As shown by line C in Chart 5, the coefficient for this period was 0.70.

#### *Depreciation during inflation*

In Chart 6 quarterly changes in the ratio of French to United States prices are shown in comparison with the dollar rate of exchange for the French franc from the first quarter of 1919 through the fourth quarter of 1926. Three interesting features may be observed.

First, the points lie closely along four lines. In two cases the shift from one line to the other reflects a sharp fall of the exchange rate (A to B, and B to C), due to a very sudden and substantial fall of the exchange rate caused probably by speculative factors. In the last case (C to D) the shift represents a violent rise of relative prices, which may be interpreted as a rise of internal prices due to domestic inflationary factors to which there was no immediate adjustment of the rate of exchange.

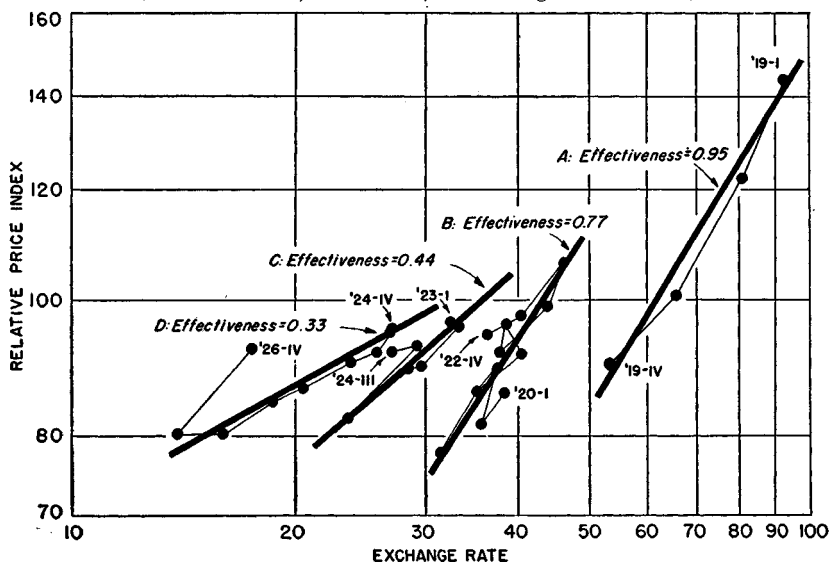
Secondly, as the lines shift to the left their slopes gradually decrease. The slopes of the lines A, B, C, and D are, respectively, 0.95, 0.77, 0.44, and 0.33. This fall is due to the fact that, as inflation in France proceeded, the economy came nearer full employment and, in particular, all members of the economy became more inflation-conscious.<sup>14</sup> Hence the elasticity of supply declined, and the supply curve adjusted itself more rapidly and more fully to increased import prices in terms

<sup>14</sup> The first line should be interpreted mainly as an adjustment of the sale of exchange to the postwar price level after the end of "pegging" of the franc.

of francs. Thus successive rounds of depreciation became less effective in lowering relative prices.

Thirdly, except for the shifts between the various lines, to which we have referred, there is no clear or consistent lag or lead between the changes in relative prices (expressed in dollars) and changes in the exchange rate. This is probably due to a combination of factors. In the earlier period, when the effectiveness of depreciation was still very large, the fall of French prices in terms of dollars was instan-

CHART 6. Ratio of French to U. S. Export Price Indices, Compared with Franc-Dollar Exchange Rate, First Quarter, 1919—Fourth Quarter, 1926  
(Index numbers, 1919 = 100; double logarithmic scale)



taneous and the subsequent upward adjustment of the supply curve was minor. In the later stages, on the other hand, when the significance of these upward adjustments became successively greater, the corrections themselves occurred quite quickly after the initial depreciation, as the population became increasingly inflation-conscious.

### *Depreciation during hyperinflation*

The best known case of hyperinflation is that of Germany in 1922-23. During the later stages of the German inflation, the precipitous fall of the mark was accompanied by a gradual increase in

the German price level in terms of gold.<sup>15</sup> The movements of prices in Germany in 1922-23 were so rapid, however, that statistical observation became particularly difficult. Consequently, various price indices for Germany for that period show quite considerable differences, and quantitative conclusions based on such indices would be particularly liable to error. We prefer, therefore, to use Poland as an example; that country, though affected by hyperinflation, did not experience quite the dizzy speed of Germany.

CHART 7. Ratio of Polish to U. S. Wholesale Price Indices, Compared with Zloty-Dollar Exchange Rate, Third Quarter, 1921—First Quarter, 1924  
(Double logarithmic scale)

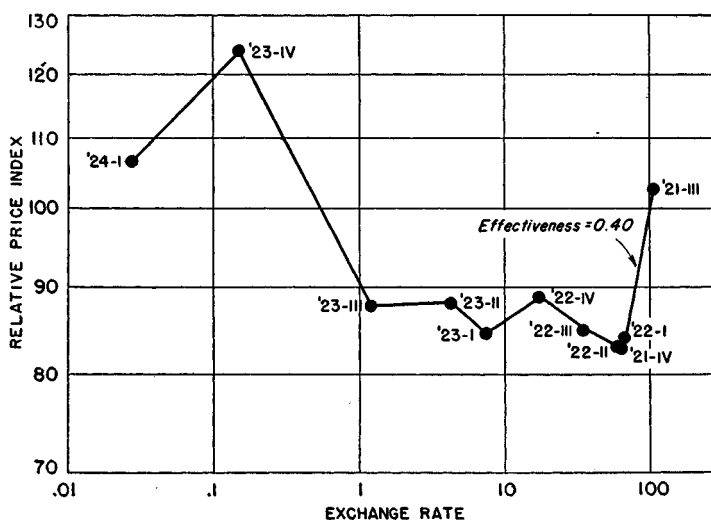


Chart 7<sup>16</sup> shows a coefficient of 0.40 for the relation between a fall in the exchange rate and the decline in relative prices from the third quarter of 1921 to the period early in 1922. Such a coefficient is in accordance with that found for the later stages of the French inflation in 1923-26. Afterwards, however, from the middle of 1922 until the third quarter of 1923, while the exchange rate fell from 36 per cent to 1 per cent of its par established in 1921, relative prices did not

<sup>15</sup> See C. Bresciani-Turroni, *The Economics of Inflation* (London, 1936), pp. 136-45.

<sup>16</sup> The prices compared are the Polish wholesale price index and the U. S. wholesale price index. In view of the extremely wide movement of Polish prices, it is of relatively minor importance which country is chosen for comparison or what series is selected for the country of comparison.

decline further. At the end of 1923 and shortly before the stabilization, which occurred in April 1924, the phenomenon typical of hyperinflation itself was shown. The exchange rate fell in one quarter by about nine tenths. At the same time, relative prices actually increased considerably with the result that in the fourth quarter of 1923 the zloty, according to the statistics used, was overvalued by about 40 per cent.

Thus, during the period from 1921 to the end of 1923 Poland went through three stages of effectiveness of exchange depreciation: a stage of small but positive effectiveness at first; then a stage, which lasted almost two years, of approximately zero effectiveness; and finally a stage of negative effectiveness, coinciding with the presence of hyperinflation.

## APPENDIX

The purpose of this Appendix is to show more precisely the nature of the relationship investigated in the text. For this purpose it is convenient to present in algebraic form the various relations that have been assumed to exist. Exponential equations have been selected as the type probably most suitable to reflect these relations, in particular when large price changes occur.

A number of variables and coefficients are introduced; those with subscript "w" reflect world conditions, those without subscript or accent pertain to country 1, and those without subscript, but with an accent, to country 2:

- $p_w$  world price level in terms of gold (of commodities imported by countries 1 and 2)
- $y_w$  world demand factor (affecting exports of countries 1 and 2)
- $p, p'$  national price levels of export products in countries 1 and 2, respectively
- $x, x'$  export volumes of countries 1 and 2
- $r, r'$  rates of exchange of countries 1 and 2 in units of national currency per unit of gold
- $\beta, \beta'$  total<sup>1</sup> proportional increase of supply curve in response to rise in import prices expressed in national currency
- $\gamma, \gamma'$  income elasticity of demand for exports of the two countries
- $\eta, \eta'$  elasticity of substitution of demand for exports of the two countries (negative magnitudes)
- $\epsilon, \epsilon'$  elasticity of supply of exports in the two countries

<sup>1</sup> Reflecting not only the direct, but also the indirect, effect via wages, i. e., corresponding to the ratio  $\frac{\alpha_1}{1 - \alpha_2}$  in footnote 4, p. 52.

The following relations are assumed to hold. Constant terms are omitted.

### I. Price formation (supply equations)

$$(1) \quad p = (p_w \cdot r)^{\beta} \cdot x^{\frac{1}{\epsilon}}$$

$$(2) \quad p' = (p_w \cdot r')^{\beta'} \cdot x'^{\frac{1}{\epsilon'}}$$

### II. Determination of volume of exports (demand equations)

$$(3) \quad x = \left( \frac{p}{p'} \cdot \frac{r'}{r} \right)^{\eta} \cdot y_w \gamma$$

$$(4) \quad x' = \left( \frac{p'}{p} \cdot \frac{r}{r'} \right)^{\eta'} \cdot y_w \gamma'$$

Combination of (1) and (3), and (2) and (4) yields

$$(5) \quad p = (p_w \cdot r)^{\beta} \cdot \left( \frac{p \cdot r'}{p' \cdot r} \right)^{\frac{\eta}{\epsilon}} \cdot y_w^{\frac{\gamma}{\epsilon}}$$

$$(6) \quad p' = (p_w \cdot r')^{\beta'} \cdot \left( \frac{p'}{p} \cdot \frac{r}{r'} \right)^{\frac{\eta'}{\epsilon'}} \cdot y_w^{\frac{\gamma'}{\epsilon'}}$$

Hence for prices expressed in comparable units, the following are obtained:

$$(5') \quad \frac{p}{r} = p_w^{\beta} \cdot r^{\beta-1} \cdot \left( \frac{p}{p'} \cdot \frac{r'}{r} \right)^{\frac{\eta}{\epsilon}} \cdot y_w^{\frac{\gamma}{\epsilon}}$$

$$(6') \quad \frac{p'}{r'} = p_w^{\beta'} \cdot r'^{\beta'-1} \cdot \left( \frac{p'}{p} \cdot \frac{r}{r'} \right)^{\frac{\eta'}{\epsilon'}} \cdot y_w^{\frac{\gamma'}{\epsilon'}}$$

Division of (5') by (6') gives

$$(7) \quad \frac{p}{p'} \cdot \frac{r'}{r} = p_w^{(\beta-\beta')} \cdot y_w^{\left(\frac{\gamma}{\epsilon} - \frac{\gamma'}{\epsilon'}\right)} \cdot r^{(\beta-1)} \cdot r'^{(1-\beta')} \cdot \left( \frac{p}{p'} \cdot \frac{r'}{r} \right) \left[ \frac{\eta}{\epsilon} + \frac{\eta'}{\epsilon'} \right]$$

Writing  $\xi$  (a positive magnitude) for  $-\left[ \frac{\eta}{\epsilon} + \frac{\eta'}{\epsilon'} \right]$  yields

$$(8) \quad \frac{p}{p'} \cdot \frac{r'}{r} = p_w^{\frac{\beta-\beta'}{1+\xi}} \cdot y_w^{\frac{\frac{\gamma}{\epsilon} - \frac{\gamma'}{\epsilon'}}{1+\xi}} \cdot r^{\frac{\beta-1}{1+\xi}} \cdot r'^{\frac{1-\beta'}{1+\xi}}$$



This form is not yet satisfactory for our purposes since it defines the price ratio  $\frac{p}{p'} \cdot \frac{r'}{r}$  as a function of four variables:  $p_w$ ,  $r$ ,  $r'$ , and  $y_w$ . Certain simplifying assumptions will be necessary to express the price ratio as a function of  $\frac{r}{r'}$ , i. e., the rate of exchange between the two countries. Various simplifications, depending on the nature of the case analyzed, may be legitimate.

(a) The two countries may be such that it is reasonable to assume that  $\gamma$  is approximately equal to  $\gamma'$  and  $\epsilon$  to  $\epsilon'$ . This would reduce the influence of  $y_w$ , if it itself does not fluctuate too strongly, to an element of minor importance.

(b) It may further be permissible to assume that  $\beta$  is very near to  $\beta'$ . In this case the term with  $p_w$  becomes insignificant. Assuming both (a) and (b), equation (8) reduces to

$$(9) \quad \frac{p}{p'} \cdot \frac{r'}{r} = \left( \frac{r}{r'} \right)^{\frac{\beta-1}{1+\zeta}}$$

where  $\frac{1-\beta}{1+\zeta}$  or  $\frac{1-\beta'}{1+\zeta}$  would represent the effectiveness of depreciation for either country.<sup>2</sup>

If, for example,

$$\left. \begin{array}{l} \beta = \beta' = 0.1 \\ \eta = \eta' = -0.5 \\ \epsilon = \epsilon' = 4 \end{array} \right\} \text{and hence } \zeta = 0.25; 1 + \zeta = 1.25$$

then the figure found for the effectiveness would be

$$\frac{1-0.1}{1.25} = 0.72$$

A table of the values for the effectiveness for various values of  $\beta$ ,  $\eta$ , and  $\epsilon$  is given below. The values for the three coefficients are all assumed equal for the two countries.

<sup>2</sup> The sign is reversed, compared with the exponent in (9), because  $r$  is expressed in units of national currency per unit of gold, whereas in the text depreciation is expressed as a lowering of the value of the national currency in terms of gold.

VALUES FOR  $\frac{1-\beta}{1+\zeta}$  AND  $\frac{1-\beta'}{1+\zeta'}$ 

$\epsilon, \epsilon'$	$\eta, \eta'$	$\zeta$	$1+\zeta$	$\beta, \beta'$			
				0.05	0.10	0.15	0.20
				$(1-\beta), (1-\beta')$			
				0.95	0.90	0.85	0.80
1	-0.1	0.2	1.2	0.79	0.75	0.72	0.67
2		0.1	1.1	0.86	0.82	0.77	0.73
5		0.04	1.04	0.91	0.86	0.82	0.77
10		0.02	1.02	0.93	0.88	0.83	0.78
1	-0.5	1	2	0.48	0.45	0.42	0.40
2		0.5	1.5	0.63	0.60	0.57	0.53
5		0.2	1.2	0.79	0.75	0.72	0.67
10		0.1	1.1	0.86	0.82	0.77	0.73
1	-1	2	3	0.32	0.30	0.22	0.27
2		1	2	0.48	0.45	0.42	0.40
5		0.4	1.4	0.71	0.64	0.61	0.57
10		0.2	1.2	0.79	0.75	0.71	0.67
1	-2	4	5	0.19	0.18	0.17	0.16
2		2	3	0.32	0.30	0.28	0.27
5		0.8	1.8	0.56	0.50	0.47	0.44
10		0.4	1.4	0.68	0.64	0.61	0.57

The assumption is now made that condition (a) is rigorously fulfilled, but condition (b) is not. Then (8) may be written as follows:

$$(10) \quad \frac{p}{p'} \cdot \frac{r'}{r} = p_w \frac{\beta-\beta'}{1+\zeta} \cdot r \frac{\beta-1}{1+\zeta} \cdot r' \frac{1-\beta'}{1+\zeta'}$$

This may be arranged in two ways:

$$(10a) \quad \frac{p}{p'} \cdot \frac{r'}{r} = (p_w \cdot r) \frac{\beta-\beta'}{1+\zeta} \cdot \left( \frac{r}{r'} \right)^{\frac{\beta'-1}{1+\zeta}}$$

$$(10b) \quad \frac{p}{p'} \cdot \frac{r'}{r} = (p_w \cdot r') \frac{\beta-\beta'}{1+\zeta} \cdot \left( \frac{r}{r'} \right)^{\frac{\beta-1}{1+\zeta}}$$

The term  $(p_w \cdot r)$  stands, it will be recalled, for the price of imported materials expressed in local currency in country 1. Hence, if this price level is constant, correlation of the price ratio  $\left( \frac{p}{p'} \cdot \frac{r'}{r} \right)$  with  $\frac{r}{r'}$  will yield an estimate of the effectiveness for country 2 (equation 10a); and if  $p_w \cdot r'$  is constant, correlation will yield an estimate of the effectiveness for country 1 (equation 10b).

More generally,  $p_w \cdot r$  may be assumed to fluctuate to some extent with  $\frac{r}{r'}$ . Let

$$(11) \quad p_w \cdot r = \left( \frac{r}{r'} \right)^{\rho}$$

Then it will readily be seen that the exponent found by correlating  $\left(\frac{p}{p'} \cdot \frac{r'}{r}\right)$  with  $\frac{r}{r'}$  will equal  $\frac{\beta'-1}{1+\xi} + \rho \frac{\beta-\beta'}{1+\xi}$ . For  $\rho=0$  and  $\rho=1$  this yields the answers indicated in the preceding paragraph. In general, the exponent found will be between the values for the effectiveness of the two countries provided  $0 < \rho < 1$ , i.e., that absolute import prices in the depreciating country increase, but by less than the extent of depreciation.

In the statistical observations bearing on depreciation in the slump, conditions (a) and (b) would seem to be approximately satisfied. Since import prices remained more nearly constant in the countries which depreciated in 1931-32 than in the United States, the measured effectiveness of depreciation for those years probably refers more nearly to that of the United States than to that of the countries compared with the United States. But in 1933, French import prices, relative to those for the United States, declined, while the number of francs per dollar also declined; the coefficient of effectiveness, therefore, should be read primarily as applying to France.

(c) In other situations, where  $r$  and  $p$  fluctuate sharply over a short period of time, the fluctuations in  $p_w$ ,  $y_w$ , and  $r'$  during the same period may be comparatively negligible. The terms with  $p_w$  and  $y_w$  may then be left out of account even though their coefficients are not assumed to be negligible. In that case, (9) would also hold; but the coefficient found should be interpreted either as a measurement of  $\frac{\beta-1}{1+\xi}$ , if  $p$  and  $r$  fluctuate during the period of observation, or of  $\frac{\beta'-1}{1+\xi}$ , if  $p'$  and  $r'$  fluctuate.

In the observations on depreciation or boom and inflation, conditions (a) and (b) are probably not applicable, but (c) is; in these circumstances it is the effectiveness of depreciation for the depreciating country which is measured.

# Role of the ECA Program in Imports of the Participating Countries and in U. S. Exports

Howard K. Carlson and W. John R. Woodley

AS THE Economic Cooperation Administration entered its twentieth month (November 1949) of a planned four-year existence, the total sum committed to financing imports of ECA participating countries amounted to over \$7 billion. In the early stages of this period effective aid was accelerating, but the original plan for the program as a whole called for a gradual reduction. The appropriation for fiscal 1950 was in fact 25 per cent below that for the first ECA year (April 1948–March 1949). Since indications are that termination of the program must be regarded as inevitable, the possible significance of the diminution and end of the program should be assessed from the point of view of both the imports of the participating countries and the exports of the United States.

Underlying this study is the judgment that ECA aid can be interpreted most intelligently if it is regarded as designed to aid European recovery by financing the planned deficit of the participating countries vis-à-vis the Western Hemisphere. Any such plan must, of course, have implications for particular U. S. exports and the industries producing them, but this is, in general, regarded as a secondary question. Because aid in any form can be regarded as freeing dollar earnings and domestic resources for alternative uses, no attempt is made to judge the extent to which ECA commodities themselves have contributed to economic recovery and elimination of the deficit with the Western Hemisphere.

Certain aspects of closely related problems have been neglected. The most striking is the possible effects of cessation of the program on the balance of payments positions of countries supplying goods which ECA has permitted participating countries to purchase offshore. Similarly, no attempt has been made to analyze in detail the impact of ECA on the structure of world trade or to discover to what extent goods shipped by ECA could have been obtained from other sources. In addition, the effect of the availability of ECA funds in reducing the pressure on European countries to export to the United States has not been explored.

## Problems of the Analysis

### *Analytical difficulties*

Since the main purpose of this paper is to lay a basis for a judgment of the effects of the diminution or end of the ECA program, certain questions arise as to what the historical record implies about the future. The first essential is to explore the various ways in which the problem could be attacked and to indicate the pitfalls involved in interpreting the data. Most of the difficulties are associated with the problem of attempting to estimate the marginal elements in the ECA program, and the effect of a reduction in total dollar availabilities on what is now considered marginal.

The data available, which cover the fourteen months, April 1948–May 1949, could be used in several ways: (1) The percentages of the participating countries' imports of particular commodities financed by ECA could be used as a direct indication of what commodities will disappear from European imports when ECA aid ends; (2) the proportions of ECA-financed shipments included in total imports could indicate to what extent goods will have to be obtained from non-U. S. dollar sources when ECA aid is ended, or, barring this, the increase in dollar deficits which will result; (3) ECA exports in comparison with total U. S. exports could be used to show the importance of ECA in the maintenance of U. S. exports and, possibly, the prospective drop in U. S. exports when the program diminishes or ends; (4) offshore procurement data could be used to show the extent to which ECA has financed the participating countries' deficit with the entire Western Hemisphere, the amounts of ECA-financed goods which have been shipped from offshore sources when they could have been obtained in the United States, and the extent to which supplies obtained from offshore sources may be purchased without dollars when the ECA program ends.

To measure the effects of the cessation or gradual diminution of ECA aid, some assumption must be made with regard to the total dollar supplies of the recipient countries. At the one extreme, it could be assumed that the end of ECA will reduce the U. S. dollar supplies of the participating countries by the amount of ECA aid received; that is, if 1948 is compared with 1953, dollar availabilities in 1953 will be the same as in 1948 except for the loss of ECA aid. At the other extreme, it could be assumed that as ECA aid diminishes the dollar supplies of the recipient countries would be unaffected and that there would be no need to cut imports presently financed by ECA. This could occur in at least two ways: by the expansion of the dollar earnings of the recipient countries, or by the emergence of new forms of aid.

It is doubtful whether either of these extreme assumptions is likely to fit the facts at the end of the ECA program. It seems more reasonable to expect some position between the two extremes, with some expansion of participant countries' dollar earnings, the continuation of a smaller amount of official aid for making U. S. dollar payments, but also a compulsion to cut back dollar imports by a significant amount. It is impossible, however, to judge exactly how much dollar earnings will expand to offset cuts in ECA. Thus, most of the following analysis is based on the assumption that reductions in ECA aid will have equivalent effects on the total dollar supplies of the ERP countries. In any case, the analysis can be adjusted without too much effort to take account of any expansion of dollar earnings.

A problem that arises is whether the importance of ECA aid in financing imports of particular commodities can be measured by the percentages of total imports financed by ECA in the period under review. These percentages in fact do not indicate either what the position would have been without ECA or what will happen as ECA aid diminishes. The end of the program would not necessarily eliminate those goods being financed by ECA, because imports of other commodities might be sacrificed, or, more likely, the relative amounts of imports might vary as total dollar expenditures declined. Similar reasoning applies to what happened in the fourteen-month period under discussion. Hence, percentage comparisons of the extent of ECA aid for particular commodities are misleading as a basis for predicting the impact on the commodity structure of imports of the elimination or reduction of ECA aid.

If the total volume of imports has to be reduced, there is likely to be considerable shifting from one commodity to another. The fact that ECA has financed a large proportion of the imports of any commodity therefore gives little or no indication of the probable volume of imports of that commodity after the end of ECA. The percentage calculations do indicate, however, something about the historical record. They show what goods ECA has financed and thus the importance of ECA aid to both U. S. exporters and the participating countries. In addition, they reveal something about the attitudes guiding the administration of ECA, since ECA shipments may be interpreted merely as evidence that the recipient country regards ECA as willing to finance that particular commodity.

If no predictions of the effects of the end of ECA on the imports of the participant countries can be based on the percentages of imports of particular commodities financed by ECA, can any use be made of a comparison of ECA aid with participating countries' imports? In view of the substitutability of imports, the total amount of ECA aid seems

to be the most relevant fact. This amount could usefully be compared with national income or total imports. A comparison with the former would indicate the importance of ECA in terms of the total supply of goods or services, while a comparison with the latter would show the role of ECA in supplying imports and thus indicate the amount of contraction likely at the end of ECA.

In addition to being useful for historical interpretation, the commodity data also provide some clues to the problems which will face the participating countries at the end of the program. To the extent that ECA has financed supplies of particular commodities, the problem will be to discover alternative nondollar sources of these commodities. Moreover, if currencies are inconvertible, the sources must be such that imports from them can be financed without use of gold or dollar reserves; that is, participating countries must either have a bilateral surplus or be members of a currency system in which supplies of the currency of the new country of origin can be obtained from nondollar earnings. Investigation of the extent to which supplies now financed by ECA can be obtained from such alternative sources would presumably indicate the significance of the effects on imports of the end of the ECA program. Again, however, the commodities financed by ECA are not peculiar in any sense, though with the present pressure to shift imports in order to avoid depletion of exchange reserves, the current maintenance, at least by some countries, of imports not financed by ECA may be taken to indicate that they cannot be shifted. If it is assumed that those goods now being financed from dollar earnings are not available elsewhere, the removal of ECA aid would require that commodities at present financed by ECA be secured from other sources. In any case, however, if any imports from the United States, whether financed by ECA or not, could be shifted to nondollar sources, the impact on imports of the end of ECA would be softened. For those countries where ECA aid supplies an important part of total imports, an analysis of the possibility of substituting goods from nondollar sources for ECA commodities would by itself cover the major part of this problem.

A comparison of ECA shipments with total U. S. exports to the participating countries reveals the importance of ECA in supporting the export of particular commodities or, conversely, in financing recipient countries' imports from the United States. It cannot be assumed, however, that as ECA aid diminishes total U. S. exports will fall by the amount presently financed by ECA. The import demands of the ECA countries are likely to develop a new commodity composition when it is necessary to reduce their total volume, and, in addition, demands for U. S. exports are likely to remain strongest for

those commodities for which alternative sources of supply are least attractive. Thus interpretation of the possible effect of the end of ECA on U. S. exports depends upon a judgment of both the relative essentiality of ECA exports in the total dollar imports of the participating countries, and the prospect of substituting nondollar for dollar sources, assuming the continuance of inconvertibility. The former can be treated as constant only if total dollar supplies of the participant countries do not diminish, while the latter requires detailed investigation for each commodity.

Offshore procurement statistics can be used to assess the extent to which ECA has helped to finance the deficits of participating countries with the Western Hemisphere, other than the United States, and its role in financing particular imports, notably petroleum, from other areas. To the extent that offshore sources have supplied an important part of participating countries' imports, ECA has both supplied dollars to the country of origin and helped participating countries to maintain contact with non-U. S. sources of supply. Data on offshore procurement also show to what extent ECA has financed the export from non-U. S. sources of goods that are available for export from the United States. Since U. S. supplies substantially increased during the fourteen-month period under review, care must be used in interpreting the statistics in this regard. In a certain sense, while offshore purchases are not necessarily of the same commodities that would have been bought if ECA-financed purchases had been confined to the United States, they would indicate to what extent non-U. S. dollar sources have been substituted for U. S. dollar sources under the ECA program. Within limits this is the case, as offshore procurement by participant countries within the sterling area or among the participating countries usually indicates dependence on non-U. S. dollar sources of supply. The statistics are, however, somewhat misleading in this regard, because a large proportion of these purchases took place in the early months of the program. A further difficulty is that a substantial portion of offshore procurement has been from hard currency sources such as Canada, Cuba, and certain Latin American countries. The problem therefore remains of assessing the extent to which these supplies can be obtained from nondollar sources as ECA aid diminishes or ends, or, alternatively, how intractable the balance of payments problems of participating countries vis-à-vis these sources will be.

With these difficulties in mind, total imports of the European countries, total U. S. exports to those countries, and ECA shipments from both the United States and offshore sources will be compared. Comparisons will be made both for the aggregates and for a number of commodity groups. In making the comparisons, however, certain statistical difficulties must be recognized.



*Statistical limitations*

The main statistical difficulties which apply to all the figures presented in the analysis are indicated in this section, while the difficulties peculiar to a particular country are discussed in the individual country sections below.<sup>1</sup> Most of the data used cover the 14 months from April 1948 through May 1949. This raises the question of how representative this period is. In order to determine whether the time period affects the conclusions, the percentage importance of ECA shipments in total imports for various periods was investigated. A comparison of percentages for a 12-month, a 14-month, and a 16-month period shows no significant differences in the proportion of ECA goods to total imports (Table 1). The greatest change introduced by lengthening the

TABLE 1. ECA SHIPMENTS AS A PERCENTAGE OF TOTAL IMPORTS,  
BY COUNTRIES, FOR DIFFERENT PERIODS

Country	April 1948-March 1949 (12 months)	April 1948-May 1949 (14 months)	April 1948-July 1949 (16 months)
United Kingdom .....	11	11	11
France .....	17	18	19
Italy .....	18	18	19
Netherlands .....	12	11	12
Belgium .....	6	7	8
Denmark .....	9	9	10
Norway .....	7	7	7

period surveyed from 14 to 16 months was one percentage point. When the 14-month period is compared with the 12-month period, the greatest change is again one percentage point. Thus, given the margin of error involved in the statistics, use of data for 14 months does not seem to bias the conclusions to any significant extent.

A more important statistical limitation is that imports are shown on a c.i.f. basis, while ECA-paid shipments and U. S. exports are valued f.o.b. Thus, before a comparison is made with European imports, both ECA shipments and U. S. exports should be adjusted upward by the amount of transportation costs. In the discussion below of the total program, ECA-paid shipments are adjusted by 10 per cent when they are compared with European imports, but no adjustment is necessary when they are compared with U. S. exports.

<sup>1</sup> Most of the data have been obtained from ECA monthly reports on paid shipments and the import statistics of the importing countries. Thanks are due to officials of ECA, the Fund's technical representative in Paris, and the Statistics and Western European Divisions of the Research Department of the Fund for aid in obtaining and interpreting these data.

The fact that ECA-paid shipments as reported to ECA lag behind the actual movement of goods introduces a further error. A tentative estimate puts paid shipments at about four fifths of the value of the actual movement of goods during the period under review. This estimate does not apply to individual countries or commodities, but only to the total. Because of this, the data undoubtedly show a downward bias in estimating ECA's importance both in the imports of participant countries and in U. S. exports. The lag does not, however, affect the relation between ECA exports from the United States and those from offshore, or the relative importance of the two sources as suppliers of the imports of participating countries.

Another limitation is associated with the conversion into U. S. dollars of the import data of individual countries. In most cases, the selling rate for U. S. dollars was used, even though this may have involved some upward bias in the total value of imports. But for the three countries which presented the greatest conversion problems—France, Italy, and the Bizone—this difficulty was avoided by obtaining data expressed in U. S. dollars.

Finally, considerable difficulty was encountered in classifying ECA shipments, European imports, and U. S. exports in similar commodity groups. The data for each country are presented as uniformly as possible in this regard, but the divergent categories listed in the original sources made some arbitrary decisions inevitable.

The proportion of ECA-paid shipments included in total imports of, and in U. S. exports to, individual recipient countries are given below in tables accompanying the discussion by countries. In most cases, the commodity groups shown account for some 80 to 100 per cent of the total imports of the individual countries and some 83 to 93 per cent of U. S. exports to those countries. Hence, it seems unlikely that the addition of the excluded data would modify the conclusions reached.

## The Over-all Program

### *Aggregate country data*

Total ECA-financed shipments from April 1948 through May 1949 accounted for 12 per cent of total imports of the participating countries (Table 2).<sup>2</sup> When the countries' imports from the United States alone are considered, ECA shipments accounted for half. If Sweden and Turkey, which received relatively small amounts of ECA aid, are excluded, and Bizone Germany included, ECA aid amounted to 13 per cent of total imports. Furthermore, if 10 per cent is deducted from

<sup>2</sup> The totals and percentages do not include the Bizone and Greece, inasmuch as complete data were not available for them.

TABLE 2. TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS, BY PARTICIPATING COUNTRIES,  
APRIL 1948-MAY 1949 <sup>2</sup>

Country	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments	Offshore	U. S. shipments	Offshore
			From U. S.	Offshore					
Austria .....	543.3	184.0	131.2	51.3	34	24	10	71	28
Belgium-Luxembourg ...	2,222.5	336.7	128.5	35.3	7	6	2	38	11
Denmark .....	946.1	86.3	46.2	36.1	9	5	4	54	42
France .....	3,966.0	790.2	497.0	226.7	18	13	6	63	29
Greece .....	....	235.6	86.6	17.3	..	..	..	37	7
Germany-Bizone .....	1,854.2	....	204.5	62.4	14	11	3	..	..
Iceland .....	76.9	11.5	3.6	1.0	6	5	1	31	9
Eire .....	619.8	55.2	29.4	6.5	6	5	1	53	12
Italy .....	1,825.0	547.3	277.6	53.1	18	15	3	51	10
Netherlands .....	2,277.1	362.5	180.4	66.0	11	8	3	50	18
Norway .....	938.4	110.2	43.6	20.2	7	5	2	40	18
Sweden .....	1,511.1	122.3	2.7	9.6	1	—	1	2	8
Turkey .....	314.7	104.4	1.3	—	—	—	—	1	—
United Kingdom .....	10,175.8	772.2	414.4	713.8	11	4	7	54	92
Total <sup>3</sup> .....	25,416.7	3,482.8	1,755.9	1,219.6	12	7	5	50	35

<sup>1</sup> As measured by U. S. exports to country indicated.

<sup>2</sup> In this and following tables, dots indicate that data are not available and a dash indicates either that a figure is zero or less than half the final digit shown, or that the item called for does not exist.

<sup>3</sup> Bizone and Greece are not included in the totals. Totals may not equal sums of items because of rounding.

total imports to convert them to an f.o.b. basis, and 25 per cent is added to ECA-paid shipments to correct for their lag behind the actual movement of goods, the percentage is raised from 13 to about 18 per cent. If ECA-paid shipments are adjusted upward to represent actual movements of goods, such shipments comprise about 63 per cent of total U. S. exports to recipient countries. The 18 per cent and 63 per cent figures indicate the extent of ECA financing in the 14-month period, and thus show the importance of ECA for the participating countries and the United States. Moreover, the effects of diminished ECA aid can be interpreted directly in terms of the percentage financed by ECA. As 18 per cent is a substantial part of total imports and 63 per cent a substantial part of imports from the United States, diminution and eventual elimination of ECA aid are bound to have significant effects even though the countries reduce their least essential imports. Since ECA aid has, however, varied from less than 1 per cent to 34 per cent of imports of individual countries, ECA has been of differing importance to the participating countries.

Although ECA-paid shipments, on the basis of the adjustments made above, accounted for about 18 per cent of total imports of the participating countries in the period under review, they were quite small when compared with national incomes. The percentages of ECA shipments to national income were as follows: United Kingdom, 3; France, 3; Italy, 4; Netherlands, 6; Belgium, 2; Denmark, 3; and Norway, 4.<sup>3</sup> But the significance of ECA-financed imports to these countries was much greater than is suggested by these figures, since they consisted for the most part of goods which could not be produced at home or obtained from soft currency countries in adequate quantity and which were necessary to complement domestic production.

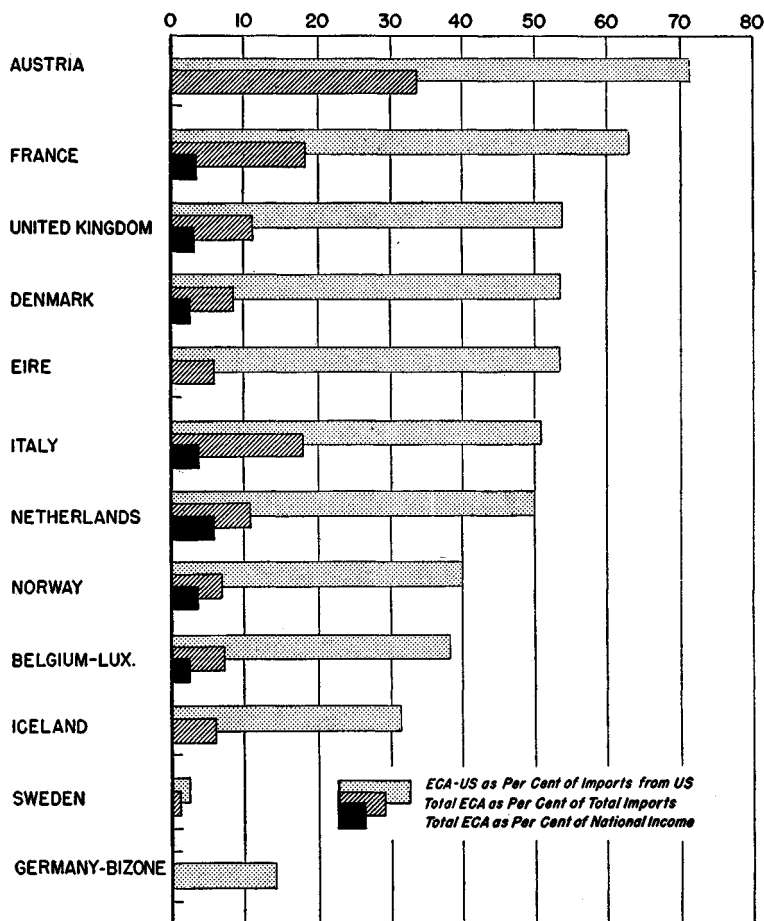
The unadjusted figures in Table 2 show that ECA shipments as a percentage of total imports and as a percentage of imports from the United States were larger for Austria than for any other country. Other countries for which ECA shipments accounted for over 10 per cent of total imports were France, Bizone Germany, Italy, Netherlands, and the United Kingdom. For the following countries, ECA-paid shipments from the United States accounted for over 50 per cent of total U. S. exports to those countries: Austria, Denmark, France, Eire, Italy, and the United Kingdom. (See Chart 1.)

The high percentages of total imports financed by ECA are a direct measure of the importance of ECA in financing imports. Therefore, it is evident that diminution and cessation of the ECA program will have substantial effects on most of the participating countries even

<sup>3</sup> National income in the 1948 calendar year was compared with ECA-paid shipments for the period April 1948 through March 1949.

in terms of total imports. The high percentages of U. S. exports financed by ECA are a direct indication of the substantial decline in imports from the United States which will be necessary for all par-

CHART 1. ECA-Paid Shipments as Percentages of Total Imports, Imports from the United States, and National Income, by Participating Countries <sup>1</sup>



<sup>1</sup> Both ECA-paid shipments from the United States as percentages of participating country imports from the United States (measured by U. S. exports) and total ECA-paid shipments (f. o. b.) as percentages of total imports (c. i. f.) are based on data for April 1948–May 1949. Total ECA-paid shipments as percentages of national income in 1948 are based on data for April 1948–March 1949.

participating countries except Sweden and Turkey. As would be expected, the decline in imports from the United States at the end of the program will be proportionately greater than the decline in total imports,

although this is less the case for Italy and the United Kingdom than for the other countries. As long as it is assumed that dollar earnings will not expand to offset the decline in ECA aid, these percentages also indicate the amount of imports which will have to be shifted to nondollar sources if the imports are to continue. Both the relative and absolute amounts are large enough in most cases to show that the financing of these imports even from nondollar sources is likely to create serious balance of payments problems. The problem will be greatest for Austria, France, Italy, and the Bizone, but the balance of payments positions of the participant countries vis-à-vis the soft currency countries will determine whether the problem can be easily solved. Offshore sources provided 41 per cent and the United States 59 per cent of total ECA supplies; that is, 5 per cent and 7 per cent respectively of total imports of the recipient countries. As shown in Table 2, ECA shipments, from both the United States and offshore, as proportions of total imports, were higher for Austria than for any other country. The table also shows that the proportion of ECA shipments from the United States was high for France and Italy, and that offshore sources were important for the United Kingdom. The United Kingdom and Sweden were the only countries whose proportions of total imports were higher for offshore shipments than for those from the United States, while, at the other extreme, Italy's ECA imports from the United States were slightly more than five times as large as offshore supplies, and the very small amount of ECA aid received by Turkey came entirely from the United States.

This division of ECA aid between the two sources of supply must be regarded first as a product of ECA's willingness to aid the financing of deficits with countries other than the United States. Second, it resulted in part from the particular import needs of the participating countries. When countries needed goods not available in the United States either because they were not produced there or were in short supply, ECA financed shipments from offshore sources. A high percentage of imports from offshore sources indicates that a country's import structure was comprised largely of such commodities. Denmark's imports of feeding stuffs and of petroleum, and Belgium's imports of petroleum and of sugar, are cases in point. Third, the importance of offshore procurement was sometimes a result of the attempt by ECA to maintain traditional trade channels and to ease the dollar position of particular supplying countries. This is most striking in the ECA financing of substantial Canadian exports to the United Kingdom. Fourth, the ECA provision that goods are not to be purchased offshore at prices higher than those for the same goods in the United States has tended to restrict to U. S. sources ECA purchases of some commodities. This factor may have tended to restrict certain offshore purchases, but its

effects are difficult to isolate. For the remainder of the program, the first and third factors may well continue to be no more or no less important than in the past. The second factor, however, will probably change, particularly in view of the fact that most agricultural commodities are likely to be in excess supply in the United States. Some changes may occur in the fourth factor, if prices of commodities from offshore sources fall below U. S. prices, either because of lowered production costs or as a result of the 1949 currency devaluations, or a combination of both.

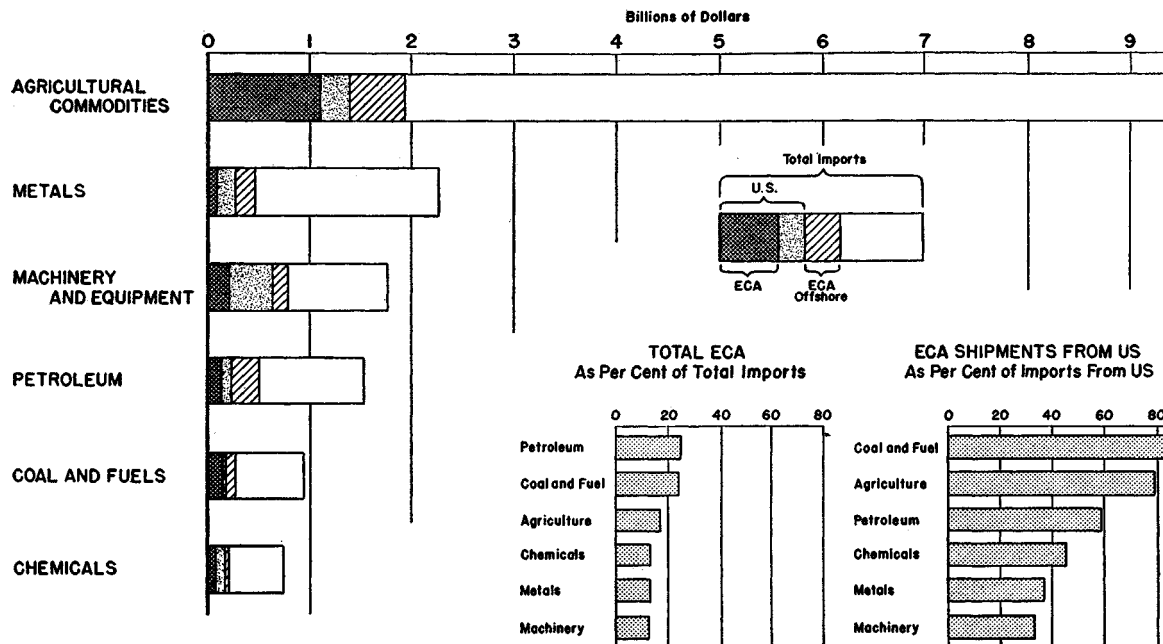
The last column in Table 2, which compares ECA shipments from offshore sources with total U. S. exports to the participating countries, shows that ECA offshore purchases amounted to 35 per cent of total U. S. exports. As ECA aid might have been restricted to the financing of U. S. exports, these figures indicate that offshore purchases had a substantial effect on U. S. exports of certain commodities to European countries. The extreme example is the United Kingdom, where total U. S. exports were almost equalled by ECA offshore shipments, the latter being equal to 92 per cent of the former. Other countries for which ECA offshore shipments were important as a percentage of total U. S. exports were Austria, Denmark, France, the Netherlands, and Norway. While the aggregate figures do not permit any conclusions concerning the extent to which foreign sources of particular commodities have supplied goods which the United States was also exporting, the amounts involved are large enough to indicate that this may be substantial. The individual country analysis below will illustrate the magnitudes involved.

While offshore purchases undoubtedly affected the distribution of the commodity trade of the United States and other countries with Europe and the composition and direction of U. S. exports, they could not significantly affect the extent of ECA influence on the aggregate amount of U. S. exports. It may be presumed that countries in which offshore purchases were made did, for the most part, have a dollar payments problem of their own. Their imports from the United States would, without offshore purchases, have necessarily been reduced sharply, perhaps to an amount nearly equivalent to offshore purchases.

### *Aggregate commodity data*

The proportion of the total imports of certain commodities which have been financed by ECA is an important aspect of total ECA aid. (See Chart 2.) In the 14 months under review agricultural commodities (including cotton, wool, and tobacco) accounted for 57 per cent of ECA-paid shipments, which covered 18 per cent of total imports of

CHART 2. Total Imports of Participating Countries, Imports from the United States, and ECA-Paid Shipments, by Principal Commodities<sup>1</sup>



<sup>1</sup> Based on data for April 1948–May 1949. Imports from the United States are measured by U. S. exports to the participating countries.



these commodities for the participating countries. Thus the dependence of those countries on ECA for agricultural supplies, and ECA's willingness to finance these commodities, are clearly demonstrated. It must be observed, of course, that ECA financing of such imports has aided reconstruction by permitting the concentration of productive resources on capital-goods output. This is particularly true for highly industrialized countries, such as the United Kingdom, which are able to produce a large proportion of their own capital goods. For some countries, as the program has progressed more emphasis has been placed on ECA-financed imports of industrial commodities. Under the assumption that agricultural production will improve, this change in emphasis will probably continue. Although agricultural supplies bulked largest both in total ECA shipments and in imports of the recipient countries, the proportion of total imports financed by ECA was larger for certain other commodity groups. ECA-paid shipments accounted for almost one fourth of the countries' imports of coal and petroleum. For the other commodity groups, however, ECA was considerably less important; it accounted for only about 13 per cent of chemicals, machinery, and metals.

The United States was most important as a source of coal, supplying 15 per cent of the value of the participating countries' total imports. It accounted for 12 per cent of imports of agricultural commodities, 12 per cent of machinery, and 10 per cent of chemicals. ECA shipments from offshore were particularly important for petroleum and metals. About 17 per cent of the countries' petroleum imports were from offshore sources, compared with 8 per cent from the United States, while offshore shipments of metals were also twice as great as those from the United States.

ECA shipments from the United States accounted for a significant proportion of U. S. exports to the participating countries. Of total U. S. exports of coal, 85 per cent were ECA-financed; of agricultural commodities 79 per cent; of petroleum 59 per cent; of chemicals 45 per cent; and of machinery and metals, about 35 per cent each. These high percentages and the fact that they apply to commodities forming the bulk of U. S. exports indicate a serious contraction in U. S. exports as ECA aid diminishes.

The importance of ECA-financed offshore shipments is emphasized by a comparison of these shipments with U. S. exports of the commodity groups. The detailed figures in Table 3 suggest that ECA has operated to preserve trade channels and has purchased offshore commodities that have been in short supply in the United States. For instance, U. S. stocks of petroleum were low during much of the period under review, and the ECA legislation specifically instructed ECA to

TABLE 3. TOTAL IMPORTS OF PARTICIPATING COUNTRIES, IMPORTS FROM UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948-MAY 1949 <sup>2</sup>

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments	Offshore	U. S. shipments	Offshore
			From U. S.	Offshore					
Agricultural commodities <sup>3</sup> ...	9,370.6	1,394.8	1,105.5	539.5	18	12	6	79	39
Coal and related fuels.....	948.8	169.6	143.4	84.1	24	15	9	85	50
Petroleum and products.....	1,525.5	217.6	129.0	251.2	25	8	17	59	115
Chemicals, incl. drugs and fertilizers .....	733.3	167.5	75.6	20.2	13	10	3	45	12
Machinery and equipment, incl. vehicles .....	1,783.5	632.7	212.4	14.4	13	12	1	34	2
Metals .....	2,257.6	252.8	93.7	201.7	13	4	9	37	80

<sup>1</sup> As measured by U. S. exports to participating countries.

<sup>2</sup> All data for Greece, Sweden, Bizone Germany, French Zone of Germany, and Turkey are omitted.

<sup>3</sup> Cotton, wool, and tobacco are included.

encourage offshore purchases of this commodity. Thus, while \$218 million of petroleum was exported by the United States to participating countries from April 1948 to May 1949, an even greater amount was shipped from offshore sources. The large amount of offshore shipments of metals (equal to more than three quarters of total U. S. exports to these countries) is also compatible with the reasons advanced above. At the other extreme, it is not surprising that offshore purchases of machinery have been small compared with U. S. exports, inasmuch as the United States is the primary producer in this field.

### Country Studies

The following analysis attempts to apply to individual countries the reasoning developed above in terms of aggregate figures. This has been done in relation to the contribution of ECA both to total imports and to imports from the United States, and for as broad a collection of commodity groups as practicable. While no attempt has been made to predict the actual effects of the end of the ECA program, its main implications are indicated. For lack of data, the French Zone of Germany and Greece are not included. Sweden and Turkey are excluded because of the relatively small contribution of ECA to their total imports. The data are not adjusted for the differences between c.i.f. and f.o.b., nor for the lag of ECA shipments behind U. S. exports.

#### *United Kingdom*

In terms of the percentage of total imports financed by ECA, the United Kingdom ranks fifth among the participating countries, with paid shipments accounting for 11 per cent of total imports. Thus, in the absence of U. S. aid, imports would presumably have been 11 per cent less. Under the assumption that dollar earnings will not increase, either imports will have to be cut at the end of the program by almost \$1 billion annually (about 3 per cent of the national income in 1948), or equivalent additional imports will have to be purchased from non-dollar sources. The proportions of total imports financed by ECA have been largest for grains, tobacco, nonferrous metals, machinery and equipment, petroleum, chemicals, sugar, and cotton (Table 4). Thus ECA has financed significant proportions of a variety of commodities each of which is essential to the U. K. economy. The group, however, is so diverse as to defy generalization. In fact, it would seem to indicate that ECA has not restricted its financing to any particular group, but has spread its assistance over almost the whole of U. K. imports.

TABLE 4. UNITED KINGDOM: TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948-MAY 1949

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments Offshore		U. S. shipments	Offshore
			From U. S.	Offshore					
Grains <sup>2</sup> .....	993.8	20.1	21.8	304.5	33	2	31	109	1,515
Fats and oils.....	608.1	5.6	1.3	—	—	—	—	23	—
Sugar and products.....	320.9	0.3	—	56.9	18	—	18	—	18,967
Dairy products .....	701.0	39.7	39.1	9.4	7	6	1	99	24
Meat .....	552.0	0.8	—	48.8	9	—	9	—	6,100
Feeding stuffs .....	87.0	0.5	—	—	—	—	—	—	—
Fertilizer .....	23.5	1.6	0.6	—	3	3	—	38	—
Petroleum and products.....	754.7	115.2	74.0	78.7	20	10	10	64	68
Coal and related fuels.....	1.2	—	—	—	—	—	—	—	—
Raw cotton .....	597.5	115.2	92.1	—	15	15	—	80	—
Nonferrous metals and products .....	603.7	48.5	16.6	140.6	26	3	23	34	290
Chemicals and drugs.....	136.7	45.5	20.5	3.5	18	15	3	45	8
Iron and steel.....	256.8	18.1	6.5	—	3	3	—	36	—
Pulp and paper.....	376.5	8.2	3.8	35.3	10	1	9	46	431
Fabricated basic textiles.....	336.4	19.5	6.9	—	2	2	—	35	—
Lumber and mfrs.....	461.9	13.7	8.0	29.8	8	2	7	58	218
Machinery and equipment..	222.5	140.2	44.5	1.8	21	20	1	32	1
Tractors .....	6.0	—	3.8	—	63	63	—	..	..
Motor vehicles .....	21.6	10.5	0.6	0.2	4	3	1	6	2
Tobacco .....	185.2	82.9	51.3	—	28	28	—	62	—
Fruits and vegetables.....	470.6	—	8.6	—	2	2	—	—	—
Beverages .....	546.4	—	—	—	—	—	—	—	—
Other food .....	316.8	—	—	—	—	—	—	—	—
Total listed items <sup>3</sup> .....	8,580.8	686.1	400.0	709.5	13	5	8	58	103
Total all items.....	10,175.8	772.2	414.4	713.8	11	4	7	54	92
Listed items as per cent of all items .....	84	89	97	99					

<sup>1</sup> As measured by U. S. exports to United Kingdom.

<sup>2</sup> The discrepancy between total imports from the United States and ECA-paid shipments from the United States is accounted for by the fact that a small proportion of these shipments was made to one or more of the United Kingdom's overseas territories and included in ECA shipments.

<sup>3</sup> Totals may not equal sums of items because of rounding.

ECA-paid shipments of agricultural commodities to the United Kingdom accounted for 57 per cent of total ECA-financed shipments to that country, or about the same as the average for the recipient countries as a whole, but more than for France, Belgium, and Denmark. This indicates that ECA has been willing to finance a large proportion of U. K. food imports, and that the United Kingdom has, in the present price and supply situation, been dependent upon dollar sources for a good many of these commodities. Moreover, ECA has been particularly willing to finance food supplies from non-United States sources. As a result, the United States, as a source of supply of ECA-financed shipments, has been less important for the United Kingdom than for any other participating country, and supplies from offshore sources (shown in Table 4) were considerably greater than those from the United States.

The list of commodities financed by ECA shows that ECA has facilitated the use of traditional trade channels. Of the important commodities purchased offshore, 77 per cent came from Canada, which has long been an important supplier for the United Kingdom. Offshore purchases in Canada included 31 per cent of the United Kingdom's imports of grains, 9 per cent of meats, 23 per cent of nonferrous metals, 9 per cent of pulp and paper, and 7 per cent of lumber. The only important U. K. offshore imports not coming from Canada were sugar and petroleum, accounting for 18 per cent and 10 per cent, respectively, of total imports of these commodities.

Latin America shipped 12 per cent of the offshore supplies, other ECA countries 8 per cent, and the Middle East 3 per cent, mainly petroleum. Thus the United Kingdom received at least 90 per cent of its total ECA supplies from hard currency areas. When ECA comes to an end, most of these imports will have to be shifted to nondollar sources or else financed in some alternative manner, if the United Kingdom is not to encounter an even more serious exchange problem.

Despite the fact that offshore shipments played the greater role (amounting to about 7 per cent of total U. K. imports), ECA shipments from the United States were almost 5 per cent of total U. K. imports of major items (Table 4), and were concentrated in relatively few groups. The United States supplied 10 per cent of total U. K. petroleum imports, 15 per cent each of cotton and chemicals, 20 per cent of machinery and equipment, and 28 per cent of tobacco. These five commodity groups alone account for 70 per cent of total ECA-paid shipments from the United States.

ECA shipments from the United States comprised 54 per cent of total U. S. exports to the United Kingdom from April 1948 to May 1949, and 58 per cent of the commodities shown in Table 4. Thus,

the share of U. S. exports financed by ECA was larger for the United Kingdom than for any other country except France and Austria. The percentages for particular commodities varied widely. Virtually all U. S. exports of grains and dairy products were financed by ECA, 80 per cent of cotton, about 60 per cent of petroleum, about half of chemicals and pulp and paper, and about one third of fertilizer, non-ferrous metals, iron and steel, textiles, and machinery and equipment. ECA shipments have thus been important in most of the categories which have typically dominated U. S. exports to the United Kingdom.

Offshore supplies amounted to 7 per cent of total U. K. imports, the highest proportion for any country except Austria. Compared with U. S. exports, ECA-financed shipments from offshore sources were much more important for the United Kingdom than for the other participating countries. For the commodities in Table 4, ECA shipments from offshore sources were double ECA exports from the United States, and, in fact, were 3 per cent larger than total U. S. exports to the United Kingdom. Large shipments of grains, sugar, and meats came entirely from offshore; offshore shipments of pulp and paper were over four times, of nonferrous metals almost three times, and of lumber more than twice total imports of those products from the United States. Since this merely indicates that Canada rather than the United States is the United Kingdom's chief source of supply for most of these products, it implies no easing of the impact of the end of ECA, because the United Kingdom's Canadian dollar deficit may prove to be as intractable as its U. S. dollar problem.

For the duration of the ECA program, the extent to which the United Kingdom can purchase in Canada goods which are also available in the United States is likely to be a continuing problem. This may be most acute for agricultural commodities where U. S. surpluses appear likely and the U. S. farm support policy points up the problem. Recently, this issue arose with regard to wheat, the commodity which in terms of dollar values has been the United Kingdom's largest ECA import. Under the Act of Congress governing ECA policy, an agricultural commodity is ineligible for ECA financing from offshore sources if it is surplus in the United States. Wheat was generally regarded as surplus in the United States by the spring of 1949, although it had not been so declared, and ECA ceased the issue of procurement authorizations for further wheat shipments from Canada. However, in mid-September, ECA agreed to permit the United Kingdom to purchase \$175 million of Canadian wheat in the present fiscal year, in order to alleviate the drain on British gold and dollar reserves. An associated agreement, however, provided for increased purchases of certain other agricultural commodities in the United States.

*France*

Statistical limitations make it impossible to present the data for France in the manner adopted for the other countries. First, the value of French imports, expressed in U. S. dollars, has been recorded for only the period July 1948 to June 1949. Furthermore, since the imports of metropolitan France cannot be classified in very great detail for this period, a comparison has been made in Table 5 between ECA exports and French imports by commodity groups. A detailed comparison by commodities is possible, however, for U. S. exports and ECA shipments to France (Table 6). Another limitation is that ECA-paid shipments include shipments to the overseas territories; while

TABLE 5. FRANCE: TOTAL IMPORTS <sup>1</sup> AND ECA-PAID SHIPMENTS, <sup>2</sup> BY COMMODITIES

Commodity	Total Imports <sup>1</sup> (in millions of U. S. dollars)	Total ECA Shipments <sup>2</sup>	ECA Shipments as Per Cent of Imports
Agricultural commodities .....	1,212.6	182.6	15
Coal .....	298.6	131.9	44
Petroleum and products.....	328.7	123.1	38
Metals .....	210.5	79.4	38
Textiles, including raw cotton and wool.....	533.2	122.2	23
Machinery and equipment, incl. vehicles.....	280.9	88.8	32
Other .....	501.8	45.6	9
Total listed items <sup>3</sup> .....	3,366.3	773.6	23

<sup>1</sup> These data cover the period July 1948-June 1949. They include imports from Dependent Overseas Territories.

<sup>2</sup> These data cover the period April 1948-June 1949.

<sup>3</sup> Totals may not equal sums of items because of rounding.

data are available which show total ECA shipments excluding those to the overseas territories, shipments from offshore sources to these territories cannot be distinguished.

ECA-paid shipments to metropolitan France from April 1948 to June 1949 were equal to about 23 per cent of total imports from July 1948 to June 1949 (Table 5), or a rate of about 3 per cent of the 1948 national income. Dependence on foreign aid for about one fifth of total imports indicates the over-all importance of the ECA program to France. Table 5 shows how outstandingly important ECA shipments of nonagricultural commodities have been to France, with 76 per cent of total ECA shipments being of this kind. Of France's imports of agricultural commodities (equivalent in all to \$1,212.6 million) 63 per cent came from its overseas territories, while ECA-paid

shipments accounted for 15 per cent. ECA financed 44 per cent of coal imports, 38 per cent each of petroleum and of metals, 32 per cent of machinery and equipment, and 23 per cent of textiles, including raw cotton. These figures illustrate France's dependence on its overseas territories as a source of foodstuffs, and its dependence on ECA financing for both its heavy investment program and its fuel imports. With some expansion of domestic production or increased imports from overseas territories, the end of ECA should not have too serious

TABLE 6. FRANCE AND DEPENDENT OVERSEAS TERRITORIES: IMPORTS FROM THE UNITED STATES <sup>1</sup> AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948-MAY 1949

Commodity	Imports from U. S. <sup>1</sup>	ECA Shipments		ECA Shipments as Per Cent of Imports from U. S. <sup>1</sup>	
		From U. S. (in millions of dollars)	Offshore	U. S. shipments	Offshore
Grains .....	103.5	74.7	—	72	—
Fats and oils.....	42.8	40.3	17.8	94	42
Feeding stuffs .....	4.5	3.9	0.5	87	11
Sugar and products.....	0.8	0.2	10.2	25	1,275
Dairy products .....	16.1	10.6	—	66	—
Petroleum and products.....	43.6	28.6	88.5	66	203
Coal and related fuels.....	100.4	95.8	36.3	95	36
Raw cotton .....	111.6	100.4	—	90	—
Iron and steel.....	33.2	11.7	0.3	35	1
Nonferrous metals .....	15.4	14.9	39.5	97	257
Chemicals, incl. drugs and fertilizer .....	36.8	25.9	7.7	70	21
Machinery and equipment, incl. vehicles .....	189.1	70.7	9.9	37	5
Tobacco .....	4.3	3.5	—	81	—
Total listed items <sup>2</sup> .....	702.1	481.2	210.7	69	30
Total all items .....	790.2	497.0	226.7	63	29
Listed items as per cent of all items.....	89	97	93		

<sup>1</sup> As measured by U. S. exports to France.

<sup>2</sup> Totals may not equal sums of items because of rounding.

consequences for France's total agricultural supplies. For coal, petroleum, and machinery, however, the end of ECA will create a serious problem of shifting these imports to other sources, or else diverting other products from dollar sources so as to free dollars for the purchase of these essential commodities.

In order to permit as detailed a commodity comparison as possible, U. S. exports and ECA shipments from the U. S. and offshore sources are shown in Table 6. Both ECA shipments and U. S. exports for the period April 1948 to May 1949 include shipments to French overseas



territories. ECA-financed shipments from the United States amounted to 63 per cent of total U. S. exports to France and overseas territories, and 69 per cent of the commodities shown in the table. Thus, the part of U. S. exports accounted for by ECA was larger for France than for any other country except Austria, and the end of ECA will have a sharp effect on French imports from the United States. Some 95 per cent of U. S. exports of fats and oils, coal, and nonferrous metals were financed by ECA, 90 per cent of cotton, over 80 per cent of feeding stuffs and tobacco, more than 65 per cent of petroleum, dairy products, and chemicals, and about 35 per cent of iron and steel products and machinery. Hence, ECA has played a very important role for a wide variety of commodities, and the end of the program would seem to imply a drastic and proportional cut in almost all U. S. exports to France. Unlike many other countries where a few ECA-financed commodities tend to dominate U. S. exports, there seems little possibility for France to cut back imports of other commodities to maintain the volume of those presently being financed by ECA.

Offshore purchases of commodities as a percentage of U. S. exports were larger for France than for any other country except the United Kingdom and Denmark. Offshore purchases from April 1948 to May 1949 amounted to 30 per cent of the principal exports to France from the United States (Table 6). Because of supply limitations in the United States, purchases of sugar were almost entirely from offshore; offshore purchases of petroleum were twice the petroleum exports from the United States, nonferrous metals two and one half times, and fats and oils and coal slightly more than a third of U. S. exports. As in other countries, these offshore purchases have probably not been made at the expense of U. S. suppliers inasmuch as the commodities were in short supply in the United States during part of the period under review. It can reasonably be expected, however, that offshore shipments of some of these will diminish as supplies continue to ease in the United States. This is particularly true for fats and oils. The cumulative total of procurement authorizations designating the United States as country of origin doubled between December 1948 and August 1949, while those designating other areas remained constant. In any case, since there would seem little prospect of shifting imports of sugar, petroleum, and fats and oils to nondollar sources as the volume of ECA aid diminishes, France will be faced with the problem of cutting back imports either of these products or of other commodities shipped from the United States or other dollar sources. Of the \$227 million of ECA supplies coming from offshore sources, \$30 million came from Canada, \$73 million from Latin America, \$44 million from participating countries, and \$80 million from "other" countries (mostly petro-

leum from the Middle East). Thus, although offshore purchases were large for France, less than half came from hard currency areas. The maintenance of her offshore purchases at the end of ECA would therefore seem to present a lesser problem for France than, for instance, the United Kingdom. The validity of this conclusion, however, will depend to a great extent on supply conditions in the Middle East oil areas. It presupposes that oil will be available from British companies and payable in sterling; if this should not be so, and if France had to purchase oil for U. S. dollars, her position would be weaker.

### *Italy*

ECA-paid shipments to Italy, which received the third largest amount of ECA aid, accounted for 18 per cent of Italy's total imports from April 1948 to May 1949, and were 4 per cent of national income in 1948. ECA-paid shipments amounted to one fifth of the imports listed in Table 7 (covering 88 per cent of all Italian imports). They provided more than 25 per cent of Italy's imports of grains and other foods, petroleum, coal, and raw cotton (which together comprise 63 per cent of all imports shown in the table), and more than 10 per cent of imports of fats and oils, nonferrous metals, and chemicals. ECA shipments of grains to Italy were larger than those to any other country except the United Kingdom, and shipments of petroleum, coal, and cotton larger than those to any other country except the United Kingdom and France. Hence, the variety of Italy's imports which were financed by ECA was not so great as in France. But even so, ECA shipments accounted for more than one quarter of the four commodity groups which, combined, were 63 per cent of total imports. This difference results mainly from the different commodity composition of the imports of France and Italy. The fact that over half of Italy's imports are of four commodities does, however, indicate the limited possibilities that Italy has for finding nondollar sources because, other things being equal, the fewer the number of imports (and the larger the proportion coming from dollar markets) the more difficult it is to find alternative sources of supply.

The United States as a source of ECA-paid shipments has been relatively more important for Italy than for any other country except Austria, accounting for 15 per cent of total Italian imports from April 1948 to May 1949, and for 17 per cent of the commodities shown in Table 7. ECA-paid shipments of agricultural commodities were almost exclusively from the United States, as well as 80 per cent of the coal, virtually all chemicals and drugs, and all shipments of machinery and tobacco.

TABLE 7. ITALY: TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948–MAY 1949

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments	Offshore	U. S. shipments	Offshore
			From U. S.	Offshore					
Grains and other food products <sup>2</sup> ..	534.9	208.9	157.6	—	30	30	—	75	—
Fats and oils .....	56.1	18.9	5.3	1.1	11	9	2	28	1
Dairy products .....	23.0	6.8	—	—	—	—	—	—	—
Fertilizer .....	4.7	0.8	—	—	—	—	—	—	—
Petroleum and products.....	101.7	15.4	5.4	23.7	29	5	23	35	154
Coal and related fuels.....	220.1	58.8	43.4	12.8	26	20	6	74	22
Raw cotton .....	173.7	98.3	46.2	—	27	27	—	47	—
Nonferrous metals and products..	48.6	6.5	2.3	6.1	17	5	13	35	94
Chemicals and drugs.....	45.0	23.0	5.8	0.1	13	13	—	25	—
Iron and steel.....	64.3	15.8	2.6	2.8	8	4	4	17	18
Pulp and paper.....	37.2	1.3	0.1	—	—	—	—	8	—
Lumber and mfrs.....	24.7	1.2	0.6	—	2	2	—	50	—
Machinery and equipment.....	51.3	22.5	2.2	—	4	4	—	10	—
Motor vehicles .....	34.7	22.2	—	—	—	—	—	—	—
Tobacco .....	17.6	5.9	1.7	—	10	10	—	29	—
Hides, skins, furs, and leather....	36.5	3.3	0.2	3.6	10	1	10	6	109
Wool .....	138.7	—	—	—	—	—	—	—	—
Total listed items <sup>3</sup> .....	1,612.8	509.6	273.4	50.2	20	17	3	54	10
Total all items.....	1,825.0	547.3	277.6	53.1	18	15	3	51	10
Listed items as per cent of all items .....	88	93	99	95					

<sup>1</sup> As measured by U. S. exports to Italy.

<sup>2</sup> Principally grains.

<sup>3</sup> Totals may not equal sums of items because of rounding.

Conversely, the proportion of ECA offshore purchases was smaller for Italy than for many of the other recipient countries (*viz.*, Austria, Denmark, France, the Bizone, and the United Kingdom). Such purchases accounted for only 3 per cent of Italy's imports from April 1948 through May 1949. As for other countries, however, offshore sources were important in ECA-financed shipments of petroleum, accounting for 23 per cent of Italian imports. Also important were offshore shipments of nonferrous metals, which amounted to 13 per cent of Italy's imports. In summary, offshore purchases of petroleum, nonferrous metals, and coal were 80 per cent of total offshore imports and 84 per cent of ECA shipments of the same commodities from the United States. Italy's offshore purchases, although not large, were mainly from nondollar sources. Canada supplied \$1 million of the shipments, Latin America, \$13 million, the participant countries, \$16 million, and "other" countries (mostly Middle East petroleum suppliers), \$23 million. As for France, the inclusion of the Middle East oil areas in nondollar sources presupposes oil supplies available from British companies, payable in sterling.

ECA shipments from the United States accounted for about one half of U. S. exports to Italy—about the same proportion as the average for all the participating countries. Of greatest importance in U. S. exports were ECA shipments of grains, coal, cotton, and nonferrous metals, but there was no ECA financing of U. S. exports of dairy products, fertilizer, motor vehicles, or wool (Table 7). This illustrates again the varying significance of ECA aid for U. S. exports, although of the commodities for which there was no ECA aid, only motor vehicles were exported to Italy in substantial volume. But as ECA aid was important for exports of quite a variety of U. S. exports, the end of the program is likely to curtail these particular commodities unless some of the other U. S. exports for which ECA has not been important (such as machinery and hides and skins, or the 7 per cent not included in Table 7) can be shifted to nondollar sources.

As total offshore purchases were equal to only 10 per cent of U. S. exports, offshore suppliers have not been important competitors of U. S. exporters. This reflects the general unimportance, already noted, of offshore purchases for Italy. For only three commodities—petroleum, nonferrous metals, and hides and skins—were offshore shipments significant in comparison with supplies from the United States. At least two of these were in short supply in the United States during part of the period considered. For other countries, offshore purchases of the same commodities which Italy bought entirely from the United States with ECA funds (*e.g.*, grains, fats and oils, pulp and paper) are of considerable importance.

*Bizone Germany*

In assessing the extent of ECA aid to Bizone Germany, the statistical difficulties encountered were greater than for any other country. The greatest difficulty was that of classifying the commodity groups of Bizonal imports as reported in the trade statistics of the Joint Export-Import Agency (JEIA), a U. S.-British agency instituted in order to coordinate foreign trade policy for the Bizone. JEIA classifies Bizone imports into Category "A" (those financed by foreign aid) and Category "B" (those financed by exports of the Bizone). Category "A" imports are shown in broad commodity groups, while those in Category "B" are shown in groups not unlike those used in the trade statistics of other countries. Although the classification of Category "A" imports in a form suitable for comparison with ECA and U. S. exports necessitated somewhat arbitrary decisions, it is believed that no significant error was introduced on this account. As U. S. export statistics do not show separate data for each zone of Germany, the data for the Bizone are shown without comparison with U. S. exports.

Total U. S. aid to Bizone Germany (ECA and army civilian supplies) for the period April 1948 to May 1949 amounted to an estimated \$915 million, or 49 per cent of total Bizonal imports of \$1,854 million. Aid to the Bizone from the United Kingdom has not been large, although its inclusion would show an even greater dependence on foreign aid for financing imports. As only 14 per cent of total Bizonal imports was derived from ECA, a discussion of ECA by itself avoids a large part of the adjustment problem that would be posed by the cessation of all U. S. aid. Moreover, when discussing ECA shipments of particular commodities, it must be remembered that without ECA the same shipments might have been financed either by the occupation authorities or through use of earnings from exports.

ECA-paid shipments accounted for 14 per cent of Bizonal imports from April 1948 to May 1949, and for 15 per cent of the commodities shown in Table 8. Hence the Bizone ranks fourth in the proportion of total imports financed by ECA. ECA accounted for 14 per cent of food imports, this rather small amount being made possible by large food shipments under the army civilian supply program. Total Bizone food imports amounted to over \$1 billion for this period. ECA was, however, considerably more important in Bizonal imports of other commodities, accounting for 51 per cent of machinery and vehicles, 45 per cent of hides, skins, and leather, 90 per cent of tobacco, and for about 25 per cent of textiles (including cotton) and of metals. Thus ECA aid has played a role of varied importance in the different commodity groups, ranging from almost 90 per cent of tobacco imports

TABLE 8. BIZONE GERMANY: TOTAL IMPORTS AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948-MAY 1949

Commodity	Imports (in millions of U. S. dollars)			ECA Shipments as Per Cent of Total Imports		
	Total imports	ECA shipments		Total ECA	U. S. shipments	Offshore
		From U. S.	Offshore			
Grains .....	590.3	63.7	—	11	11	—
Fats and oils .....	165.0	34.0	21.1	33	21	13
Sugar .....	79.2	—	—	—	—	—
Meat .....	22.8	7.4	6.1	59	33	27
Fish .....	52.0	—	—	—	—	—
Vegetables and fruits .....	103.1	0.9	7.7	1	—	1
Other food .....	53.8	0.6	2.3	1	—	—
Seeds .....	55.7	—	—	—	—	—
Fertilizer .....	55.7	—	3.8	1	—	1
Petroleum and products .....	66.3	0.4	2.1	4	1	3
Coal and products .....	57.6	—	—	—	—	—
Textiles, fibers and products, including cotton .....	200.2	52.2	1.0	27	26	1
Nonmetallic minerals .....	14.9	0.2	—	1	1	—
Iron and steel products and nonferrous metals .....	39.0	7.9	2.5	27	20	6
Metallic ores and concentrates .....	45.1	—	—	—	—	—
Chemicals, including drugs .....	34.3	1.8	—	1	1	—
Pulp and paper .....	30.6	2.0	3.0	16	7	10
Machinery and vehicles, including ships .....	10.6	5.4	—	51	51	—
Hides, skins, and leather .....	39.3	9.7	7.9	45	25	20
Tobacco .....	20.2	15.7	2.4	90	78	12
Total listed items <sup>1</sup> .....	1,735.7	201.9	59.9	15	12	4
Total all items .....	1,854.2	204.5	62.4	14	11	3
Listed items as per cent of all items .....	94	99	96			

<sup>1</sup> Totals may not equal sums of items because of rounding.

to less than 1 per cent of chemicals. Unless the commodity composition of imports is to change radically, the diminution of ECA aid will necessitate considerable shifting of expenditure of dollars earned from exports.

Almost 80 per cent of ECA shipments to the Bizone from April 1948 to May 1949 were from the United States. These included all shipments of grains, nonmetallic minerals, chemicals, machinery and vehicles, and by far the greatest part of shipments of textiles (including cotton), iron and steel products and nonferrous metals, and tobacco. This dependence on the United States is an indication, in part, of the importance of U. S. aid in total Bizone imports. The end of ECA and the removal of occupation controls could reasonably be expected to result in less dependence on the United States as the dominant source of these commodities, although this, in part, may reflect the disruption of trade channels resulting from the war and the trade policies of the 1930's. However, the fact that U. S. supplies have dominated ECA shipments of most of these commodities (e.g., cotton, tobacco, and machinery) to other participating countries indicates that the United States is the chief source of supply, and this may be expected to continue to be the case.

Although offshore shipments accounted for only 4 per cent of total Bizonal imports, they were important for fats and oils, meat, and hides, skins, and leather (Table 8). As there were substantial shipments of the same commodities from the United States, offshore supplies are best interpreted as a supplement to U. S. exports of materials which were somewhat short in the United States during part of the period. For only one commodity, fertilizers, were ECA-financed shipments exclusively from offshore, but these amounted to only \$4 million, or less than 1 per cent of Bizonal imports of this commodity. The greater part of offshore supplies came from nondollar areas. Canada supplied \$6 million; Latin America \$19 million; participating countries \$28 million; and "other" countries \$9 million. Thus the dollar earnings involved in financing these offshore supplies at the end of the program do not seem to amount to a substantial sum.

### *Netherlands*

The proportion of imports financed by ECA was smaller for the Netherlands (11 per cent) than for many of the other participating countries (viz., Austria, France, Bizone Germany, and Italy). However, in relation to the national income in 1948 it was larger than for any other country, amounting to roughly 6 per cent, a fact which indicates that the end of the program may be expected to require

far-reaching adjustments. ECA-paid shipments of agricultural products, which were 57 per cent of total ECA aid, amounted to 23 per cent of the Netherlands imports of agricultural commodities (60 per cent of grains) shown in Table 9. In the industrial products group, ECA contributed fairly significant amounts of Netherlands imports of petroleum, coal, and nonferrous metals. For half of the commodities in the table, however, ECA shipments were less than 10 per cent of total imports. Hence, the diminution and end of ECA aid could mean rather widespread, but not too substantial, cuts in a number of imports, depending upon the allocation of Dutch dollar earnings as the total supply of dollars decreases. Moreover, the fairly equal distribution of ECA aid among particular commodities implies that ECA has not insisted upon the use of its funds to finance any particular imports. The funds seem to have been used to increase all imports except grains by about the same amount. This suggests that, in comparison with other participating countries, the increase in total dollar availabilities resulting from ECA had no marked effect on the relative allocation of dollar spending.

The United States has been the chief source of ECA-financed shipments of agricultural products (except meats), and has supplied all ECA shipments of iron and steel, cotton, pulp and paper, machinery, and vehicles. Offshore sources, however, have been more important in Netherlands imports of many other commodities. Total offshore shipments accounted for only 3 per cent of total imports, but the percentages for some commodities (e.g., fertilizer, petroleum, coal, and fabricated basic textiles) were higher. Again, these were also the commodities procured offshore by most of the other countries. About half of the Netherlands offshore supplies were from nondollar sources; Canada supplied \$13 million, Latin America, \$24 million, participating countries, \$15 million, and "other" countries, \$24 million. Thus, under the assumption that the Netherlands will be able to finance payment to soft currency countries, offshore supplies could be continued with little difficulty at the end of the program.

For the Netherlands, the role of ECA shipments from the United States in U. S. exports approximates the average of 50 per cent for all participating countries. ECA shipments from the United States accounted for virtually all U. S. exports of grains, and about three fourths of U. S. exports of fats and oils, fertilizers, and lumber and manufactures. With the end of the program, a considerable impact on total U. S. exports, and probably on exports of these particular commodities, can be expected unless the dollar earnings of the Netherlands or its dependent territories rise substantially.

Offshore purchases amounted to 17 per cent of total U. S. exports to



TABLE 9. NETHERLANDS: TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948-MAY 1949

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments <sup>2</sup> as Per Cent of Total Imports			ECA Shipments <sup>2</sup> as Per Cent of Imports from United States <sup>2</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments <sup>2</sup>		Total ECA	U. S. shipments	Offshore	U. S. shipments	Offshore
			From U. S.	Offshore					
Grains .....	144.2	83.0	81.0	4.9	60	56	3	98	6
Fats and oils.....	252.7	22.5	16.6	8.3	10	7	3	74	37
Animals and animal products..	39.8	1.3	0.2	4.0	11	1	10	15	308
Fertilizer .....	46.2	8.3	2.5	3.0	12	5	7	76	91
Petroleum and products.....	98.7	9.5	5.4	9.1	15	6	9	57	96
Coal and related fuels.....	77.2	5.7	2.9	9.6	16	4	12	51	168
Raw cotton .....	46.6	28.7	7.0	—	15	15	—	24	—
Wool .....	39.5	—	—	—	—	—	—	—	—
Nonferrous metals .....	74.7	23.8	4.8	3.4	11	6	5	20	14
Chemicals and drugs.....	88.7	14.4	7.0	0.1	8	8	—	49	1
Iron and steel.....	327.5	30.5	15.5	—	5	5	—	51	—
Pulp and paper.....	83.0	1.0	0.4	—	1	1	—	40	—
Fabricated basic textiles.....	172.3	3.0	1.1	11.8	8	1	7	37	393
Lumber and mfrs.....	109.0	3.1	2.2	0.1	2	2	—	71	3
Machinery and equipment....	248.7	39.1	8.4	—	3	3	—	22	—
Motor vehicles .....	129.1	41.5	6.6	—	5	5	—	16	—
Tobacco .....	19.3	12.4	2.5	0.7	17	13	4	20	6
Total listed items <sup>3</sup> .....	1,997.2	322.8	164.1	55.0	11	8	3	51	17
Total all items.....	2,277.1	362.5	180.4	66.0	11	8	3	50	18
Listed items as per cent of all items .....	88	89	91	83					

<sup>1</sup> As measured by U. S. exports to the Netherlands.<sup>2</sup> Shipments to Indonesia excluded.<sup>3</sup> Totals may not equal sums of items because of rounding.

the Netherlands; and for about two thirds of the commodities shown in Table 9, there were shipments from both offshore and the United States. Shipments from offshore sources were almost equal to, or greater than, U. S. exports of animals and animal products, fertilizer, petroleum, coal, and fabricated basic textiles. In part, this resulted from supply difficulties in the United States, but it also seems to have resulted from the rather wide distribution of ECA aid which enabled the Netherlands to increase all imports by roughly the same amount.

### *Austria*

Certain statistical difficulties in addition to those discussed above (see *Statistical limitations*, pp. 76-77) arise in reviewing the extent of ECA aid to Austria. As the statistics in Table 10 include about 98 per cent of ECA shipments to Austria and 88 per cent of total Austrian imports classified on a similar commodity basis, the omissions here involve no significant error. A more serious error, however, is probably introduced by the use of the then official exchange rate of 10.14 schillings per U. S. dollar for the conversion of Austrian imports. Since a substantial number of transactions took place at a depreciated rate, conversion at the official rate overstates the value of total imports and introduces some distortion in their commodity distribution. Although this error is probably substantial, there is no means of estimating its possible magnitude. In part, its effects are minimized, however, by the means used to calculate the total value of Austrian imports. This was done by adding commercial imports as reported in official Austrian sources to ECA-paid shipments. The former, which included ECA coal shipments, were converted at the official rate, while the latter were total ECA shipments minus coal as reported in U. S. dollars. By this procedure, the U. S. dollar value of all ECA shipments (about one third of total imports) was obtained without distortion.

ECA shipments accounted for 34 per cent of total Austrian imports from April 1948 to May 1949, and almost 37 per cent of the commodities shown in Table 10. Thus, the ECA-financed proportion of imports was larger for Austria than for any other country. ECA shipments accounted for over 56 per cent of Austrian imports of agricultural commodities. Within this total, however, there was a wide range of variation: from 82 per cent for grain imports to 7 per cent for imports of dairy products. The main impact of the ECA program has been in agriculture, but this would be expected as imports of farm products comprised almost half of the total of Austrian imports shown in Table 10. This is a striking demonstration that up to the present

TABLE 10. AUSTRIA: TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948-MAY 1949

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments	Offshore	U. S. shipments	Offshore
			From U. S.	Offshore					
Grains .....	85.0	85.0	69.5	—	82	82	—	82	—
Fats and oils.....	39.3	22.4	22.4	9.6	81	57	24	100	43
Meat .....	5.5	2.4	2.1	0.1	40	38	2	88	4
Fruits and vegetables.....	30.4	16.4	3.4	—	11	11	—	21	—
Sugar and products.....	15.0	0.1	—	6.6	44	—	44	—	6,600
Dairy products .....	5.5	5.5	0.4	—	7	7	—	7	—
Fertilizer .....	6.4	0.4	0.4	4.1	70	6	64	100	1,025
Petroleum and products.....	6.1	1.1	0.6	0.3	15	10	5	55	27
Coal and related fuels.....	96.5	3.4	—	21.4	22	—	22	—	629
Raw cotton .....	23.4	10.4	10.4	0.3	46	44	1	100	3
Wool .....	15.6	1.6	1.6	—	10	10	—	100	—
All metals and products.....	44.0	5.5	2.3	4.0	14	5	9	42	73
Chemicals and drugs.....	29.8	9.0	4.9	0.8	19	16	3	54	9
Feeding stuffs .....	3.4	1.0	1.0	0.9	56	29	27	100	90
Pulp and paper.....	2.0	0.1	—	—	—	—	—	—	—
Fabricated basic textiles.....	19.1	2.2	—	0.2	1	—	1	—	9
Lumber and mfrs.....	6.4	0.3	0.3	—	5	5	—	100	—
Machinery and equipment....	23.7	6.5	2.1	0.8	12	9	3	32	12
Motor vehicles .....	6.3	0.5	0.4	0.1	8	6	2	80	20
Tobacco .....	11.0	3.7	3.7	—	34	34	—	100	—
Hides, skins, furs, and leather..	5.1	0.3	0.2	1.5	33	4	29	67	500
Total listed items <sup>2</sup> .....	479.5	177.8	125.7	50.7	37	26	11	71	29
Total all items.....	543.3	183.2	131.2	51.3	34	24	10	71	28
Listed items as per cent of all items .....	88	97	96	99					

<sup>1</sup> As measured by U. S. exports to Austria.<sup>2</sup> Totals may not equal sums of items because of rounding.

time ECA funds have not been used directly to finance industrial development to any significant extent. Furthermore, the trend, as indicated by procurement authorizations at the end of August 1949, is toward even greater emphasis on agricultural products. About 70 per cent of these authorizations were for agricultural commodities, against 56 per cent of total shipments to the end of May. This leaves only 30 per cent for the industrial goods category, which includes materials as well as capital goods.

ECA aid has also been of considerable importance in financing coal imports. ECA shipments amounted to \$21 million and accounted for 22 per cent of total imports of this commodity. Apart from coal, however, ECA supplies of industrial goods were not large, the most important in absolute terms being metals (\$6 million) and chemicals (\$6 million). While the proportions of total imports of fertilizer and of hides, skins, and furs financed by ECA were large, the absolute amounts were negligible.

The United States supplied the bulk of ECA supplies going to Austria, and accounted for over 95 per cent of such shipments of grains, meat, fruits and vegetables, dairy products, cotton, wool, tobacco, and lumber. For grains, fats and oils, and cotton, these shipments accounted for more than 40 per cent of the total of each of these imports. While offshore procurement accounted for only one quarter of total ECA-paid shipments, non-U. S. sources supplied large shares of ECA shipments to Austria of particular commodities, such as sugar, fats and oils, coal, and metals. In some instances, these shipments were a significant proportion of total imports. For example, 44 per cent of sugar and 22 per cent of coal imports were from offshore suppliers.

ECA shipments as a proportion of U. S. exports were larger for Austria than for any other participating country. As ECA shipments from the United States accounted for 71 per cent of total U. S. exports to Austria, the bolstering effect to U. S. exports to Austria of the foreign aid program is clear. ECA financed all the U. S. exports of seven commodities, the most important of which are fats and oils and cotton. The absolute amount of financing of these commodities, however, was exceeded by the financing of grains despite the fact that almost one fifth of total grain exports was financed by other means. ECA played no part in financing U. S. exports to Austria of sugar, coal, pulp and paper, and textiles. There were private shipments of coal, textiles, and sugar from the United States, but ECA aid was restricted to financing these goods from offshore sources. The sum involved, however, was not large.

ECA financed substantial exports to Austria originating in offshore sources. Of the total, participating countries supplied \$25 million, "other" countries \$13 million, Latin America \$10 million, and Canada \$4 million. Over half of the total was supplied by the Bizone (\$15 million), Poland (\$9 million), and Cuba (\$7 million). Thus under the offshore procurement program, about \$40 million of supplies has already been diverted to nondollar sources of supply, and at the end of the program will not require additional dollar financing. To this extent the impact of the end of ECA will be softened. The dollar earnings of the supplying countries will, however, decrease by the same amount, with indirect effects on total U. S. exports.

Considerable purchases were made offshore of the same commodities that were exported from the United States, and some exports from offshore were a significant percentage of U. S. exports of the same product, e.g., fats and oils, metals, and feeding stuffs (Table 10). This dependence on offshore sources for commodities exported from the United States may reflect supply limitations there, price and quality differentials, or the attempt by ECA to facilitate the maintenance of well-established trade channels. In any case, this type of export is to be clearly differentiated from such exports as sugar, which the United States buys offshore mainly because of supply considerations. This distinction is of particular importance because it provides a basis for estimating how far offshore purchases are likely to decline as supply conditions in the United States continue to improve. It also suggests the limits likely to be imposed upon participating countries in attempting, as the offshore program is curtailed, to maintain the same commodity structure of imports. Furthermore, it is an indication, assuming no supply difficulties, of the extent to which Austria might divert its source of supply for imports from the United States to offshore sources.

### *Belgium-Luxembourg*

Belgium-Luxembourg's position in the European Recovery Program is noteworthy not so much on account of the absolute magnitude of the aid received, as for the fact that most ECA aid is extended on the condition that Belgium export a corresponding amount of goods to other participating countries. Hence, of the \$250 million of aid to Belgium recommended by the OEEC (Organization for European Economic Cooperation) for the fiscal year 1949, \$208 million was matched by Belgian exports to other participating countries. This arrangement permits Belgium to finance imports from the Western Hemisphere while exporting goods which are needed by other participating countries.

ECA-paid shipments accounted for 7 per cent of total Belgian imports for the period April 1948 to May 1949, and for 9 per cent of the commodities shown in Table 11, which make up 74 per cent of Belgium's total imports. Compared with other countries, the shares both of total imports and of imports of particular commodities financed by ECA are small. The most important commodities of which ECA financed a large share were grains, petroleum products, and motor vehicles (Table 11). ECA also financed one quarter of Belgian imports of fats and oils and of tobacco, and over half of the sugar imports. The relatively large shares reflect the fact that these are dollar imports. Of the remainder, the ECA share was less than 10 per cent, although some ECA shipments were made of all but one of the commodities listed in the table.

The United States has supplied 82 per cent of the ECA-financed shipments to Belgium shown in Table 11. These include most ECA shipments of grains and meats, and all ECA shipments of fats and oils, dairy products, fertilizers, cotton, chemicals, iron and steel, paper and products, lumber, machinery and equipment, motor vehicles, and tobacco. Shipments from offshore amounted to only 2 per cent of total imports, and consisted chiefly of two products—sugar and petroleum—both unobtainable from domestic sources or in short supply in the United States. Offshore shipments of these two commodities amounted to 56 per cent of Belgium's total imports of sugar and to 17 per cent of total petroleum imports. The other commodities from offshore sources (grains, meats, coal, nonferrous metals, and vehicles) total less than \$5 million. Belgian purchases of offshore supplies were from the following areas: Canada \$8 million, Latin America \$16 million, participating countries \$5 million, and "other" countries (mostly petroleum from the Middle East) \$7 million. Thus, Belgian offshore purchases from nondollar sources were less than one third of total offshore procurement, which further emphasizes the hard currency problem which Belgium will face at the end of the ECA program.

ECA did not finance so large a share of U. S. exports to Belgium-Luxembourg as to Austria and other participating countries (viz., Denmark, France, Italy, the Netherlands, and the United Kingdom). It accounted, however, for 38 per cent of total U. S. exports, and 42 per cent of the commodities shown in Table 11. ECA was of special importance in total U. S. exports of agricultural products, particularly grains, fats and oils, and meats. ECA shipments accounted for at least half of total U. S. exports of motor vehicles, lumber, and coal, and for more than two fifths of iron and steel exports.

ECA offshore purchases of the same commodities exported by the United States, while not large for Belgium, were relatively important

TABLE 11. BELGIUM-LUXEMBOURG: TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948-MAY 1949

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments	Offshore	U. S. shipments	Offshore
			From U. S.	Offshore					
Grains .....	154.8	37.8	33.8	2.7	24	22	2	89	7
Fats and oils.....	30.3	11.8	7.9	—	26	26	—	67	—
Sugar and products.....	12.8	1.0	—	7.2	56	—	56	—	720
Dairy products .....	134.1	17.4	6.8	—	5	5	—	39	—
Meat .....	49.1	7.4	3.3	0.1	9	7	2	45	1
Fertilizer .....	37.5	0.7	0.6	—	2	2	—	86	—
Petroleum and products....	83.0	13.6	2.5	13.7	20	3	17	18	101
Coal and related fuels.....	81.7	0.7	0.9	1.2	3	1	2	129	171
Cotton .....	85.7	24.0	0.1	—	—	—	—	4	—
Wool .....	117.9	—	—	—	—	—	—	—	—
Nonferrous metals .....	124.8	5.2	—	0.6	1	—	1	—	12
Chemicals and drugs.....	69.3	21.1	5.9	—	9	9	—	28	—
Iron and steel.....	242.1	13.3	5.7	—	2	2	—	43	—
Paper and products.....	55.9	1.9	0.6	—	1	1	—	32	—
Lumber and mfrs.....	51.8	4.8	2.4	—	5	5	—	50	—
Machinery and equipment...	192.7	50.4	9.6	—	5	5	—	19	—
Motor vehicles .....	94.9	56.3	32.4	0.1	34	34	—	58	—
Tobacco .....	19.0	12.1	4.7	—	25	25	—	39	—
Total listed items <sup>2</sup> .....	1,637.4	279.5	117.2	25.6	9	7	2	42	9
Total all items.....	2,222.5	336.7	128.5	35.3	7	6	2	38	11
Listed items as per cent of all items.....	74	83	91	73					

<sup>1</sup> As measured by U. S. exports to Belgium-Luxembourg.

<sup>2</sup> Totals may not equal sums of items because of rounding.

for sugar, petroleum, and coal. This is further evidence of the relative unimportance of offshore purchases of most commodities for Belgium. For sugar, coal, and petroleum, the ratios of Belgian offshore purchases to purchases from the United States were, respectively, 7:1, nearly 2:1, and 1:1. However, as these commodities are either not typically exported from the United States or were in short supply during the period considered, offshore purchases cannot be considered to have been at the expense of U. S. suppliers. This also implies that ECA has been financing trade to maintain it in its customary channels and has been contributing to the financing of the deficits of the participating countries with the Western Hemisphere as a whole. Judging by the limited amount of offshore purchases, however, there seems little prospect of Belgium shifting the source of the bulk of its ECA-financed imports away from the United States at the end of the program.

### *Denmark*

ECA shipments accounted for almost 9 per cent of total Danish imports from April 1948 to May 1949, and for 11 per cent of the commodities shown in Table 12. The most important of these, in absolute terms, were petroleum, feeding stuffs, and grains, which together accounted for 20 per cent of the Danish imports shown in the table. In addition, ECA financed 60 per cent of cotton and one third of tobacco imports. However, as ECA financed more than 15 per cent of total imports of only five out of twenty commodities, the commodity range of ECA aid was clearly narrow.

ECA shipments from the United States were 56 per cent of all ECA-financed shipments to Denmark from April 1948 to May 1949. Such shipments of grain accounted for 22 per cent of total Danish imports, fats and oils 8 per cent, feeding stuffs 11 per cent, petroleum 11 per cent, raw cotton 60 per cent, motor vehicles 15 per cent, and tobacco 33 per cent. Of most of these commodities, however, there were also shipments from offshore sources to supplement supplies of U. S. goods. The importance of offshore procurement in ECA aid was greater for Denmark than for any other country except the United Kingdom and Sweden. There were large offshore shipments, even larger than those from the United States, of feeding stuffs, petroleum, and nonferrous metals (Table 12); and shipments of fats and oils from sources other than the United States were also important. The importance of offshore sources in Danish ECA imports resulted from a number of factors—domestic shortages in the United States (e.g., petroleum), the maintenance of long-standing trade patterns (e.g., feeding stuffs), and the attempt to stimulate intra-European trade prior to the im-



TABLE 12. DENMARK: TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948-MAY 1949

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments	Offshore	U. S. shipments	Offshore
			From U. S.	Offshore					
Grains .....	34.2	8.1	7.4	2.4	29	22	7	91	30
Fats and oils .....	46.7	4.5	3.5	2.8	14	8	6	78	62
Sugar and products .....	0.3	—	—	—	—	—	—	—	—
Dairy products .....	0.1	—	—	—	—	—	—	—	—
Meat .....	0.1	—	—	—	—	—	—	—	—
Feeding stuffs .....	57.3	6.0	6.0	10.3	28	11	18	100	172
Fertilizer .....	30.0	—	—	—	—	—	—	—	—
Petroleum and products .....	60.5	9.6	6.5	13.6	33	11	23	68	142
Coal and related fuels .....	92.7	—	—	2.9	3	—	3	—	—
Raw cotton .....	6.3	5.3	3.8	—	60	60	—	72	—
Wool .....	16.7	—	—	—	—	—	—	—	—
Nonferrous metals .....	26.2	1.4	0.5	2.0	9	2	8	36	143
Chemicals and drugs .....	40.9	4.8	0.2	—	1	1	—	4	—
Iron and steel .....	80.7	9.1	2.8	—	4	4	—	31	—
Pulp and paper .....	40.1	—	—	—	—	—	—	—	—
Fabricated basic textiles .....	82.4	0.8	0.4	—	1	1	—	50	—
Lumber and mfrs. ....	37.0	0.4	—	—	—	—	—	—	—
Machinery and equipment .....	64.1	13.7	3.6	1.1	7	6	2	26	8
Motor vehicles .....	15.6	5.7	2.3	0.1	15	15	1	40	2
Tobacco .....	20.1	8.7	6.7	—	33	33	—	77	—
Total listed items <sup>2</sup> .....	752.0	78.1	43.7	35.2	11	6	5	56	45
Total all items .....	946.1	86.3	46.2	36.1	9	5	4	54	42
Listed items as per cent of all items .....	80	91	95	98					

<sup>1</sup> As measured by U. S. exports to Denmark.

<sup>2</sup> Totals may not equal sums of items because of rounding.

plementation of the payments agreement (e.g., coal). The ECA-financed commodities shipped from the United States are those characteristically imported by Denmark from that source. Like the Netherlands, Denmark received about half her offshore supplies from non-dollar sources. Canada supplied \$5 million, Latin America \$13 million, participating countries \$14 million, and other countries \$4 million. To the extent that Denmark can increase her imports, particularly of petroleum and feeding stuffs, from nondollar sources, her position at the end of ECA will be improved, but this will depend upon supply conditions in these areas.

ECA-paid shipments accounted for over half of U. S. exports to Denmark from April 1948 to May 1949. They accounted for all U. S. exports of feeding stuffs, 91 per cent of grains, 78 per cent of fats and oils, 68 per cent of petroleum, 72 per cent of cotton, and 77 per cent of tobacco. In fact, ECA accounted for a high percentage of all but one of the U. S. exports to Denmark shown in Table 12. This indicates how important ECA has been in maintaining the volume of U. S. exports to Denmark, and implies a severe contraction in most, if not all, exports at the end of the program, unless dollar earnings expand.

Offshore purchases by ECA were equal to 42 per cent of total U. S. exports to Denmark. In all instances these shipments were of commodities also supplied by U. S. exporters. Especially important were offshore shipments of feeding stuffs, which were one and three quarter times those from the United States, petroleum and nonferrous metals, almost one and one half times, and fats and oils, almost two thirds those from the United States. Most of these commodities, however, were in short supply in the United States during the period, so that they may be expected to play a smaller role as the program continues.

### *Norway, Eire, and Iceland*

The proportions of imports accounted for by ECA aid averaged less for Norway, Eire, and Iceland than for the other recipients of ECA aid examined in this paper. ECA shipments were approximately 6 per cent of the total imports of these countries during the period April 1948 to May 1949. Although of little importance in the aggregate, they comprised a significant proportion of certain imports. For Norway, 43 per cent of grains and 76 per cent of tobacco imports were financed by ECA; for Eire, 28 per cent of grains and 46 per cent of tobacco; and for Iceland, 50 per cent of feeding stuffs (see Tables 13, 14, and 15).

The offshore procurement program was larger, relative to total ECA shipments, for Norway than for any other country except the United

TABLE 13. NORWAY: TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS,  
BY COMMODITIES, APRIL 1948-MAY 1949

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments	Offshore	U. S.	
			From U. S.	Offshore				shipments	Offshore
Grains .....	63.0	23.1	22.5	4.7	43	36	8	97	20
Fats and oils.....	22.8	0.7	0.5	2.4	13	2	11	71	343
Sugar and products.....	18.5	—	—	—	—	—	—	—	—
Feeding stuffs .....	6.3	0.5	0.3	—	5	5	—	60	—
Fertilizer .....	13.4	—	—	—	—	—	—	—	—
Petroleum and products.....	58.6	7.2	1.7	8.5	17	3	15	24	118
Coal and related fuels.....	45.4	0.6	—	—	—	—	—	—	—
Raw cotton .....	3.6	2.4	0.6	—	17	17	—	25	—
Wool .....	7.4	—	—	—	—	—	—	—	—
Nonferrous metals .....	29.3	1.2	0.5	1.8	8	2	6	42	150
Chemicals and drugs.....	27.9	4.7	—	0.8	3	—	3	—	17
Iron and steel.....	77.0	22.1	6.0	—	8	8	—	27	—
Pulp and paper.....	7.7	0.1	—	—	—	—	—	—	—
Fabricated basic textiles.....	84.1	4.5	3.1	0.8	5	4	1	69	18
Lumber and mfrs.....	12.2	1.1	0.3	—	3	3	—	27	—
Machinery and equipment.....	93.4	16.0	0.9	—	1	1	—	6	—
Ships .....	179.4	—	—	—	—	—	—	—	—
Tractors .....	4.4	2.2	0.7	—	16	16	—	32	—
Tobacco .....	7.4	6.4	5.6	—	76	76	—	88	—
Total listed items <sup>2</sup> .....	761.8	92.8	42.7	19.0	8	6	3	46	21
Total all items.....	938.4	110.2	43.6	20.2	7	5	2	40	18
Listed items as percent of all items .....	81	84	98	94					

<sup>1</sup> As measured by U. S. exports to Norway.

<sup>2</sup> Totals may not equal sums of items because of rounding.

TABLE 14. EIRE: TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS,  
BY COMMODITIES, APRIL 1948–MAY 1949

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments	Offshore	U. S. shipments	Offshore
			From U. S.	Offshore					
Grains .....	70.3	18.4	18.3	1.7	28	26	2	100	9
Fats and oils.....	9.0	0.1	—	—	—	—	—	—	—
Sugar and products.....	7.7	0.1	—	—	—	—	—	—	—
Fruits and vegetables.....	19.0	0.3	—	0.2	1	—	1	—	67
Feeding stuffs .....	1.4	0.1	—	—	—	—	—	—	—
Fertilizer .....	11.0	—	—	—	—	—	—	—	—
Petroleum and products.....	26.7	0.3	0.1	2.4	9	—	9	33	800
Coal and related fuels.....	32.3	—	—	—	—	—	—	—	—
Nonferrous metals and products..	10.1	—	—	—	—	—	—	—	—
Chemicals and drugs.....	14.6	1.1	—	—	—	—	—	—	—
Iron and steel.....	30.0	2.5	0.2	0.4	2	1	1	8	16
Pulp and paper.....	15.1	0.3	—	0.5	3	—	3	—	167
Fabricated basic textiles.....	72.5	1.8	0.2	—	—	—	—	11	—
Lumber and mfrs.....	16.9	1.5	0.2	0.6	5	1	4	13	40
Machinery and equipment.....	56.5	7.9	1.5	0.3	3	3	1	19	4
Tractors .....	4.1	0.5	0.2	—	5	5	—	40	—
Motor vehicles .....	34.2	4.4	1.7	—	5	5	—	39	—
Tobacco .....	14.2	11.9	6.5	—	46	46	—	55	—
Total listed items <sup>2</sup> .....	445.6	51.2	28.9	6.1	8	7	1	56	12
Total all items.....	619.8	55.2	29.4	6.5	6	5	1	53	12
Listed items as per cent of all items .....	72	93	98	94					

<sup>1</sup> As measured by U. S. exports to Eire.

<sup>2</sup> Totals may not equal sums of items because of rounding.

TABLE 15. ICELAND: TOTAL IMPORTS, IMPORTS FROM THE UNITED STATES,<sup>1</sup> AND ECA-PAID SHIPMENTS, BY COMMODITIES, APRIL 1948-MAY 1949

Commodity	Imports (in millions of U. S. dollars)				ECA Shipments as Per Cent of Total Imports			ECA Shipments as Per Cent of Imports from United States <sup>1</sup>	
	Total	From U. S. <sup>1</sup>	ECA shipments		Total ECA	U. S. shipments	Offshore	U. S. shipments	
			From U. S.	Offshore				Offshore	
Grains .....	3.9	1.1	0.2	0.3	13	5	8	18	27
Fats and oils.....	1.6	0.2	—	—	—	—	—	—	—
Sugar and products.....	1.4	—	—	—	—	—	—	—	—
Dairy products .....	1.4	—	—	—	—	—	—	—	—
Fruits and vegetables.....	1.7	—	—	—	—	—	—	—	—
Feeding stuffs .....	1.4	1.4	0.6	0.1	50	43	7	43	7
Fertilizer .....	1.9	—	—	0.3	16	—	16	—	—
Petroleum and products.....	6.8	2.1	0.1	0.3	6	2	4	5	14
Coal and related fuels.....	3.1	—	—	—	—	—	—	—	—
Fabricated basic textiles.....	7.0	0.5	0.5	—	7	7	—	100	—
Nonferrous metals .....	4.1	—	—	—	—	—	—	—	—
Chemicals and drugs.....	1.9	0.3	—	—	—	—	—	—	—
Iron and steel.....	3.2	0.7	—	—	—	—	—	—	—
Pulp and paper.....	1.8	0.2	0.1	—	6	6	—	50	—
Lumber and mfrs.....	4.1	0.1	—	—	—	—	—	—	—
Machinery and equipment.....	10.4	1.6	1.0	—	10	10	—	63	—
Motor vehicles .....	2.6	1.3	—	—	—	—	—	—	—
Ships .....	6.4	0.6	0.6	—	9	9	—	100	—
Rubber and products.....	0.9	—	—	—	—	—	—	—	—
Cement .....	1.8	—	—	—	—	—	—	—	—
Hides, leather, and furs.....	0.3	—	—	—	—	—	—	—	—
Tobacco .....	1.0	0.1	—	—	—	—	—	—	—
Total listed items <sup>2</sup> .....	68.7	10.2	3.1	1.0	6	5	2	30	10
Total all items.....	76.9	11.5	3.6	1.0	6	5	1	31	9
Listed items as per cent of all items .....	89	89	86	100					

<sup>1</sup> As measured by U. S. exports to Iceland.

<sup>2</sup> Totals may not equal sums of items because of rounding.

Kingdom, Sweden, and Denmark. Offshore shipments to Norway accounted for one third of total ECA-financed shipments from April 1948 to May 1949, and were significantly larger than shipments from the United States of fats and oils, petroleum, and nonferrous metals. From offshore areas, Canada supplied \$5 million, Latin America \$4 million, participating countries \$7 million, and "other" countries \$2 million. Dollar areas furnished about half of Norway's offshore supplies, but as total ECA aid amounted to only 7 per cent of total imports, the problem of shifting to nondollar sources at the end of ECA is not so serious for Norway as for some other countries.

ECA-paid shipments from the United States accounted for about 50 per cent of U. S. exports to Eire, for about 40 per cent of such exports to Norway, and for about 30 per cent of those to Iceland. They accounted for virtually all U. S. exports of grains to Norway and for the greatest part of exports of fats and oils, feeding stuffs, fabricated basic textiles, and tobacco.

Since ECA shipments as proportions of total imports were smaller for these three countries than for other countries, their termination will affect the imports of Norway, Eire, and Iceland less seriously, and also will not greatly affect U. S. exports to these countries. Because these countries have been financing larger amounts of their U. S. imports with their own funds, there would seem to be more chance of them being able to maintain, by cutting back other imports, their imports of commodities presently being financed by ECA.

# Local Currency Proceeds of an Import Surplus

Alex N. McLeod

LOCAL currency proceeds ("counterpart funds") are the proceeds derived by a government or a central bank from (a) the sale of foreign goods or foreign exchange received as a gift, grant, or loan to the national authorities, or (b) the use of exchange reserves. Thus they are the financial counterpart of the import surplus so financed. When supplies are given by one country to another in order to assist in reconstruction or development after some major disturbance (such as a war), the recipient government may, quite appropriately, sell the supplies to its nationals in exchange for local currency, however improper it may seem at first sight that what has been received as a gift or grant should be sold. Presumably the donor country intends the gift or grant for the general benefit of the recipient country, not for particular individuals, and presumably the public has adequate funds in local currency with which to buy the goods. Indeed, if there is active or latent inflation in the recipient country, the public has more than enough money. The sale of the goods for local currency and the accrual of the proceeds to the government are simply means of distributing the goods among users and at the same time retaining the benefit of the gift for the nation as a whole. In the past, certain UNRRA and Lend-Lease supplies (especially food) have been disposed of in this way, and the same is now being done with the supplies provided under the European Recovery Program.

The situation is unchanged in all essentials if, instead of selling the goods, the government uses them directly for its own purposes—for example, food and clothing for the armed forces (as in Lend-Lease), hydroelectric machinery for installation in public power projects, or rolling stock for a government-owned railway. In effect, gifts so used relieve the government of the necessity of making equivalent purchases, so that the gain appears in the first instance as a reduction in outlay rather than as an additional receipt. Sound accounting practice, nevertheless, requires that the transaction be recorded as a receipt of the gift and an equal expenditure for the armed forces, public works, railways, or whatever service was involved. The recorded receipt would be equivalent in all respects to the local currency proceeds of the sale of goods to the public, though it would be

less likely to give rise to misunderstanding, since it would be associated only with a public benefit and not at all with any expense to a domestic national.

If the gifts are in foreign exchange rather than in kind, the situation is no different. The recipient government may sell the foreign exchange to its nationals (typically, to importers) in the same way as it might sell goods received, and obtain local currency for it. Or it may sell the foreign exchange to the central bank, again for local currency; the central bank would then presumably in turn sell the foreign exchange to importers, and the situation would be in all respects identical with that in which the government sells the exchange to importers directly. Finally, the recipient government may use the foreign exchange to purchase abroad goods and services without the expenditure of other resources, and there would be a saving of outlay in local currency, which is equivalent to a local currency receipt. Indeed, as with gifts in kind, sound accounting practice would require that the receipt of the exchange be recorded at the equivalent in local currency, and that its expenditure be charged to the appropriate account.

The mechanics of the accrual of local currency proceeds from a loan are exactly the same as when a grant is received; the only differences arise from the fact that equivalent value is subsequently to be returned to the donor country. The future liability which the government has to meet on account of the goods financed with the loan should prevent any misunderstanding from arising over the fact that the goods are not given free to the public, and the accounting procedures called for in order to record this liability may differ somewhat from those used in a grant. These matters do not, however, affect the accrual of the local currency proceeds arising from the sale or use of the goods.

Finally, it should be noted that local currency proceeds also arise when the authorities allow a country's exchange reserves to be depleted. If the reserves are sold to private importers and others having payments to make abroad (including the government), obviously the monetary authorities receive domestic currency in exchange. Thus the monetary authorities receive either local currency proceeds or equivalent value from the depletion of the exchange reserves. There is indeed a slight technical difference in the accounting procedure; the local currency proceeds will appear not as the accumulation of an asset in the hands of the government (e.g., by additions to bank balances), but rather as the elimination of a liability of the monetary authorities.<sup>1</sup> Specifically, purchasers of exchange must pay in either

<sup>1</sup> If the foreign exchange was carried as an unencumbered asset of the government, its expenditure will involve a reduction of the government's cash holdings in much the same way as the expenditure of local currency.



the currency notes of the monetary authorities, drafts on their deposits with the same authorities, or drafts on their deposits with other banks. The first two types of payment obviously reduce the liabilities of the monetary authorities, and the third will have a similar effect since, in the absence of other offsetting transactions, such as borrowing from or rediscounting with the monetary authorities, the other banks can honor their drafts only by drawing on their balances with the authorities.

## Policy Implications for the Country's Economy

### *Official sector*

For the sake of simplicity and concreteness, let us discuss the matter in terms of international grants and loans, such as those under the European Recovery Program. In its essence this program is an undertaking by the participating European Governments, with outside (mainly United States<sup>2</sup>) assistance in the form of grants and loans, to expand their own productive capacity according to an agreed program. The beneficiaries undertake to make the fullest possible use of their own resources, including efforts to achieve internal financial stability and to expand international trade. On the basis of this program, the needs of Europe for outside aid are calculated.

Expressed in real terms the objective is relatively simple to understand, however difficult it may be to achieve: it is to use the economic aid made available so as to raise the productivity of the recipient nations in the most effective manner. Fundamentally, ERP is a plan to provide a net addition to the real resources available from current production in the recipient countries, thus making it possible to expand either private consumption, current governmental services, government (or government-controlled) investment, or private investment.<sup>3</sup> In general, the greater part of the additional resources should be used for investment, since the purpose of the program is to assist the recipients to reach a high level of production more rapidly than would otherwise be possible. In practice, however, it is quite impossible to determine the actual net effect of the import surplus, because in all likelihood every aspect of the community's use of real resources is affected by ERP aid. Without this assistance it would undoubtedly

<sup>2</sup> Aid from the United States is administered by the Economic Cooperation Administration (ECA).

<sup>3</sup> It should be noted that the country's real income may be increased by more than the equivalent of the ERP aid. For example, production might otherwise be hampered by the lack of certain key materials or equipment obtainable only in return for a currency in particularly short supply in the given country.

have been necessary to reduce the volume of imports, perhaps by as much as the amount of ERP aid. In some countries, investment would have had to be sharply contracted; in others, consumption would have probably suffered further restriction. On the whole, however, it is not unreasonable to assume that the volume of investment is being sustained at a level that exceeds, by the amount of ERP aid, what it would otherwise have been.

While the policy implications of ERP aid are clear enough in real terms, the proper integration of local currency proceeds into general financial policies must be given careful attention. The first and most important point to recognize is that the accrual of counterpart funds does not make possible the undertaking of new projects that were not part of the original program; they are simply the financial reflection of real resources already received and integrated into the economy. Secondly, when goods are received from abroad as a result of foreign aid and are sold within the country for local currency, a net deflationary (or anti-inflationary) effect is produced; for, unlike the case of an additional flow of goods arising from expanded local production, no equivalent sum is added to the income of the public in the form of wages, rents, etc. Local currency proceeds thus have a direct bearing on the inflationary situation, and their use must therefore be continuously coordinated with budgetary, monetary, and price policies.<sup>4</sup> Obviously the beneficial effects of the import surplus in eliminating inflation can be offset by undesirable policies affecting government expenditure and investment. Nevertheless, this policy integration should not prove difficult as long as the central fact about local currency proceeds is kept in mind, namely, that they are simply the financial counterpart of foreign aid already received and incorporated in production and therefore do not constitute a resource for additional expenditure. Nor should aid received under ERP be used by the recipients as a means for relaxing their own efforts at self-help; on the financial side, this means that they should not reduce their efforts to finance government expenditure and normal investment by taxation and saving. In general, however, a country cannot pursue a really aggressive reconstruction program without generating some inflationary pressures, and the proper use of local currency proceeds can be of material assistance in combating them.

<sup>4</sup> In this connection, the magnitude of ECA aid relative to the national income is of special significance (based on a comparison of ECA aid for the year ended April 30, 1949 and national income for the calendar year 1948). In Great Britain, where net ECA aid was of the order of 3 per cent of the 1948 national income, its effect on the inflation situation, while not negligible, is nevertheless limited. In the Netherlands, where net ECA aid was of the order of 6 per cent of the national income, its effect on the inflation situation is much greater.

The most effective integration of local currency proceeds with other financial policies in any given country will depend to some extent on the nature of the inflationary situation. If there is still *continuing inflation* (whether it is allowed to work itself out at once in the form of rising prices, or is kept latent by economic controls), the obvious use for local currency proceeds is to substitute them for inflationary financing. If the government is responsible for the inflationary finance, it should use the local currency proceeds directly, in replacement of new bank borrowing. If the government's budget (ordinary, investment, and state enterprise account combined) is already being covered by taxes and by borrowing from the public, and if it is the private sector of the economy that is resorting to inflationary methods of finance (the expansion of bank credit), the local currency proceeds should be transferred directly or indirectly from the government to the private sector. The government might lend the money to the industries in question, thus relieving them of the need to borrow from the banks; this would have the advantage of letting the government channel the funds to the most essential projects, and reduce the danger that less essential uses might intercept them. Or the government might allow the private sector to continue borrowing from the banks, but offset this by repaying government debt held by the banks. Or, finally, it might use the local currency proceeds to repay debt held by the public, in the expectation that funds would then become available through the capital market for financing private industry, though there is the danger that the public would use some of the funds for increased consumption instead.

If there is only *latent inflation* in the country, and if it is *not increasing*—that is, if excess liquid resources exist but are stable or declining—the local currency proceeds may best be used to reduce the money supply by repaying debt held by the banks. Since there is no tendency toward a net expansion of bank credit to finance either the public or the private sector of the economy, there is no question of using the local currency proceeds to obviate such expansion, and no presumption of a need to make them available directly or indirectly to the private sector. By hypothesis, both sectors are adequately financed by taxation and by voluntary current savings. A qualification should be noted, however; in practice it may not be possible to carry out completely the elimination of excess liquid balances. If these balances were fairly widely distributed, and easily transferable through the sale of securities, excess liquidity could be reduced by the full amount of the local currency proceeds not used for public expenditure and investment. Some part of the public will, however, continue to hold excess funds to finance their future consumption and investment. Some fric-

tion must therefore be expected, which will mean that, despite excess liquidity of the public as a whole, part of the private investment may have to be financed by new loans from the banking system.

Finally, the country may be free of inflation in any form. In such a case, funds equivalent to the accumulating local currency proceeds must be returned to the community, or the cash balances of the public will fall short of what is needed to finance production and the consumption and investment of the available supply of goods. The local currency proceeds may be handed back directly by the government in income payments, or may be made available indirectly through the creation of alternative funds by the banking system. It is quite conceivable, and even proper, that some of the funds should be used by the government to finance its own investment, including that of state enterprises. It is conceivable, too, that the local currency proceeds would be used from time to time by the government to finance private investment. It does not follow, however, that it is the actual local currency proceeds which must be made available for investment.

In a country in which institutional arrangements provide adequate facilities for financing private investment, there may in fact be distinct advantages in permitting private investment to continue to be financed through the usual channels. The investment bankers are familiar with the problem of raising capital for private enterprises, the commercial banks are familiar with the problem of providing bank credit to the same borrowers, and there is no special reason for superseding these financial agencies in the provision of funds for investment merely because the government has the local currency proceeds at its disposal. Under such circumstances, it would be preferable to place the banking system and the general public in a position to provide the finance requisite for investment. This could be done by using the local currency proceeds to repay government debt in the hands of individuals or the banks. In this way, funds would come into the hands of private investors in return for the bonds they hold, and these funds would be available to purchase new issues of private securities. The lending power of the banking system would also be restored by the repayment of government bonds. While the amount of debt repaid to the banking system and the public, respectively, might not conform precisely to the demands for loans from these two sources, means would be available to establish proper relationships. Individuals might place as bank deposits some of the funds received in return for bonds. The banks, in turn, if they found they had too much cash, might use some of their funds to purchase privately-held government and other bonds. Such adjustments could reasonably be expected in a well-organized financial system.

Thus, while the appropriate monetary policy connected with local currency proceeds differs for countries according to their situation with respect to inflation, the general principles which should determine the disposition of these proceeds are much the same everywhere. In general, the most convenient means of disposing of the local currency proceeds is probably to repay government debt, subject only to the possible need to finance government investment through use of these funds. It is as the debt is retired that the essential differences in policy appear. In countries without inflation of any kind, it will be necessary to restore the cash holdings of the public; in countries working off latent inflation, there may be little need to restore these holdings.

### *Private sector*

As far as the day-to-day decisions of individual consumers and businessmen are concerned, the existence of local currency proceeds has no direct effect whatever. The consumption and investment of the community are adjusted by the public on the basis of income, the level of output, and other factors, modified perhaps by government policy relating to consumption and investment. The financing of an import surplus by ECA does not act directly to influence the desire of the public to consume and to invest. The flow of imports is continuously integrated into the economy in the usual way, just as if the goods were paid for by exports. Only when the aggregate supply of available goods is considered does it become clear that the behavior of the community would have had to be different without aid such as ECA is now making available to Western Europe.

To the extent that private firms and individuals undertake investments, they have two problems: to acquire the real resources necessary for the investment, and to find financing for the investment. The real resources available to the community for investment are determined by production, the import surplus, the amount of real resources that must be used for consumption and for government outlay, and the country's policy in restraining aggregate investment to prevent inflation. The import surplus means that more real resources are available to meet these various demands, and therefore makes possible increased real investment. As far as individual persons or business firms are concerned, however, they know only whether or not the goods are to be had, not how they became available. Nor are their financial problems altered, directly at least, by the existence of an import surplus or the accrual of counterpart funds; they must pay for the investment goods in the normal way. If they had previously had government aid (e.g., in connection with war damage),

they may expect the financing of such investment to be provided by the government. If they have customarily financed their new investment out of profits, they will expect to continue to do so. If they had ordinarily borrowed from the banking system or from the public, this practice will be continued. In brief, the problem of financing for private firms and individuals appears to them as part of the process of investment and is not directly affected by the existence of an import surplus or the accumulation of local currency proceeds as a consequence of the import surplus. It may be indirectly affected by the monetary effects of accumulating local currency proceeds, but this is only a special case of the rather obvious fact that the financing of investment is always affected by monetary policy.

In the aggregate it is clear that the community can undertake only as much investment as would have been possible without foreign aid, supplemented by the additional investment foreign aid permits. It is easy to assume that the accumulation of funds by the monetary authorities, in the form of local currency proceeds of the import surplus made possible by ECA aid, provides a means of undertaking additional investment, but in fact this is not so. The local currency proceeds are no more than the financial sign of the physical integration of the import surplus into the domestic economy; the aggregate supply of goods and the use of the available supply for consumption and government outlay are what determine the amount of investment that the community can undertake without encouraging inflation. Any attempt to add to the volume of investment determined in this way, by further use of local currency proceeds, could only have the effect of adding to the inflationary pressure.

The banking system (to the extent that it may be considered part of the private sector of the economy) deserves some special comment. The accumulation of local currency proceeds by the government and their use to retire debt held by the central bank, the other banks, or the public may cause temporary shortages of bank reserves and similar disturbances. In general, however, these will be merely technical difficulties; the authorities should be aware of the possibility of trouble of this kind, but normal central banking techniques should be adequate to cope with the matter unless unreasonably large and sudden movements of local currency proceeds are attempted. What will usually be required is a shift of assets among the central bank, the other banks, and the public. Under the circumstances, the banks are likely to have large holdings of government bonds, so that no serious transfer difficulties need arise.

## Use of Local Currency Proceeds under ERP

This analysis may conveniently be concluded by a summary statement of the uses to which the local currency proceeds accumulated under ERP have in fact been put. As of October 31, 1949, a sum equivalent to \$4,056 million had passed into the local currency accounts subject to the control of the various countries. The total amount released up to the same date was \$2,537 million. Of this, \$1,069 million was released for debt retirement purposes, \$1,307 million for various undertakings that may be regarded more or less as investment—promotion of production, reconstruction projects, and development of strategic materials—and the remainder for other purposes, mainly relief.

The use of these funds for specific investment projects calls for some comment. If these investments are new projects entered into in the belief that the local currency proceeds represented free resources, then they have really been financed by inflationary means, to the extent that by charging them to local currency proceeds the anti-inflationary effect of these proceeds has been offset to an equivalent amount. If, on the other hand, they represent merely an arbitrary linking of certain expenditures properly incorporated in the investment program that ERP was designed to permit, they are merely examples of a relatively harmless but not very meaningful practice sometimes followed whereby particular expenditures are arbitrarily linked to particular receipts.

# Terms of Trade in Latin American Countries

J. Ahumada and A. Nataf

**T**HE MOVEMENT of the terms of trade of a country or an area is measured by means of the ratio of two index numbers: an index number of the prices received for exports and an index number of the prices paid for imports. Variations in the terms of trade may be said to measure changes in the quantity of imports which can be obtained in exchange for a given quantity of exports. When export prices have risen more or fallen less than import prices and when, accordingly, the quantity of imports that can be obtained for the same quantity of exports is greater than in a given base period, the terms of trade of a country or an area are said to be more favorable than in the base period. The converse is true when export prices have risen less or fallen more than import prices. It should be borne in mind that the term "favorable" (and, conversely, "unfavorable") has significance only if used in conjunction with a specified base period; this point is of particular importance because of the sharp difference in prices between the two prewar years, 1937 and 1938, which are most commonly used as base years.

Movements in the terms of trade of a country constitute an important element in changes in a country's balance of payments position. But they are not the sole factor of importance. The volume of exports which can be produced or for which a market can be found abroad, the availability of foreign loans, the possibility of obtaining imports promptly in the quantities desired at current prices, the flow of foreign exchange from the tourist trade, and other invisible items are also among the many factors that play an important, and often decisive, role in determining the position of a country's balance of payments. This paper, however, is limited to the terms of trade of Latin American countries and their measurement; no attempt has been made to discuss other factors. The period studied was undoubtedly an exceptional one. For the reasons indicated below, it would in any event be a mistake to attach too much importance to the apparently precise figures which emerge from the analysis that has been made. The margin of error is necessarily great; the study may, however, be accepted as on the one hand indicating the widely divergent experiences of the Latin American countries and on the other hand illustrating the effectiveness of the techniques available for studying the terms of trade.



## Statistical Problems

The paucity of data on the terms of trade for most countries in the world is due primarily to the statistical and conceptual difficulties involved in establishing adequate statistics. These difficulties are of extraordinary complexity. A rather detailed treatment of the problems has been presented in "Relative Prices of Exports and Imports of Underdeveloped Countries: a Study of Postwar Terms of Trade between Underdeveloped and Industrialized Countries,"<sup>1</sup> prepared by the Secretariat of the United Nations for the Subcommission on Economic Development; and for most of the problems, reference to this study may be sufficient.

The question of weighting, however, requires further attention. In the computation of an index of prices for a series of years, e.g., 1938, 1946, 1947, and 1948, there are two alternative methods of weighting. According to one method, weights are chosen from the base year (for instance, 1938), in which case the index is called a "Laspeyre index," i.e., "an index with base year weights." According to the other, a different set of weights is used for each year, in which case the index is called a "Paasche index," i.e., an "index with current year weights." The two types of index measure two different things. If 1938 and, say, 1946, are the years under consideration, a Laspeyre index of import prices would compare the cost of the imports of 1938 with what they would have cost if purchased at 1946 prices, while a Paasche index would compare the cost of the imports of 1946 with what they would have cost if purchased at 1938 prices. The two indices normally yield somewhat different results, and a preference between them can be established only by reference to the use to be made of the indices. In normal times, and especially if two successive years are compared, the difference between the two indices is usually very small; but in many comparisons over a longer period, especially between prewar and postwar years, when great changes have occurred both in the composition of trade and in the relative prices of many commodities, the difference turns out to be quite large. For this reason both types of index have been computed in this study, whenever the statistical material permits.

## Methodology

An analysis is first made of changes between 1938 and 1946 in the terms of trade of a number of Latin American countries. This information is then generalized for Latin America as a whole, is compared

<sup>1</sup> E/CN.1/sub.3/W5.

with other information on the prices of exports and imports of Latin America, and is extended both backward (to 1925) and forward (to 1948).

The year 1938 has been selected as the base year, since it was the last complete prewar year. Moreover, it is the base year used in other studies on the same subject, and comparisons are therefore possible. It was, however, a year of unusually low raw-material prices, and cannot be considered as a "normal" prewar year. The year 1946 is the latest for which a reasonably complete set of statistics was available at the time the study was undertaken (1948). It is in many respects unfortunate that 1946 data, rather than 1947 data, had to be used, not only because the 1946 data refer to a situation more than two years past, but also because the movement of commodities in international trade and of the corresponding prices then reflected, in many cases, unusual wartime shortages and stopgap measures to overcome such shortages which have since disappeared, or at least have become of much less significance.

Fairly complete data are available for calculations of the terms of trade for eight countries: Argentina, Brazil, Chile, Colombia, Cuba, Guatemala, Mexico, and Peru.<sup>2</sup> The use of price indices for individual export commodities and for groups of import commodities obtained from the analysis of these eight countries, together with appropriate weights, made possible estimates of the terms of trade for five additional countries: Bolivia, Costa Rica, Ecuador, Nicaragua, and Venezuela. Because statistics were not available in sufficient detail, estimates of the terms of trade for the other Latin American republics could not be made.

In most cases, export and import price indices were computed on the basis of unit values in terms of dollars derived from official trade statistics. Unit values are the quotients of reported values and reported quantities. Fluctuations in unit values may differ substantially from actual price fluctuations in exports and imports for a number of reasons: because of the classification of the original trade statistics in categories which often make it impossible to take account of changes in the relative importance of the groups covered by each category; because of inaccurate declarations of value and quantity by importers or exporters; because of statutory valuations (irrespective of market

<sup>2</sup> Detailed calculations have been made for these countries, but they are not included in this paper.

Argentine import and export values in 1938 were based on arbitrary official valuations which did not correspond to market values. It has therefore been impossible to calculate satisfactory group price indices though the recorded dollar values of imports and exports have made possible the calculation of general price indices.

values) prescribed by the government for the purpose of trade statistics; or because of the inappropriate treatment of values in countries where there are multiple currencies. In the calculations which underlie the present study, only such data have been used as are believed to be sufficiently specific and accurate to permit significant conclusions, and the resulting indications of price movements have been checked against other relevant information.

Even if data on the terms of trade are computed with the greatest care, however, the figures will still, in many cases, be subject to a margin of error of 10 or perhaps 20 per cent. Thus if the terms of trade are found to be 105 compared with a certain base period, there is some presumption of an improvement but the evidence is definitely weak; similarly a figure of 95 provides only a weak presumption of a deterioration. Figures of the order of 115 or 85, on the other hand, might be accepted with a much higher degree of confidence as indicating improvement or deterioration.

In the trade statistics used, imports are valued c.i.f. and exports f.o.b. Thus shipping and other transportation costs, which have risen more than the cost of imported commodities, are included in the import data but not in the export data. Nevertheless, the statistics in this form provide terms of trade data that are relevant to Latin American countries, since both the imports and exports of these countries are for the most part carried in foreign bottoms.

For each country the commodities were grouped in classes which seem to be meaningful from an economic point of view. Obviously, however, any classification of this nature cannot provide homogeneous groups containing the same goods for different countries. The classes selected are as follows:

Imports	Exports
(a) Foodstuffs, beverages, and tobacco	(a) Foodstuffs
(b) Textiles and clothing	(b) Metals and minerals
(c) Durable consumers' goods	(c) Fuels
(d) Machinery and equipment	(d) Other raw materials
(e) Raw materials and semimanufactures	(e) Other exports
(f) Other imports	

The approximate content of most of these groups is self-evident. Among imports, radios and automobiles and their parts, as well as household equipment, are included in group (c). The general classifications could not be followed exactly for Bolivia, Costa Rica, Ecuador, Nicaragua, and Venezuela, but the classifications that were used approximate those indicated above.

Price indices for individual commodities were combined into group indices according to both the Laspeyre and the Paasche methods (to

the extent that the necessary information was available), and the group indices were combined, also by both methods, into indices for total exports and total imports.

### Country Comparisons

The changes in the terms of trade of the Latin American countries show wide divergencies from country to country. In the period covered, i.e., between 1938 and 1946, the data indicate a substantial improvement for some countries and a significant deterioration for others, while for a third group the changes are not large enough to justify any conclusions. The differences among the various countries can be explained largely in terms of the composition of their exports and imports and the specific markets to which each country is related. It is useful, therefore, to consider first the movements in export prices and import prices separately, and then the net result of the two, that is, the terms of trade.

#### *Export prices*

Between 1938 and 1946 the export prices of foodstuffs and of "other" raw materials rose, on the average, more than the export prices of minerals and fuels (Table 1). Very large increases of the food price indices occurred in Peru, Chile, Ecuador, and Brazil. In Peru, the rise was due almost exclusively to a rise in sugar prices, which in some markets other than the United States rose by more than 600 per cent. In Chile, it resulted from a sharp increase in bean prices, whose index rose to 881 in 1946 (the second largest increase for foodstuff prices found in this study). In Ecuador, it was due to the increase in world cocoa prices and in Ecuador's export price for coffee. This rise in coffee prices, which exceeded that of any other coffee exporting country, can be explained in terms of shifts in markets and apparently because the price of low quality coffee rose faster than that of high quality coffee. Before the war, Ecuadoran coffee, which is of low quality, was sold in Spain, a low-price market, but in 1946 the level of world demand made it possible for Ecuador to export its coffee to high-price markets. This shift did not affect other coffee exporters to the same extent as those in Ecuador.

For the group, "Other Raw Materials," which includes such agricultural materials as cotton, hides, wool, timber, and oilseeds, the indices of all countries except Chile showed substantial increases. The relatively low figure for Chile is a consequence of the heavy weight of wool exports, whose price index rose to only 131 (1938=100) in 1946.

There is close agreement among the indices of prices of minerals, the low figure for Nicaragua being due to the large weight of gold exports of that country.

TABLE 1. EXPORT PRICE INDICES, 1946, AND RATIOS OF COMMODITY GROUPS TO VALUE OF TOTAL EXPORTS, 1938, FOR SELECTED LATIN AMERICAN COUNTRIES

Country	Export Price Indices, 1946 <sup>1</sup> (1938 = 100)					Per Cent of Value of Total Exports, 1938 <sup>2</sup>			
	Total exports	Food- stuffs	Raw materials			Food- stuffs	Raw materials		
			Minerals	Fuels	Other		Minerals	Fuels	Other
Brazil <sup>3</sup> ....	277	285	—	—	258	60	—	—	34
Ecuador ....	268	315	—	103	351	57	—	20	14
Argentina ..	258	...	...	...	...	..	..	..	..
Cuba .....	233	236	—	—	—	96	—	—	—
Colombia ..	200	230	—	119	—	68	—	26	—
Costa Rica..	195	195	—	—	—	97	—	—	—
Guatemala ..	195	192	—	—	—	97	—	—	—
Peru .....	195	733	148	120	206	8	42	31	19
Bolivia ....	193	—	193	—	—	—	92	—	—
Mexico ....	192	209	133	160	227	18	59	12	11
Nicaragua ..	178	194	115	—	280	65	27	—	8
Chile .....	163	359	140	—	176	9	81	—	10
Venezuela ..	160	—	—	160	—	6	—	92	—

<sup>1</sup> Based on data in terms of dollars; 1938 weights.

<sup>2</sup> In the computation of these data, minor items have been disregarded in most cases. A dash in column indicates that the value of the commodity group was less than 5 per cent of total exports in 1938. Dots indicate that data are not available.

<sup>3</sup> Export price indices (1938 = 100) for manufactures and for "other exports" in 1946 were 341 and 274, respectively. These two groups accounted for 4 per cent of total exports in 1938.

### *Import prices*

In general, import prices in those countries whose imports were largely foodstuffs and textiles rose more than the prices in countries where these imports were relatively small (Table 2). In some countries, however, such as Chile and Peru, where the proportion of food and textiles imported was not particularly large, the prices of these commodities rose so substantially that the general import price indices of these countries were also high.

There were considerable differences among countries with respect to changes for the same food products. For instance, the price index

TABLE 2. IMPORT PRICE INDICES, 1946, AND RATIOS OF COMMODITY GROUPS TO VALUE OF TOTAL IMPORTS, 1938, FOR SELECTED LATIN AMERICAN COUNTRIES

Country	Import Price Indices, 1946 <sup>1</sup> (1938 = 100)						Per Cent of Value of Total Imports, 1938 <sup>2</sup>				
	Total imports	Food-stuffs	Textiles	Durable consumers' goods	Machinery and equipment	Raw materials and semi-manufactures	Food-stuffs	Textiles	Durable consumers' goods	Machinery and equipment	Raw materials and semi-manufactures
Bolivia .....	237	—	—	—	—	—	30	16	—	29 <sup>3</sup>	25
Cuba .....	234	299	220	151	168	183	41	14	5	8	27
Ecuador .....	227	—	—	—	—	—	14	22	—	24 <sup>3</sup>	29
Peru .....	217	307	319	203	162	203	16	10	6	26	29
Argentina .....	215	—	—	—	—	—	—	—	—	—	—
Brazil .....	200	354	344	191	163	164	16	2	7	25	42
Chile .....	198	354	280	171.5	138	175	12	11	9	28	40
Colombia .....	190	252	257	158	170	188	7	17	10	25	29
Nicaragua .....	190	—	—	—	—	—	12	32	—	19 <sup>3</sup>	23
Costa Rica .....	175	—	—	—	—	—	16	17	5	19	26
Guatemala .....	175	177	251	148	132	159	8	19	5	19	33
Mexico .....	169	271	220	176	152	150	10	6	8	20	33
Venezuela .....	168	—	—	—	—	—	12	11	—	50 <sup>3</sup>	13

<sup>1</sup> Based on data in terms of dollars; 1938 weights.

<sup>2</sup> In the computation of these data, minor items have been disregarded in most cases. In this table and Table 3, dashes indicate that data are not available.

<sup>3</sup> Includes durable consumers' goods.

of wheat in 1946 rose to 337 (1938=100) in Brazil, to 331 in Peru, and to 167 in Colombia. Generally the countries which could import wheat from the United States paid lower prices than those which imported it from Latin American countries.

The textile price indices for 1946 show a rather close agreement for all countries except Brazil. Brazilian textile imports are mainly clothing, and very little cotton cloth is imported. Furthermore, Brazilian statistics are not available in sufficient detail to yield a reliable index. For most of the other textile importing countries, Japan was an important supplier in 1938, but this source had been replaced by certain Latin American countries in 1946. Mexico and Cuba, on the other hand, imported most of their textiles from the United States both before and after the war; this explains the relatively small increase in the price indices for Mexican and Cuban textile imports.

The machinery and equipment group contains many commodities which are not classified in sufficient detail in the trade statistics to assure the significance of the price comparisons obtained. Nevertheless, for each country except Chile the group index is considered reliable. A check of the results against indices of U. S. export prices of machinery and equipment suggests that the rise indicated by the price index for Chilean imports of machinery may be underestimated.

The relatively low indices for import prices of raw materials and semimanufactures in Brazil, Chile, Guatemala, and Mexico are in large part due to imports of fuel and steel products, while the relatively high figures for some other countries are explainable in terms of imports of textile raw materials and of timber.

### *Terms of trade*

The most pronounced improvement in the terms of trade (Table 3) was in Brazil, a country with large exports of food and nonmineral raw materials, and with relatively small imports of textiles and foodstuffs. On the other hand, Bolivia, Chile, Peru, and Venezuela, which have large exports of fuels and minerals and large imports of foodstuffs and textiles, show a tendency toward a deterioration in their terms of trade. For Cuba there was no significant change, although exports of food were high in relation to imports of food and textiles. Sugar exports were sold in a controlled market while food imports were bought in noncontrolled markets. Furthermore, Cuban food imports are heavily weighted by such items as rice, whose price rose substantially in relation to other food prices.

As shown in Table 3, there are only minor differences between the indices for export prices calculated according to the Laspeyre and the Paasche methods. For import prices, on the other hand, the Paasche

index is systematically lower than the Laspeyre index, by as much as about 20 per cent for Brazil, Colombia, and Peru. The terms of trade measured by the Paasche indices are therefore more favorable than those based on the Laspeyre indices. But while the Laspeyre formula may tend to give a downward bias to the results of this study, this is offset somewhat by the upward bias resulting from the use of 1938 as the base year.

TABLE 3. INDICES OF TERMS OF TRADE OF SELECTED LATIN AMERICAN COUNTRIES, 1946  
(1938 = 100; data in terms of dollars)

	Laspeyre Indices <sup>1</sup>			Paasche Indices <sup>2</sup>		
	Export prices	Import prices	Terms of trade	Export prices	Import prices	Terms of trade
Brazil .....	277	200	138	279	166	168
Argentina .....	258	215	120	—	—	—
Ecuador .....	268	227	118	—	—	—
Mexico .....	192	169	114	—	162	—
Costa Rica .....	195	175	111	—	—	—
Guatemala .....	195	175	111	199	166	119
Colombia .....	200	190	105	206	157	131
Cuba .....	233	234	100	223	209	107
Venezuela .....	160	168	95	—	—	—
Nicaragua .....	178	190	93	—	—	—
Peru .....	195	217	90	217	180	121
Chile .....	163	198	82	163	187	87
Bolivia .....	193	237	81	—	—	—
Latin America as a whole <sup>3</sup> ....	219	202	108	—	—	—

<sup>1</sup> Index with base year weights.

<sup>2</sup> Index with 1946 weights.

<sup>3</sup> Weighted average of country indices.

### Latin America as a Whole

An estimate of the terms of trade for Latin America as a whole is of interest, in view of the divergent results obtained for individual countries. One estimate has been obtained by weighting the import and export price indices computed for individual countries by the values of their 1938 imports and exports. In the absence of Paasche indices for most countries, the index for Latin America as a whole has been computed on the basis of Laspeyre indices only.<sup>3</sup>

<sup>3</sup> The countries covered accounted for 90 per cent of Latin American trade in 1938.



The result of this calculation is an export price index for Latin America as a whole, in terms of dollars, of 219 (1938=100) for 1946, and an import price index of 202. The resulting terms of trade in 1946 on the 1938 basis would therefore be 108.

Both the import and export figures include intra-Latin American trade. It may be assumed that price changes between 1938 and 1946 in such trade have similar effects on both the import and the export price indices for Latin America as a whole. Elimination of this equal element from the two indices would yield a figure of 110 (1938=100) for the terms of trade of Latin America with the outside world. In this connection, it is worth mentioning that prices in intra-Latin American trade appear to have increased more than prices in the trade of Latin American countries with the outside world. Countries such as Mexico and Venezuela, which drew only a very small percentage of their imports from other Latin American countries in 1938,<sup>4</sup> show a very low import price index (Mexico 169, Venezuela 168), whereas Bolivia, the country with the highest percentage of imports from Latin America,<sup>5</sup> showed the highest import price index (237).

A second, somewhat rougher, computation of the terms of trade for Latin America as a whole, was made by the following method.

### *Export prices*

The bulk of Latin American exports to the outside world is made up of a relatively small number of commodities. For these commodities the relevant changes in world market prices between 1938 and 1946 may be estimated on the basis of U. S. wholesale price quotations (Table 4).<sup>6</sup> On this basis the average price increase is 100 per cent, against the average increase of 119 per cent in the export price index derived above. The difference appears to be due mainly to exports by Latin American countries to each other and to countries other than the United States at prices far above U. S. wholesale prices, especially in the first half of 1946, when ceiling prices still applied in the United States. Thus the Cuban export price index (1938=100) of sugar in 1946 averaged 42 per cent, the Brazilian coffee export price

<sup>4</sup> One per cent of Venezuela's imports, and less than one per cent of Mexico's imports, in 1938 were from other Latin American countries.

<sup>5</sup> 23 per cent in 1938.

<sup>6</sup> With the exception of copper for which the average U. S. import price excluding import duty was used, it would have been slightly preferable to use the net, rather than the gross, exports of Latin America, i.e., after deduction of exports from one Latin American country to another; the figures of net exports were, however, more difficult to obtain and their use would not significantly affect the weighting coefficients.

17 per cent, and the Chilean nitrate export price 8 per cent higher than the corresponding U. S. wholesale prices used. The discrepancies were probably less important in 1947 and 1948.

TABLE 4. PRICE INDICES OF PRINCIPAL LATIN AMERICAN EXPORT COMMODITIES, 1946, AND RATIOS OF COMMODITY VALUES TO TOTAL VALUE OF LATIN AMERICAN EXPORTS, 1938

Commodity	Price Indices, 1946 <sup>1</sup> (1938 = 100)	Per Cent of Value of Total Exports, 1938
<b>Foodstuffs</b>		
Coffee .....	240	17
Sugar (raw) .....	159	10
Meat <sup>2</sup> .....	254	7
Wheat <sup>2</sup> .....	276	6
Corn <sup>2</sup> .....	264	5
Cacao .....	219	2
<b>Minerals</b>		
Petroleum .....	117	15
Copper .....	152	8
Silver .....	186	3
Lead .....	171	2
Nitrates .....	122	2
Zinc .....	189	2
Tin .....	129	1
<b>Other raw materials</b>		
Cotton .....	340	6
Wool <sup>2</sup> .....	151	6
Flaxseed .....	220	5
Hides .....	156	3
Weighted average index.....	200	

<sup>1</sup> Based on data in terms of dollars.

<sup>2</sup> For these commodities, which are the main exports of Argentina, the U. S. price in the last quarter of 1946, after the lifting of controls, was used rather than the average for the year. Even these prices are probably lower than those obtained by Argentina in 1946.

### *Import prices*

Since Latin American imports from the outside world are mainly manufactured products from the United States and the United Kingdom, an indicator of the changes in prices of these imports can be obtained by averaging, with appropriate weights, the index numbers of the unit values of exports of manufactured products from these two countries. The proper weights would be approximately 3 for the United States and 1 for the United Kingdom for recent years, and relatively larger weights for the United Kingdom in earlier years. This calculation indicates a 53 per cent increase between 1938 and 1948 in the

import price index for Latin America, which is considerably lower than the 102 per cent increase indicated by the weighted average import price index calculated above.

The discrepancy may be attributed to several factors. The index based on U. S. and U. K. export prices does not take into account the trade among Latin American countries at much higher relative prices. Furthermore, the import unit values used for Latin American countries necessarily take account of the increase in cost due to the compulsory substitution of more expensive U. K. or U. S. commodities for commodities that had been imported from Germany or Japan before the war. Finally, a small part of the discrepancy may be due to the fact that the export price indices for the United States and the United Kingdom are based on f.o.b. prices, and that freight rates, which are included in the c.i.f. prices for imports used above, have increased somewhat more than the prices of imported commodities.

The ratio between the two indices calculated in this section gives an estimate of 130 for the terms of trade. This figure is too high (the direct estimate was 110), primarily because it is based on an import price index which apparently underestimates seriously the increase in Latin American import prices.

### Extrapolation of Results

Whereas it would be very laborious and perhaps impossible to extend the calculations by countries to other years, it is comparatively easy to make an extrapolation, both backward and forward, of the terms of trade for Latin America as a whole calculated according to the second method developed in the preceding section. The results of this extrapolation for a number of significant years are shown in Table 5.

With respect to the export price index it may be assumed that, although the figure for 1946 in Table 4 tends to be too low, similarly derived figures for 1947 and 1948, when U. S. prices were no longer controlled, are less likely to be unreliable. Likewise, the movement for the years before 1938, as derived from U. S. wholesale prices, would seem to be reasonable.

For import prices, the rise between 1938 and 1946, when measured by changes in U. S. and U. K. export prices, is undoubtedly underestimated. On the other hand, the figures for 1947 and 1948, obtained by extrapolating the 1946 figure, no doubt overestimate the rise since 1938; and, in particular, these figures used in conjunction with an export price index which includes only some but not all of the high

TABLE 5. TERMS OF TRADE FOR LATIN AMERICA  
(1938 = 100)

	1925	1929	1933	1935	1936	1937	1938	1946	1947	1948 10 months
Index of export prices.	192	164	87	107	115	131	100	200	281	293
Index of import prices										
Index a <sup>1</sup> .....	142	126	82	93	96	102	100	153	183	195
Index b <sup>2</sup> .....	...	...	...	...	...	...	...	202 <sup>3</sup>	241	258
Terms of trade										
Using index a....	135	130	106	115	120	128	100	130	153	150
Using index b....	...	...	...	...	...	...	...	110 <sup>3</sup>	116	114

<sup>1</sup> Based on U. S. and U. K. export prices of manufactures.

<sup>2</sup> Index a raised by ratio of 202 (the 1946 index of import prices computed from Latin American statistics) to 153 (the 1946 index of import prices computed on the basis of U. S. and U. K. export prices of manufactures).

<sup>3</sup> Figure found by direct measurement.

prices charged in inter-American trade, overestimate changes in the terms of trade.

The terms of trade in 1947 may therefore be estimated to have been somewhere between 153 and 116 (on the 1938 base) and probably nearer the lower of those two figures, and hence somewhat higher than in 1946. For two countries—Argentina and Brazil—for which fairly adequate data are available, the terms of trade in 1947 were better than in 1946, by about 17 per cent for Argentina and 11 per cent for Brazil.<sup>7</sup> Estimates for 1948 indicate little change from 1947.

According to Table 5, the terms of trade of Latin America were more unfavorable in 1938 than in any other year in the period covered. The terms of trade for other individual years are thus more favorable when computed on a 1938 base than when computed on any other base. The terms of trade in 1946, which were 10 per cent above the 1938 level, were 14 per cent below the level of 1937.

<sup>7</sup> The relevant data are as follows (1946 = 100):

	Export price index	Import price index	Terms of trade
Argentina .....	145	123	117
Brazil .....	134	121	111

# The International Trade Organization and the Monetary Fund

Ervin Hexner

THE FINAL ACT of the United Nations Conference on Trade and Employment containing the Charter of the International Trade Organization (ITO Charter, or Havana Charter) was signed at Havana on March 24, 1948. The signing of the Final Act, however, does not imply an obligation to accept the Charter. Many nations are now considering its adoption, but most of them will not take formal action before knowing the final attitude of the United States.

Like the Fund, the ITO aims at achieving nondiscriminatory economic intercourse among nations, limited as little as practicable by exchange or trade restrictions. Both institutions are based on the axiom that only nations whose external financial positions are sound will be reliable partners in nondiscriminatory competitive trading. The drafters of the constitutions of both the Fund and the ITO took it for granted that the social task which the economic process is expected to perform will best be served by institutional arrangements that ensure that private businessmen engaging in foreign trade will not be limited in their transactions by either private monopolistic practices or government restrictions.

The purpose of the present study is to outline the fields and methods of contemplated cooperation between the Fund and ITO. It has not been thought necessary to avoid repetitions where certain items need to be presented in more than one context.

## *Cooperation outlined in Fund Agreement and ITO Charter*

The Fund, according to its Articles of Agreement, "shall cooperate . . . with public international organizations having specialized responsibilities in related fields."<sup>1</sup> The responsibilities of the ITO are very closely related to those of the Fund.

The Fund Agreement itself contains very few references to commercial policy in the narrower sense.<sup>2</sup> The participants in the Bretton

<sup>1</sup> Article X.

<sup>2</sup> Article I, dealing with Purposes of the Fund, enumerates, of course, a number of objectives which are related to commercial policy. Article XIV, on the Transitional Period, suggests in Sec. 2 that members using transitional arrangements shall take all possible measures to develop such *commercial* arrangements as will

Woods Conference attempted to limit the Fund's scope to monetary affairs as far as such limitation seemed practicable, and within that framework to restrictions on payments and transfers in contrast to quantitative restrictions.<sup>3</sup> The Governments taking part in the Bretton Woods Conference emphasized in a separate Resolution on International Economic Problems (No. VII) that, since the objectives set forth in the Fund Agreement cannot be achieved through the instrumentality of the Fund alone, it is necessary to make separate arrangements to facilitate international commerce.<sup>4</sup>

The ITO Charter also provides for effective cooperation with other intergovernmental organizations with related responsibilities (Art. 87). There is no doubt that the Fund is such an organization. A separate article of the ITO Charter is, moreover, devoted to regulating cooperation between the Fund and the ITO, especially as far as the external financial relations of members are concerned (Art. 24). In the extended meetings in London, Lake Success, Geneva, and Havana (dealing with the drafting of the Charter), discussions on balance of payments problems and on Fund relations played a prominent part. Many points were controversial, but the thesis that there should be the closest relation between the ITO and the Fund was never challenged.

Any consideration of the scope of cooperation between the Fund and the ITO must take into account that the objectives of the two organizations are overlapping and complementary, and that the membership of the ITO will broadly correspond to that of the Fund. Cooperation covers, of course, exchange of information, mutual participation in certain meetings, and all the other activities traditionally covered by the word "liaison." It implies that each agency will formulate its policy as far as possible in the light of the policy of the other.

The numerous common objectives and interests of the ITO and the Fund have made many people wonder whether two separate bodies are needed to administer the field of international economic inter-

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facilitate exchange stability. Article XII, Sec. 8, which authorizes the Fund to communicate its views to members, covers also communications concerning their commercial policies. Furthermore, Article IX, dealing with Immunities and Privileges and with freedom of Fund assets from restrictions, refers to all kinds of restrictions, including quantitative restrictions.

<sup>3</sup> The following passage from a Report of Ad Hoc Committee of Commission I, on Exchange Controls on Current Payments (July 12, 1949, CI/AH/RP3) is characteristic of the Bretton Woods atmosphere: "In particular, it was brought out in discussion that the proposed provisions do not contain any language which commits a member country to pursue any given commercial policy and is confined strictly to the question of exchange restrictions on transactions on current account and to discriminatory and multiple currency practices." (*Proceedings and Documents of the United Nations Monetary and Financial Conference*, Vol. I, Washington, D. C., 1948, p. 545.)

<sup>4</sup> *Ibid.*, p. 941.

course, or whether one combined institution embracing both the ITO and the Fund would not be a better solution. Experience of a decade or two will be needed to answer this question. Effective cooperation between the agencies of each Government which represent that Government in the ITO and the Fund is in any event a prerequisite to harmonious collaboration between the two organizations.

### *General notes on ITO-Fund relations*

A few introductory remarks may assist in understanding the somewhat involved network of ITO-Fund relations.

(a) The ITO deals primarily with the international exchange of *goods*. Only a few provisions of the Charter apply to other transactions (e.g., insurance, banking, transport, communication). The Fund's scope covers all international payments and is *not* restricted to payments resulting from merchandise transactions.

(b) Membership of the Fund consists exclusively of countries which assume *formal* responsibility for the conduct of their diplomatic relations. The membership of a metropolitan territory in the Fund covers also all nonmetropolitan territories including those that are autonomous in the conduct of their *external commercial* relations (e.g., Southern Rhodesia). These territories may, however, be members of the ITO in their own right.

(c) The Fund Agreement permits only very few deviations from its fundamental principles by the unilateral action of members (escape clauses). The ITO Charter, on the other hand, permits a considerable number of exceptions allowing to members unilateral action to deal with emergency situations. Withdrawal from the Fund is simple and possible at any time. Withdrawal from the ITO is somewhat more complex.

(d) The Fund has full discretion in approving (or refusing to approve) restrictions on payments for current transactions, including their discriminatory application. The ITO Charter specifies the exact conditions under which the ITO may authorize quantitative restrictions and deviations from the rule of nondiscrimination.

(e) The Fund Agreement provides for "transitional arrangements" in the postwar period. No such general arrangement is contained in the ITO Charter. "Transitional arrangements" in Fund terminology covers restrictions on payments (including multiple currency practices and discriminatory arrangements) maintained (and adapted to changing circumstances) by a Fund member for balance of payments reasons in the postwar period. Only members whose territories were occupied by the enemy are permitted to introduce exchange restrictions under

this provision. In ITO terminology the expression "Exceptional Transitional Period Arrangements" covers the *discriminatory* application of specified import restrictions authorized for balance of payments reasons. The discriminatory application of those import measures can be maintained and adapted only if the member is authorized under the Fund Agreement (or under a special exchange agreement)<sup>5</sup> to use transitional *exchange* arrangements at the same time.

(f) The ITO Charter strictly distinguishes between quantitative restrictions authorized to safeguard a member's external financial position and those authorized for other purposes (e.g., shortages, emergencies, economic development). The Fund Agreement makes no similar distinction with reference to exchange restrictions. However, it seems to be generally recognized that under the Fund Agreement restrictions on current payments (except those to save scarce currencies and on transactions with nonmembers) should serve principally to safeguard the external financial position of a country.

(g) Except for transitional arrangements, restrictions on payments on current transactions with other members are subject to prior approval (or prior consultation) under the Fund Agreement (after March 1, 1952, even transitional arrangements are subject to consultation). The ITO Charter permits much wider possibilities for imposing and maintaining quantitative restrictions without prior consultation with the ITO.

(h) The Fund when applying or enforcing the terms of its Agreement acts *ex officio* (i.e., its action is not conditional upon the institution of a complaint by another member). The ITO usually takes action to enforce compliance with the terms of the Charter only upon receipt of a complaint and when it appears that the interests of the complainant are adversely affected. The sanctions imposed under ITO are intended to compensate the complaining member for disadvantages suffered.

(i) The Fund's members have weighted votes in the administration of the Fund. In all organs of the ITO, the "one country, one vote" system prevails.

### *Commitments of ITO members*

Under the ITO Charter, Fund members joining the ITO assume vis-à-vis each other obligations in respect to their commercial policies. Since these obligations are important also from the standpoint of the

<sup>5</sup> See below, pp. 167-68.



effective pursuit of the Fund's purposes, a few significant commitments are listed here.<sup>6</sup>

(a) Members shall maintain full and productive domestic employment. The application of measures for this purpose must not, however, involve the creation of balance of payments difficulties for other countries. (Art. 3)

(b) When carrying out (without resort to trade restrictions) the provision of the Charter on Maintenance of Domestic Employment, an ITO member may be handicapped by difficulties in maintaining its external financial position. One major factor causing these difficulties may be a persistent export surplus in the balance of payments of another member. At the same time that the handicapped member takes appropriate action to correct its difficulties, the country with the strong export balance must make its full contribution to assist in the attainment of this objective. (Art. 4)

(c) A member shall not take unreasonable or unjustifiable action in respect to the rights or interests of nationals of other members that are supplying it with capital, technological skill, etc. (Art. 11)

(d) A member shall upon request of any other member participate in negotiations concerning opportunities and security for foreign investment in its country. It shall provide adequate security for existing and future investments by other members. Terms in respect of ownership of existing and future investments shall be just and reasonable. (Art. 12)

(e) Members imposing charges for the transfer of payments for imports or exports shall not treat one member less favorably than another. (Art. 16)

(f) Members shall not apply vis-à-vis other members quantitative restrictions on exports and imports (whether made effective through state trading operations or otherwise) unless so authorized by the Charter. (Art. 20)

(g) Members instituting import restrictions to safeguard their external financial positions shall consult with the ITO on the problems attendant upon the imposition and maintenance of such measures. They shall remove or modify the restrictions as their external financial positions improve. (Art. 21)

(h) Members authorized to apply quantitative restrictions shall apply them in a nondiscriminatory manner unless deviation from the rule of nondiscrimination is expressly authorized. (Art. 22 and 23)

<sup>6</sup> The principal difference between the commitments of ITO members which are members of the Fund and those which are not is that members of the Fund are under the authority of the Fund in respect to their exchange policies, whereas nonmembers of the Fund are subject to the authority of the ITO, as discussed below in detail.

(i) Members shall not frustrate by trade action the intent of the provisions of the Fund Agreement.<sup>7</sup> (Art. 24)

(j) Members shall not grant export subsidies for other than primary commodities. Even the export of primary commodities shall not be subsidized in a manner which may deprive other members of an "equitable" share in world markets. (Art. 26 and 28)

(k) As far as state trading operations influence the international transactions of a member, such influence shall be exercised solely on the basis of commercial considerations. (Art. 29 and 31)

(l) Members may apply antidumping and countervailing duties only to counteract actual injury. (Art. 34)

(m) When a member needs to convert the currency of another country into its own currency for customs valuation purposes, it shall base the conversion rate on "par value" relations unless the Charter provides otherwise. (Art. 35)

(n) Members imposing fees or charges in connection with the administration of quantitative restrictions, licensing operations, or exchange controls, shall limit their amount to the approximate cost of services rendered. The imposition of these fees and charges should not result in indirect protection or revenue. (Art. 36)<sup>8</sup>

(o) Members shall promptly publish regulations relating to the transfer of payments for imports or exports. Such measures shall not be put into effect before they have been officially published. They shall be administered in a uniform, impartial, and reasonable manner. (Art. 38)

(p) Members shall not conclude intergovernmental commodity

<sup>7</sup> The trade action here referred to seems to mean action which, in the absence of the frustration clause, would be consistent with the Charter.

<sup>8</sup> Article 18 requires members not to apply "internal" taxes and charges to imported products in excess of those applied to like domestic products. When this provision on National Treatment on Internal Taxation (Article 18) was drafted, consideration was given to charges imposed on transactions in international trade in connection with multiple currency practices. The following note in the Report of the Subcommittee on Article 18 may explain the intention of the drafters:

39. The Sub-Committee considered that charges imposed in connection with the international transfer of payments for imports or exports, particularly the charges imposed by countries employing multiple currency practices, where such charges are imposed not inconsistently with the Articles of Agreement of the International Monetary Fund, would not be covered by Article 18. On the other hand, in the unlikely case of a multiple currency practice which takes the form of an internal tax or charge, such as an excise tax on an imported product not applied on the like domestic product, that practice would be precluded by Article 18. It may be pointed out that the possible existence of charges on the transfer of payments insofar as these are permitted by the International Monetary Fund is clearly recognized by Article 16.

agreements except under conditions determined in the Charter. (Chapter VI)

The preceding explanatory remarks have attempted to throw light on Fund-ITO relations in a highly condensed form. In the following sections the analysis and synthesis of these relations will be elaborated.

## Scope of Cooperation between ITO and Fund

### *Survey of fields of collaboration*

Numerous provisions of the Charter suggest or require ITO collaboration with the Fund both on broad policies and on specific actions.<sup>9</sup> The specific actions cover, generally speaking, the following: the safeguarding of the external financial position of ITO members, including the protection of monetary reserves by quantitative restrictions; exchange policies of ITO members which are not members of the Fund; trade measures other than quantitative restrictions involving monetary problems; customs valuation; and exchange of information.

Article 87 of the Charter, requiring effective cooperation with other intergovernmental organizations and the avoidance of duplication in the activities of these agencies, applies, of course, to ITO-Fund relations. Cooperation or joint action with "other governmental organizations" on specific matters is suggested in numerous provisions of the Charter, many of them applicable to Fund-ITO relations.

The article, however, which specifies the fields of collaboration peculiar to the Fund and the ITO is Article 24. This Article requires that the ITO seek collaboration with the Fund so that the two organizations will pursue a coordinated policy in respect to exchange and trade matters. Furthermore, the Charter requires the ITO (as discussed below in more detail) to consult with the Fund fully whenever it is called upon to deal generally or specifically with matters pertaining to the external financial position of its members.

The subsequent part of this study will deal principally with those provisions of the Charter which require the ITO to consult fully with the Fund when it "is called upon to consider or deal with problems concerning monetary reserves, balance of payments, or foreign exchange arrangements" (Art. 24). The *raison d'être* of these provisions is that the Fund is the agency whose primary concern is the substance of balances of payments. The Fund is concerned with the substance not only from the long range point of view but also from the point of view of its day to day actions concerning exchange rate problems,

<sup>9</sup> See George Bronz, "The International Trade Organization Charter," *Harvard Law Review* (Cambridge, Mass.), Vol. 62, No. 7, May 1949.

gold policies, restrictions on payments, and the administration of the Fund's resources.

The range of collaboration between the ITO and the Fund on monetary matters is outlined below in the following sequence: (a) matters pertaining to the exchange policies of ITO members, (b) monetary problems of a general nature dealt with in the Charter, and (c) monetary problems within the sphere of commercial, employment, and development policies. The monetary problems pertaining to quantitative restrictions (discriminatory and nondiscriminatory) and other matters requiring detailed discussion will be examined later in the section on Special Problems of Cooperation.

### *Matters pertaining to exchange policies*

Why does the ITO deal with exchange problems? Because certain matters in the realm of foreign exchange which are not expressly covered by the Fund Agreement were considered by the drafters of the Havana Charter to fall within the framework of "commercial policy"; and, in addition, because the exchange relations of those ITO members which do not join the Fund need to be regulated, since undisciplined exchange action by non-Fund members may jeopardize ITO activities.

The Charter mandatorily requires the ITO to consult with the Fund when dealing with exchange problems. The great variety of subjects in the exchange field covered by the Charter is indicated by the following enumeration. Several of these items will be discussed later in more detail.

(a) Measures to sustain employment which are taken by one country and which create balance of payment difficulties for other countries. (Art. 3)

(b) Balance of payment difficulties of members that handicap them in carrying out their obligations, under the Charter, to maintain domestic employment. One factor causing such difficulties may be a maladjustment in the balance of payments of another member, appearing in the form of an export surplus. (Art. 4)

(c) General most-favored-nation treatment to be accorded to members in respect to charges on the transfer of payments in connection with exports and imports. (Art. 16)

(d) Exchange actions of members which frustrate the intent of Charter provisions contained in the Chapter on Quantitative Restrictions (except when exchange measures are used consistently with the Fund Agreement or with a special exchange agreement), or trade action of members which frustrates the intent of the provisions of the Fund Agreement. (Art. 24)

(e) Exchange actions of nonmembers of the Fund which are to be regulated by special exchange agreements. (Art. 24)

(f) Information on exchange matters required from ITO members which are not members of the Fund. (Art. 24)

(g) The conversion rate used in customs valuation. (Art. 35)

(h) The limitation, to the cost of services rendered, of fees and charges imposed in connection with imports and exports on exchange control. (Art. 36)

(i) The publication of regulations concerning the transfer of payments for imports and exports and impartial and reasonable administration of these regulations. (Art. 38)

(j) The obligation of one member to offer another an opportunity for consultation on its exchange regulations and related practices. (Art. 41)

(k) Measures relating to the import and export of gold which discriminate among member countries or which represent a disguised restriction on international trade. (Art. 45)

(l) Restrictive business practices of commercial banks in international trade. (Art. 53)

### *Monetary problems of a general nature*

The Charter requires that the ITO deal with certain *general* economic problems which have monetary implications.

If the existence of "general disequilibrium" in international trade is indicated by the persistent and widespread application of import restrictions (imposed to safeguard the external financial position of members), the ITO is required to initiate discussions among its members to consider the measures that ought to be taken to remove the underlying causes of the disequilibrium. Such measures should be taken both by those members whose balances of payments are under pressure and those whose balances of payments tend to be exceptionally favorable. Furthermore, in such general consultation, the members may consider measures which could be taken by appropriate intergovernmental organizations to remove the underlying causes of the disequilibrium (Art. 21). Although no indication is contained in the text, the report of the London discussions of the Preparatory Committee seems to indicate that the provision of Article 21, par. 6 of the Charter was intended to apply to disequilibria occurring in the more distant future and *not* to the present situation which is generally ascribed to maladjustments resulting from the Second World War.<sup>10</sup>

<sup>10</sup> The relevant section of the London report (Report of the First Session of the Preparatory Committee of the UN Conference on Trade and Employment,

A general review by the ITO of all import restrictions applied by its members in order to safeguard their external financial situation is provided for within a period of two years after the Charter takes effect (Art. 21, par. 5(b)). In addition, a review of certain import restrictions which are applied in a discriminatory way is envisaged by Article 23, par. 1(g) of the Charter which provides that a Report be prepared by the ITO on or before March 1, 1950, and subsequently each year.<sup>11</sup> No doubt ITO members must cooperate in such a review by ITO organs and have the moral obligation to give sympathetic consideration to any action suggested to them by the ITO. Any such review will deal with the nature of the financial situation which requires the maintenance of import limitations and with other connected topics.

*Monetary problems in the sphere of commercial, employment, and development policies*

The following list of subjects which may cover monetary problems but do not belong to the category of quantitative restrictions and exchange measures is needed to complete the survey of topics on which ITO-Fund collaboration is envisaged. These subjects relate to employment, economic development, and commercial policies which may involve monetary reserves, balances of payments, and foreign exchange arrangements.

(a) Arrangements sponsored by the Economic and Social Council (including those initiated by the ITO) for the systematic collection, analysis, and exchange of information on balances of payments.<sup>12</sup> (Art. 5)

(b) Measures to promote economic development and reconstruction. Prevention of the application by members of "unreasonable or unjustifiable impediments" that limit other members in obtaining

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p. 13, item m) reads: "The Preparatory Committee agreed that, *if there were* a persistent and widespread application of restrictions on these grounds [i.e., on balance of payments grounds], there should be a procedure whereby the Organization in consultation with the International Monetary Fund should initiate discussions with members to consider whether other measures might not be taken by the countries with favorable or unfavorable balances of payments or by the Economic and Social Council of the United Nations or any appropriate inter-governmental organization to remove the underlying disequilibrium." (Italics supplied)

<sup>11</sup> Since the ITO will not be in existence on March 1, 1950, no such report can be prepared. The Contracting Parties to the General Agreement on Tariffs and Trade, however, are preparing a report.

<sup>12</sup> The draft agreement of the Fund with the ITO provides that there should be no duplication in the collection and analysis of information and statistics. The fact that in most consultations the Fund's data on balances of payments will carry decisive weight will influence the administrative arrangements for collecting and analyzing balance of payments data.

facilities necessary for their development and reconstruction. Prevention of "unreasonable or unjustifiable action" against foreign capital and technological services of foreign origin. Promotion of bilateral and multilateral agreements on security of foreign investment. (Art. 8-12)

(c) Protective measures to establish and maintain infant industries (including nondiscriminatory quantitative restrictions and preferential arrangements).<sup>13</sup> (Art. 13-15)

(d) Export subsidies, especially currency practices resulting in the subsidizing of exports. (Art. 25 and 26)

(e) Antidumping and countervailing duties applied to offset competitive advantages attained through exchange measures. (Art. 34)

(f) Agreements leading to customs unions and free trade areas. The Charter (Art. 44) recognizes the desirability of integrating the economies of ITO members in customs unions and free trade areas.<sup>14</sup> Such integration may be accomplished by one comprehensive reform or gradually through an interim agreement (which is by its very nature discriminatory). Quantitative restrictions, for balance of payments purposes, may be maintained (or imposed) between the integrated areas. The Havana Charter gives the ITO considerable influence over the "plan and schedule" under which a customs union or free trade area shall be gradually established. The conclusion of such arrangements may have important monetary implications.

(g) Commercial policy obligations in connection with the conclusion of Intergovernmental Commodity Agreements and Intergovernmental Control Agreements (Article 45 and Chapter VI). The Charter envisages the conclusion of intergovernmental agreements to stabilize or expand in a balanced manner production and trade in primary commodities and in those goods whose production or utilization conditions are so close to primary commodities that they must be included with them in a common agreement. Intergovernmental commodity agreements may also be made to organize the equitable distribution of goods which are in short supply on world markets, to conserve

<sup>13</sup> For example, a member may intend to develop a particular industry for the processing of an indigenous primary commodity, since the external sales of such commodity have been reduced by new exchange or quantitative restrictions. In the interest of such development, the ITO may authorize nondiscriminatory measures affecting imports (Art. 13, par. 7(a)(ii)).

<sup>14</sup> In a customs union, the members of the union apply substantially the same duties and regulations of commerce to the trade with countries not included in the union. In a free trade area, two or more customs territories are connected in a group in which the duties and other restrictive regulations of commerce are eliminated in respect to products originating in the constituent territories of the group. Vis-à-vis nonmembers of the group, each member of the group may apply a separate customs regime and separate restrictions.

natural resources, or to shift "resources and manpower out of over-expanded industries into new and productive occupations." The ITO also envisages, under certain conditions, the conclusion of so-called "commodity control agreements" by which members agree to restrict production, exports, and imports, and to regulate prices and other marketing conditions. The conclusion of these agreements may influence considerably the balance of payments of producer and consumer countries. When studying and negotiating the conclusion and administration of these agreements, the ITO may wish to consider their monetary aspects in consultation with the Fund.

(h) Economic measures imposed in the interest of international security at the request of the Security Council. (Art. 72)

(i) Waiving of obligations which involve exchange matters. (Art. 77)

(j) Exchange aspects of frontier traffic measures. (Art. 43)

(k) Customs valuation. As a general rule, when conversion is needed for customs valuation purposes, ITO members are required to convert foreign currency into their own currency on the basis of par value rates. If no par value is established for either or both of the respective currencies, the conversion rate shall reflect the current values in commercial transactions of the currencies involved. Where both countries have agreed par values and the exporting country employs multiple currency practices consistent with the Fund Agreement, the importing country shall convert the exporting country's currency either according to rules to be formulated by the ITO in agreement with the Fund or according to par value rates (Art. 35). In this case, the consultative procedure with the Fund takes its strongest form, since action by the ITO is conditional upon consent of the Fund. Collaboration between the ITO and the Fund will, however, be most significant in relation to problems related to international payments in general, and to the balance of payments of members in particular.

This listing (admittedly tedious) of subjects on which more or less cooperation between the ITO and the Fund is required indicates the extent to which the interests of members in the two organizations are interwoven.

### Special Problems of Cooperation

#### *Import restrictions for balance of payments purposes*

To safeguard the external financial position of a member, the Charter authorizes prohibitions and restrictions (through quotas, licensing, state trading operations, or other measures) on the importation of



goods from other member countries. The use of quantitative restrictions to prevent an undesirable outflow of monetary reserves and to assist in the accumulation of adequate reserves is not confined to the "postwar transitional" period; a member may take advantage of these safeguards (which are set forth in Article 21) whenever it finds that conditions necessitate their application.

To be sure, the Charter authorizes import restrictions not only for balance of payments reasons but for various other purposes (e.g., economic development, intergovernmental commodity agreements, shortages in supply or distribution). There is nothing in the Charter to prevent a member from maintaining import restrictions on two or more grounds.<sup>15</sup> It is a truism that import restrictions imposed for any purpose influence the balance of payments position of a member, and import restrictions instituted for balance of payments purposes and maintained for a period of some length will have a protective effect. To distinguish (on the basis of objective tests) between the various types of import restrictions may be somewhat difficult. A sharp distinction in respect to the grounds on which import restrictions are instituted may, however, be important since the conditions under which quantitative restrictions may be imposed vary, e.g., quantitative restrictions to make intergovernmental marketing schemes effective are subject to entirely different conditions from those which apply to import restrictions to protect monetary reserves.

The distinction between restrictions imposed on the transfer of payments (exchange restrictions) and restrictions imposed on the volume or value of imported goods (import restrictions) will almost always be important since this distinction will determine whether the Fund or the ITO has primary jurisdiction over the member's restrictive action. Of course, a member may choose to apply quantitative or exchange restrictions according to its own convenience, provided the measures it chooses are consistent with its international obligations. Both quantitative and exchange restrictions, if instituted for balance of payments purposes, are expected to assist in the financial restoration of weak economies. Such restoration is considered necessary both for the balanced expansion of those economies and for the ultimate multilateralization of international trade in general.

Article 21 of the Charter dealing with nondiscriminatory balance of payments restrictions, and Article 23 dealing with exceptions from the rule of nondiscrimination, were the most contested provisions of the

<sup>15</sup> An interpretative footnote to Annex K states explicitly that a member may justify discriminatory quantitative restrictions concurrently as balance of payments restrictions and as restrictions essential to the acquisition of products in short supply (Art. 45).

Charter when it was being drafted. Article 21 contains a number of commitments in connection with the imposition of import restrictions, culminating in the member's undertaking to pay due regard, in its domestic and foreign trade policies, to the need for maintaining its balance of payments "on a sound and lasting basis, and to the desirability of assuring an economic employment of productive resources." This Article authorizes a member to employ nondiscriminatory import restrictions in order to achieve a reasonable rate of increase in its monetary reserves, if the reserves are very low. Nondiscriminatory import restrictions may also be instituted, maintained, or intensified by a member to stop a serious decline in its monetary reserves. Furthermore, as a preventive measure, such restrictions are authorized to forestall the imminent threat of a serious decline in a member's monetary reserves. The *extent* of the import restrictions employed must be commensurate with the effect which they are intended to achieve. This extent has to be considered in the light of other corrective measures which have been taken (or are to be taken) by the member, especially restrictions on payments which are employed along with the import restrictions. Exchange and import restrictions may overlap, i.e., they may regulate the same types of transactions.

As the external financial position of the member improves (provided the improvement is likely to be sustained), the member must proportionately relax and ultimately remove the import restrictions. However, pressure on the member's reserves may be a result of its domestic policies, especially in employment and economic development. If such domestic policies are consistent with the terms of the Charter, the member cannot be required to relax or remove the restrictions on the ground that their use might be unnecessary if different employment or development policies were adopted. Generally speaking the provisions of the Charter on import restrictions are not intended to give the ITO authority to interfere with the domestic policies of its members.<sup>16</sup>

To the use of import restrictions for balance of payments purposes is attached the obligation of the member to consult with the ITO as to the nature of its balance of payments difficulties, the available alternative corrective measures, and the possible effect of such measures (whether import measures or alternative measures) on the economies of other members.

<sup>16</sup> The ITO cannot "require" its members to change their domestic policies. This does not mean that in the process of consultation the ITO cannot and should not indicate the advantages and disadvantages of certain economic and social measures pertaining to the domestic economy of a member.

Members which are not applying import restrictions to safeguard their external financial position but are considering doing so must *initiate* consultations with the ITO (a) if practicable before instituting import restrictions, or (b) otherwise, immediately after their institution.<sup>17</sup> In addition, the ITO is authorized to institute consultation on import restrictions for balance of payments purposes at any time.<sup>18</sup>

One of the objectives of the consultation is to limit, in the interest of other countries, the possibility of an arbitrary and capricious employment of import restrictions. A further objective is to ensure a free exchange of opinions with the member on the domestic and external causes and possible consequences of its balance of payments difficulties (their "nature"), on the comparative advantages and disadvantages of the alternative measures available to correct (partly or wholly) the maladjustment, and on the possible effect of the import measures and suggested alternative measures on the economies of other members. The terms of the Charter do not prevent the ITO from indicating in the course of consultation that the contemplated import measures are insufficient to create the conditions in which measures can be fruitfully employed to correct the maladjustment in the member's balance of payments, and that restrictions more radical than those envisaged (or imposed) by the member are necessary.

What are the consequences if a member institutes import restrictions without consultation although under the terms of the Charter it is obliged to initiate consultation, or if the member does not respond to the invitation to consult? Such import restrictions (however justifiable they may be in substance) must be considered as applied inconsistently with the terms of the Charter until consultation takes place. Although the Charter does not provide a direct enforcement mechanism compelling the member to consult, the fact remains that such non-consultation is a violation. The ITO can enforce consultation only if another member whose trade is adversely affected by the import restrictions complains (Art. 21, par. 5(d)).

The decisive factor determining whether a member shall be authorized to apply import restrictions to safeguard its external financial position is the condition of its monetary reserves (Art. 21, par. 3(a)).

<sup>17</sup> If the member represents that prior consultation was impracticable, the consultation may cover consideration of circumstances which made the prior consultation impracticable.

<sup>18</sup> The ITO is *required* by Article 21, par. 5(b) to invite members substantially intensifying their import restrictions to consult within thirty days. If, however, a member substantially intensifies its import restrictions while consultation is in progress on those restrictions which it has applied before intensification, the ITO will include (upon request of the member) in the consultation consideration of the newly imposed restrictions. If no request is made by the member, the ITO will issue an "invitation" to consult in respect to the intensification.

The criteria for testing whether the restrictions are consistent with the Charter are the inadequacy of the reserves, their serious decline, or an imminent threat of their serious decline. How are the member's monetary reserves to be defined when these criteria are considered? Broadly speaking, liquid short-term net foreign assets (including gold) which are under the control of the monetary authorities of the member and which can be used for settling the international accounts of that member (taking into account committed and earmarked amounts) may be considered its monetary reserves for the purpose of Article 21, par. 3(a). If the monetary authorities control sufficient short-term liquid net assets to settle their net international obligations (taking into account possible fluctuations), and if these net assets are not declining and no imminent threat of a serious decline exists, the member's reserves do not need protection through import restrictions. Whether monetary reserves are to be considered adequate depends, in the broadest sense, on the member's balance of payments prospects.

The ITO will rely upon the Fund's opinion as to which assets (taking into account earmarked amounts and short-term liabilities influencing the reserves) may be considered monetary reserves for the purpose of Article 21 of the ITO Charter. The ITO will also rely on the Fund's judgment as to the significance of various factors affecting the reserves or the need for reserves.<sup>19</sup> The term "monetary reserves" must be read in the context of Article 21, and interpreted from the point of view of the subject matter with regard to which the term is used. This subject matter is the necessity of import restrictions to safeguard a member's external financial position.

The Preparatory Committee of the ITO, which prepared the various drafts of the Charter (London, Lake Success, Geneva), based its work at London on *The Suggested Charter of an International Trade Organization of the United Nations*, published in September 1946 by the U. S. Department of State. This document contained an article on "Restrictions to Restore Equilibrium in the Balance of Payments" (20) authorizing import restrictions to protect monetary reserves, which included the following provision:

"A Member's monetary reserves shall be understood to mean its reserves as defined in Article XIX(e) of the Articles of Agreement of the International Monetary Fund."

<sup>19</sup> The need to provide for the *appropriate* use of such secondary reserves as credits and other financial resources may influence the necessity and extent of import restrictions in several ways. The *appropriate* use of credits and resources requires, on the one hand, that no undue pressure should be exerted upon a country to use its credits and resources inappropriately in order to avoid the maintenance, intensification, or imposition of import restrictions. On the other hand, if import restrictions can be avoided by an appropriate use of secondary reserves, such credits and other resources should be used to a reasonable extent.

Article XIX(e) of the Fund Agreement reads:

A member's monetary reserves shall be calculated by deducting from its central holdings the currency liabilities to the Treasuries, central banks, stabilization funds, or similar fiscal agencies of other members or non-members specified under (d) above, together with similar liabilities to other official institutions and other banks in the territories of members, or non-members specified under (d) above. To these net holdings shall be added the sums deemed to be official holdings of other official institutions and other banks under (c) above.

Though the Preparatory Committee at London accepted the fundamental idea of the American draft for authorizing quantitative restrictions to safeguard the balance of payments, it did not adopt the language of the draft which interpreted "monetary reserves" by referring to Article XIX(e) of the Fund Agreement.<sup>20</sup> Neither later drafts nor the ITO Charter itself includes definitions of monetary reserves.<sup>21</sup>

The Charter expressly determines the three principal subject matters on which consultation is required in relation to import restrictions. They are (a) the *nature* of the member's balance of payments difficulties, (b) available alternative corrective measures, and (c) the possible effects of import restrictions and of available alternative measures on the economies of other members.

Of course, within the framework of these main topics a number of other problems covered by the Charter may arise in the course of consultation upon the initiative of those who are participating in it. The consultation may be concluded by the ITO putting its views into either formal or informal opinions. It cannot be contended that the failure to express a formal opinion on certain aspects would make the consultation on the matters under review purposeless, since the exchange of views in itself may serve the purpose intended by the Charter. The ITO cannot, however, reasonably display an inconclusive attitude on such decisive points as the general status of reserves, or the necessity for imposing import restrictions.

The developments in the course of the consultative procedure

<sup>20</sup> The provision of Article XIX(e) needs to be read in conjunction with paragraphs (a), (b), (c), and (g) of that Article. As far as monetary reserves are concerned, Article XIX of the Fund Agreement was intended to give guidance in interpreting those provisions of the Fund Agreement in which that term occurs. On international reserves and on a working concept of surplus and deficit in the balance of payments, see International Monetary Fund, *Balance of Payments Yearbook, 1933, 1946, 1947* (Washington 1949), pp. 4 ff.

<sup>21</sup> Professor Clair Wilcox, who played a prominent part in the preparation and discussion of the ITO Charter, seems to interpret the term monetary reserves in the context of Article 21, as "holdings of gold and convertible currencies." In his opinion, a member "may not impose quotas unless unrestricted imports would reduce its holdings of gold and convertible currencies to levels inconsistent with continued financial stability" (*A Charter for World Trade*, New York, 1949, p. 86).

between the ITO and its member (especially insofar as the ITO renders formal decisions) will decisively influence the corresponding consultative procedure between the ITO and the Fund. Some light may be thrown on Fund-ITO relations in this connection by listing the important types of formal decisions which the ITO may render.

(a) An *opinion* to an individual member as to whether the *contemplated* import restrictions (or alternative measures) are consistent with the Charter; also, on the nature of the member's balance of payments difficulties, on alternative corrective measures, and on the possible effect of such measures on the economies of other members. (Art. 21, par. 5(a))

(b) *Prior approval* insofar as the general extent, degree of intensity, and duration of import restrictions are concerned. (Art. 21, par. 5(c))

(c) An *opinion* as to whether quantitative restrictions that are maintained or intensified are consistent with the terms of the Charter. (Art. 21, par. 5(a) and (b))

(d) An *expression of views* concerning conditions for settlement of complaints raised against members maintaining restrictions; after *determination* that restrictions are maintained inconsistently with Articles 21, 22, and 23 of the Charter, *recommendations* for modification or withdrawal of restrictions; the *release* of members from specified obligations under the Charter vis-à-vis members applying quantitative restrictions in a manner which is inconsistent with the terms of the Charter. (Art. 21, par. 5(d))

(e) *Recommendations* or *rulings* in respect to complaints of a member that any benefit accruing to it under the Charter is being nullified or impaired or that the attainment of any objective of the Charter is being impeded by the action of another member; *determination* in the course of a "Nullification or Impairment" procedure that the circumstances of the case are serious enough to justify the release of a member from obligations or from the granting of concessions pursuant to the Charter as the ITO may determine. (Art. 94 and 95)

(f) The *waiving* of certain obligations connected with monetary reserves, balance of payments and foreign exchange arrangements, and the decision on separate voting requirements in such cases. (Art. 77)

The consultative procedure on import restrictions may merge in certain cases with consultation on exchange restrictions which are to be conducted by the ITO pursuant to a special exchange agreement. It may also merge with consultations concerning the discriminatory aspect of import measures. Technical details in respect to the procedure of consultation will be covered on the one hand by the

general rules of procedure of the ITO, on the other hand by administrative arrangements between the ITO and the Fund.

### *Discriminatory practices*

Numerous provisions of the ITO Charter restrict members in applying discriminatory trade practices by government action against each other. In accordance with the ideology underlying the Charter, the businessman should in principle negotiate and conclude business transactions in respect to imports and exports free from governmental regulations other than those requiring the payment of nondiscriminatory customs duties and similar charges. He should be able to act according to his profit interest. Article 22 of the Charter contains a general prohibition of discrimination in export and import transactions.<sup>22</sup>

No doubt the fundamental idea underlying the Fund Agreement, in respect to discrimination, is almost identical with that underlying the Charter. However, the Fund Agreement is much less articulate than the ITO Charter in condemning discriminatory practices and especially in specifying which practices should be avoided. The consultative functions of the Fund (including "findings" of facts and rendering "determinations") extend also to discriminatory practices whenever the ITO is dealing with problems concerning monetary affairs.

It would be difficult to describe with any degree of exactness the discriminatory arrangements which will require collaboration with the Fund. The best approach to a generalized description may be a brief discussion of those Charter provisions which apply to discriminatory practices that have some bearing on balance of payments problems. To give a picture of the relevant Charter provisions, specified prohibitions of discriminatory measures as well as authorized discriminatory practices are discussed below.

*Transitional discriminatory arrangements.* In the transition period from the end of the Second World War to the time when the necessity for protecting foreign exchange reserves will be exceptional, the Charter permits certain deviations from the rule of nondiscrimination. These are called Exceptional Transitional Period Arrangements.

The provisions of Article 23 on Exceptional Transitional Period Arrangements authorize discriminatory deviations in the use of import

<sup>22</sup> The Charter defines discriminatory quantitative restrictions as follows: Prohibitions and restrictions "applied by any member on the importation of any product of any other member country or on the exportation of any product destined for any other member country, unless the importation of the like product of all third countries or the exportation of the like product to all third countries is similarly prohibited or restricted."

restrictions for no other purpose than to safeguard a member's external financial position. The member must at the same time be availing itself, in the exchange field, of "transitional arrangements" in accordance with Article XIV of the Fund Agreement (or in accordance with a special exchange agreement). ITO members which are not members of the Fund cannot take advantage of Exceptional Transitional Period Arrangements unless they have concluded special exchange agreements authorizing transitional arrangements in the exchange field. The Charter requires that policies used in connection with any of the Exceptional Transitional Period Arrangements shall (a) promote maximum development of international trade and (b) expedite attainment of a balance of payments position which does not require resort to restrictive measures. The Charter permits the three following categories of Exceptional Transitional Period Arrangements.

- (A) Discriminatory import restrictions having an effect equivalent to transitional exchange arrangements under Fund Agreement. (Article 23, par. 1(b) of the Charter)

A member which applies import restrictions to safeguard its external financial position may, in the use of such restrictions, deviate from the rule of nondiscrimination in a manner which has an effect equivalent to those exchange restrictions which the member *may* at that time apply under Article XIV (Transitional Period) of the Fund Agreement (or under an analogous provision of a special exchange agreement). In other words, the discriminatory effect of the import measures must be equivalent to the discriminatory effect of transitional *exchange* arrangements which the member (in its capacity as Fund member or as a party to a special exchange agreement) is at the same time authorized to apply (regardless of whether or not it *actually* does apply them). The authorization in the Fund Agreement for a member to *adapt* transitional exchange arrangements to changing circumstances (and, in the case of members whose territories have been occupied by the enemy, to introduce new transitional exchange arrangements where necessary) automatically broadens the range of possibilities in regard to the discriminatory application of import measures. After March 1, 1952, the member may "retain" its deviations from the rule of nondiscrimination as far as they have an effect equivalent to the transitional exchange arrangements "retained" in accordance with Article XIV, Section 4, of the Fund Agreement. Since the retention of transitional exchange arrangements after March 1, 1952 is conditional on consultation with the Fund, the Fund will ex-



ercise indirect (but decisive) influence upon this category of discriminatory import restrictions.<sup>23</sup>

Furthermore, since the Fund may under exceptional conditions (Art. XIV, Sec. 4 of the Fund Agreement) require the abandonment of one particular restriction, or the general abandonment of exchange restrictions which are inconsistent with the purposes of the Fund, it follows that the Fund's decision requiring the withdrawal of one (or all) exchange restrictions automatically changes the member's authority to impose or maintain discriminatory import restrictions on the basis of Article 23, par. 1(b) of the Charter.

(B) Discriminatory import restrictions which were applied on March 1, 1948. (Article 23, par. 1(c) of the Charter)

A member which was applying import restrictions to safeguard its external financial position on March 1, 1948, in a manner which deviated from the rules of nondiscrimination, may *continue* so to deviate, and may *adapt* such discriminatory deviations to changing circumstances. This authorization does not apply, however, to those discriminatory deviations which the member was authorized to apply on March 1, 1948 under the provision of Article 23, par. 1(b) of the Charter, discussed above under (A). In March 1952, and each year thereafter, the member must consult with the ITO concerning its general policies in respect to the retention of discriminatory deviations considered here under (B).

The principal difference between discriminatory deviations as discussed here under (A) and (B) is that deviations considered under (A) are (indirectly) controlled by the Fund, whereas those discussed under (B) are controlled by the ITO (although in consultation with the Fund).

(C) Discriminatory import restrictions in order to obtain additional imports. (Annex K to Charter) <sup>24</sup>

A member applying import restrictions to safeguard its external financial position may relax such restrictions in a manner which departs from the rule of nondiscrimination to the extent necessary to

<sup>23</sup> The respective part of Article XIV, Sec. 4 of the Fund Agreement reads "Five years after the date on which the Fund begins operations, and in each year thereafter, any member still retaining any restrictions inconsistent with Article VIII, Sections 2, 3, or 4, shall consult the Fund as to their further retention."

<sup>24</sup> Annex K applies to only the United Kingdom, Canada, Ceylon, Southern Rhodesia, Union of South Africa, Lebanon, and Syria, which exercised an option in favor of Annex K. The members here enumerated cannot apply discriminatory import restrictions on the bases discussed above under (A) and (B)

obtain *additional* imports. Additional imports are considered to be those which exceed the maximum total of imports which would be obtainable if the import restrictions were applied in a nondiscriminatory manner.

The levels of prices of such additional imports should not be substantially higher than those for comparable goods available from other countries. The import transaction must not be part of an arrangement which would result in a reduction in the amount of gold and convertible currencies derived from exports to members not participating in such arrangement.<sup>25</sup> If it is not practicable for a member to ascertain whether the complex conditions here described prevail in respect to each individual import transaction, the member is required at least to satisfy itself that these conditions are fulfilled "generally."

The ITO may require a member to withdraw discriminatory deviations which are inconsistent with the provisions of Annex K. Also beginning March 1, 1952, the ITO may issue limitations of a *general* nature concerning the application of discriminatory deviations (and adaptations of discriminatory deviations to changing circumstances). In addition, a member is required to consult in March 1952 (and each year thereafter) with the ITO in respect to general policies relative to import discrimination if it wishes to continue to maintain discriminatory deviations based on Annex K of the Charter. A member may consult with the ITO with a view to obtaining its prior approval in respect to the general extent, intensity, and duration of deviations from the rule of nondiscrimination pursuant to Annex K. Members must keep the ITO informed on discriminatory actions under Annex K, and the ITO has special authority to require information on such actions.

Authorization for the discriminatory arrangements based on these provisions cannot be given under more than one of the three categories, (A), (B), and (C). That is to say, one particular discriminatory import measure cannot be based on A and B, or A and C, or B and C, or on A, B, and C.

*Temporary discrimination in small part of trade.* Members applying import restrictions to safeguard their external financial position (Art.

<sup>25</sup> More precisely expressed, the import transaction must not be part of an arrangement with other members which would result in a situation in which the direct and indirect receipts in gold and convertible currencies from current exports to members not participating in the arrangement would be reduced below a hypothetical level. This hypothetical level is composed of export receipts in gold and convertible currencies which the member (applying the discriminatory import measures) could have reasonably expected to receive (in the absence of the arrangement here mentioned) from current exports to members not participating in the arrangement.

21) may, with the prior consent of the ITO, apply them in a discriminatory manner in respect of a small part of their external trade. The ITO may consent to such measures if the benefits (arising from the discriminatory deviation) to the member substantially outweigh any injury to the trade of other members. This measure is independent of whether or not the transitional *exchange* arrangements (in accordance with the Fund Agreement or a special exchange agreement) have been terminated.<sup>26</sup>

*Direction of exports to earn convertible currencies.* The provisions of the Charter on quantitative restrictions (Section IV-B) <sup>27</sup> do not preclude a member that is applying balance of payments restrictions from requiring its residents to specify payments for their exports in order to increase the member's acquisition of currencies which it can use without deviation from the rule on nondiscrimination. (Art. 23, par. 4)

*Discrimination to assist economies disrupted by war.* A member applying import restrictions to safeguard its external financial position under Article 21 is authorized until December 31, 1951 to discriminate in the application of those import restrictions, if the discrimination does not involve a substantial departure from the rule of nondiscrimination (Art. 22), and if as a result of the discrimination the member is placed in a position to assist another country whose economy has been disrupted by war. (Art. 23, par. 3(b))

*Discrimination within a political union.* Import restrictions to safeguard their external financial positions (Art. 21) may be applied in a discriminatory manner by a group of ITO members which have a "common" quota in the Fund against outsiders which are not covered by that "common" Fund quota. In this way, as far as the discriminatory import restrictions are concerned, a free trade area will exist among the members of a group of territories which are covered under one membership in the Fund.<sup>28</sup>

<sup>26</sup> Article 23, par. 2 of the Charter authorizes the ITO to consent to certain discriminatory deviations of an individual member "whether or not its transitional period arrangements have terminated." According to this text, only members which are availing themselves of transitional exchange arrangements under Article XIV of the Fund Agreement (or a corresponding provision of a special exchange agreement) and those which have terminated the application of such transitional exchange arrangements can be accorded such consent. Since there is no conceivable difference between the position of a member which has never applied transitional exchange arrangements and that of a member which has terminated such arrangements, it may be assumed that the former may also take advantage of this provision.

<sup>27</sup> Under provisions of the Charter other than those contained in Section IV-B, however, the member may be precluded from directing its exports to earn convertible currencies. See also Article 24, par. 8 (b).

<sup>28</sup> The Fund Agreement does not provide literally for "common" membership;

*Discriminatory measures in connection with scarce currencies.* A formal declaration of the Fund that a currency is scarce in the Fund operates as an authorization to members of the Fund to impose (after consultation with the Fund) temporary limitations on the freedom of exchange operations in the scarce currency. The Charter authorizes ITO members to apply discriminatory quantitative restrictions having effect equivalent to exchange restrictions applicable by Fund members under the title of scarce currencies. (Art. 23, par. 5(a))

*Quantitative restrictions to make exchange measures effective.* Article 24, par. 8(b) of the Charter authorizes the use of restrictions on imports and exports to "make effective" such (discriminatory and nondiscriminatory) exchange measures as are consistent with the Fund Agreement or with the terms of the respective special exchange agreement; there is a qualification, however, that these quantitative restrictions must not conflict with provisions of the Charter other than those included in the Section on Quantitative Restrictions. In other words, members legitimately applying exchange restrictions or exchange controls (whether on capital or on current transactions) may implement them through quantitative restrictions (e.g., an export licensing system for jewelry may be instituted to reinforce exchange restrictions established to prevent capital flight).<sup>29</sup> However, the quantitative restrictions so instituted cannot conflict with other provisions of the Charter which are not included in the section on Quantitative Restrictions and Related Exchange Matters (e.g., those on Intergovernmental Commodity Agreements or Freedom of Transit).<sup>30</sup>

The Fund will have indirect control over these quantitative measures since the underlying exchange measures are under its authority.

*Discriminatory restrictions in the interest of national or international security.* ITO members which are also members of the United Nations may be required by the Security Council, in the interest of maintaining security, to restrict all kinds of economic activity with another country (member or nonmember of ITO). The Security Council may require members to carry out such actions directly, or through such international organizations as the ITO or the Fund<sup>31</sup> (Articles 39,

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Governments accept the Fund Agreement *both* on their own behalf and in respect of all territories in which they exercise authority.

<sup>29</sup> Exchange restrictions authorized against nonmembers of the Fund by Article XI, Sec. 2 of the Fund Agreement cannot be made effective by quantitative restrictions if the "nonmembers of the Fund" are members of the ITO. This is not specified in the Charter, but it follows by implication from its provisions.

<sup>30</sup> Quantitative restrictions instituted under this title and their discriminatory application are not subject to the consultation and complaint procedure pursuant to Article 21, par. 5, and to the frustration provision of Article 24, par. 4.

<sup>31</sup> According to the Agreement of the UN with the Fund (Art. VI), the Fund takes note of the obligation of its members to cooperate in the maintenance of peace and security under Article 48, par. 2 of the UN Charter.

41, 42, 48, 103 of the UN Charter and Article 86 of the ITO Charter). Cooperation in economic sanctions against members and nonmembers may pose to the ITO and the Fund complex problems in the fields of law and economics, and the application of such sanctions will be as delicate as it is important.

The Charter's provisions on General Exceptions (Article 99) authorize members to protect their essential national security interests, especially in periods of emergency in international relations. Such protective action will frequently take the form of discriminatory quantitative restrictions. Discriminatory measures to enforce the provisions of peace treaties and of other arrangements resulting from the Second World War are also authorized. (Art. 99)

*Discrimination through state trading.* As far as discriminatory quantitative restrictions are "made effective" through state trading operations, the provisions of the Charter covering quantitative restrictions apply (Art. 20, par. 4). If members use other state trading practices which have a restrictive effect (e.g., export or import monopoly), they must negotiate with other members to equalize the competitive advantages resulting from state trading. As far as practicable, members must act solely in accordance with "commercial" considerations (Articles 29 and 31). In considering the discriminatory trade and financial effects of state trading operations, the ITO and the Fund will enter an unexplored field.

*Charges on exchange transactions.* The Charter prohibits discrimination with respect to charges imposed on the transfer of payments for imports and exports (Art. 16). Even if such discriminatory charges are authorized under the Fund Agreement, they must not be applied (according to the terms of the ITO Charter) in a discriminatory manner.

*Miscellaneous titles.* Discrimination in trade which may require ITO action (and consultation with the Fund as far as monetary aspects are concerned) may occur in a number of other cases. A few examples are given here. International commodity and commodity control agreements, like preparatory measures for customs unions and free trade areas, will by their very nature involve discrimination (Art. 45(a)(ix)). Discriminatory restrictions are temporarily authorized to relieve critical shortages of essential goods (Art. 20, par. 2(a)), or in the postwar period to deal with such problems as the distribution of products in short supply, the control of prices, and the liquidation of war surpluses (Art. 45(b)). Pakistan and India are authorized to apply to each other more favorable conditions in respect to quantitative restrictions (Annex M). Old and new preferential regimes may be authorized to use discriminatory quantitative measures (Art. 15,

16, par. 2, 23, par. 5(b)). Film quotas may be discriminatory (Art. 19(d)).

One of the most important problems in ITO-Fund collaboration will be the development of policies concerning the use of discriminatory measures. The principal purpose of such measures is to strengthen the economic position of members so as to enable them to participate in nondiscriminatory trade.

### *Findings and determinations of the Fund*<sup>32</sup>

Consultation between the Fund and the ITO on subjects related to the three principal items in Article 24, par. 2—i.e., monetary reserves, balance of payments, and foreign exchange arrangements—will center on assembling information on facts and consideration of opinions on the problematical issues involved. The facts supplied by the Fund, and the opinions rendered by it, will carry more weight for ITO than is usual in consultations between intergovernmental organizations. Article 24, par. 2 of the Charter requires the ITO to “accept” certain findings and determinations of the Fund.<sup>33</sup> The circumstances under which the Fund may designate certain facts, which it supplies, as “findings,” and certain opinions as “determinations,” which must be “accepted” by the ITO, will now be examined. When consulted the Fund may supply the ITO with (a) findings on statistical and other facts, (b) determinations as to whether exchange actions of ITO members are authorized, and (c) determinations concerning the monetary aspects of import restrictions. Even where the Fund is authorized to designate certain facts and opinions as “findings” and “determina-

<sup>32</sup> A tabular summary of Fund action to be taken when consulted by ITO on problems concerning monetary reserves, balance of payments or foreign exchange arrangements is given on page 173.

<sup>33</sup> Article 24, par. 2, reads: “In all cases in which the Organization is called upon to consider or deal with problems concerning monetary reserves, balance of payments or foreign exchange arrangements, the Organization shall consult fully with the Fund. In such consultation, the Organization shall accept all findings of statistical and other facts presented by the Fund relating to foreign exchange, monetary reserves and balance of payments, and shall accept the determination of the Fund whether action by a Member with respect to exchange matters is in accordance with the Articles of Agreement of the International Monetary Fund, or with the terms of a special exchange agreement entered into between that Member and the Organization pursuant to paragraph 6 of this Article. When the Organization is examining a situation in the light of the relevant considerations under all the pertinent provisions of Article 21 for the purpose of reaching its final decision in cases involving the criteria set forth in paragraph 3(a) of that Article, it shall accept the determination of the Fund as to what constitutes a serious decline in the Member's monetary reserves, a very low level of its monetary reserves, or a reasonable rate of increase in its monetary reserves, and as to the financial aspects of other matters covered in consultation in such cases.”

tions" it is not, however, obliged to do so. It may indicate that it prefers to have these communications regarded merely as informal advice.

*Findings on statistical and other facts.* When the Fund is consulted by the ITO on a problem concerning monetary reserves, balance of payments, or foreign exchange arrangements (regardless of whether the consultation concerns quantitative restrictions or other topics), the Fund may on its own initiative, or upon request of the ITO, present to the ITO *findings* of statistical facts, and other (than statistical) facts, relating to foreign exchange, monetary reserves, and balance of payments.<sup>34</sup> These findings must be "accepted" by the ITO. The obligation to "accept" the findings of the Fund means that the ITO must, if it wishes to base its action involving monetary matters on "statistical and other facts," not base its action on facts other than those supplied by the Fund. If the ITO wished to disregard the Fund's "findings," it could do so only by basing its action on facts other than those over which the Fund has the sole function to render "findings."

The Fund will presumably base its findings on *verifiable* evidence. Facts concerning foreign exchange, balance of payments, and monetary reserves will often have to be deduced from other facts; inferential deduction on certain concepts (for example, on what composes foreign exchange) may frequently be necessary. Presumably, the Fund will inform the ITO (upon its request) what methods it used in ascertaining facts (including estimates) and on what evidence its findings have been based. When the Fund cannot divulge confidential evidentiary facts, it will inform the ITO to that effect. Presumably the Fund and the ITO will take administrative measures to make it possible for nonmembers of the Fund to arrange for direct consultation with the Fund on facts which are of concern to these nonmembers.

*Determination as to whether exchange actions of ITO members are authorized.* The Fund (when consulted by the ITO on monetary problems) may upon its own initiative or upon request of the ITO render "determination" as to whether actions of ITO members "with respect to exchange matters" are "in accordance" with the Fund Agreement, as far as Fund members are concerned, or with a special exchange agreement, as far as nonmembers of the Fund are concerned. The expression "action with respect to exchange matters" covers a variety of situations. All actions of a member (except mere organizational measures) covered by the Fund Agreement or by a special exchange agreement will be considered as taken "with respect to exchange matters."

<sup>34</sup> No doubt, the Fund's fact-finding function extends also to consultations in the course of application of the provisions of a special exchange agreement.

The administration of a special exchange agreement<sup>35</sup> will consist principally of judging whether an exchange action is "in accordance" with that agreement. This is the reason for the Fund's extended functions in the application of those agreements.

*Determinations concerning the monetary aspects of import restrictions.* When a member imposes (or envisages) import restrictions to protect its reserves, or maintains or intensifies such restrictions, the ITO may be called upon to consider whether certain criteria have been observed which make the member's action consistent with the Charter.<sup>36</sup> These criteria are set forth in Article 21, par. 3(a) of the Charter which reads:

No Member shall institute, maintain or intensify import restrictions under this Article except to the extent necessary

- (i) to forestall the imminent threat of, or to stop, a serious decline in its monetary reserves, or
- (ii) in the case of a Member with very low monetary reserves, to achieve a reasonable rate of increase in its reserves.

Due regard shall be paid in either case to any special factors which may be affecting the Member's reserves or need for reserves, including, where special external credits or other resources are available to it, the need to provide for the appropriate use of such credits or resources.

The Charter requires the ITO to accept the "determination" of the Fund on the monetary aspects of the problems here involved. The last sentence of Article 24, par. 2, reads as follows:

When the Organization is examining a situation in the light of the relevant considerations under all the pertinent provisions of Article 21 for the purpose of reaching its final decision in cases<sup>37</sup> involving the criteria set forth in paragraph 3(a) of that Article, it shall accept the determination of the Fund as to what constitutes a serious decline in the Member's monetary reserves, a very low level of its monetary reserves or a reasonable rate of increase in its monetary reserves, and as to the financial aspects of other matters covered in consultation in such cases.

In other words, when consulted by the ITO on problems which concern monetary reserves, balance of payments, or foreign exchange arrangements, the Fund may render "determinations" (under conditions indicated below)

- (a) from *all relevant points of view*, as far as the matter at issue is what constitutes
  - (1) a serious decline in a member's monetary reserves,

<sup>35</sup> See below, pp. 167-68.

<sup>36</sup> Questions involving these criteria may also arise in other "cases" than those involving import restrictions. However, such other "cases" will occur rather exceptionally.

<sup>37</sup> The "cases" mentioned concern principally import restrictions. The sole authority over them rests with ITO.



- (2) a very low level of a member's monetary reserves, or
- (3) a reasonable rate of increase in a member's monetary reserves, and
- (b) from the *financial point of view* only, as far as other matters (i.e., other than a serious decline of reserves, a very low level of reserves, and a reasonable rate of increase in the reserves) are concerned, which matters are covered in consultations involving the criteria set forth in Article 21, par. 3(a).

Such determinations as those just outlined will be supplied by the Fund only when the ITO is considering cases involving the status of monetary reserves in order to reach a "final decision."<sup>38</sup> The ITO shall reach its decision in the light of all relevant provisions of Article 21, and not only on the basis of those on which the Fund is authorized to render determinations (e.g., it has to consider also employment problems). The over-all "final" decision as to the extent to which a member's import restrictions are necessary, and the over-all considerations concerning the effect of such restrictions, are in the province of the ITO, although in reaching such "final decision" the determination of the Fund will be, no doubt, a very weighty element.

Three terms of the last sentence of Article 24, par. 2 are analyzed briefly here in order to make more explicit the circumstances under which the Fund is expected to make determinations on monetary issues: (a) Significance of the "criteria" set forth in Article 21, par. 3(a); (b) What "cases" involve these criteria? (c) What are "other matters" on which the Fund renders determinations from the financial point of view?

*Significance of "criteria."* *Criteria* are "set forth" in par. 3(a) of Article 21 in order to enable the ITO and its members to test whether (and to what extent) import restrictions to safeguard the external financial position of a member are necessary. The "extent" of these import restrictions will probably be "measured" in terms of the value of merchandise which they will keep out of the country, or in terms of the value of foreign exchange which will be saved. The following are set forth in Article 21, par. 3(a) of the Charter as *criteria* for testing the authorization to impose import restrictions:

- (1) The fact that there exists an *imminent threat* of a serious decline in the monetary reserves of a country, which threat can be forestalled with the assistance of import restrictions;
- (2) The fact of a serious decline in the monetary reserves of a

<sup>38</sup> In a consultation between ITO and a member, ITO itself will determine whether it wishes to consider its conclusions partly or fully as "final decisions" or merely as informal advice.

country, which decline can be stopped with the assistance of the application of import restrictions;

(3) The fact that a country's monetary reserves are very low (below the required level) and that with the assistance of import restrictions a reasonable rate of increase in these reserves can be achieved.

Each of these criteria represents a yardstick for testing whether (and to what extent)<sup>39</sup> import restrictions are authorized under Article 21 of the Charter. When these criteria are appraised, coexistent (or expected) exchange restrictions affecting the reserve position of a country must be taken into consideration. Furthermore, a number of "special" factors which may positively or negatively affect the need for protection of the country's reserves must also be taken into account. One such "special" factor is the need to provide for the appropriate use of special external credits or other resources where such credits or resources are available.

The criteria that have been discussed here are those "set forth" in Article 21, par. 3(a). In addition, the external financial position of a country can be tested by reference to a number of other criteria. The principal criterion implied (but not "set forth") in Article 21, par. 3(a) is the "desirable" status of monetary reserves which is to be considered in the light of a "desirable" setting of international economic intercourse.

*Significance of "cases" involving monetary reserve criteria.* Determinations will be rendered by the Fund when the ITO consults the Fund in "cases" involving criteria significant for the status of monetary reserves. Generally speaking, one or more of these criteria will be involved in all consultations on the institution, maintenance, intensification, relaxation, removal, or modification of import restrictions (whether or not these measures are applied in a discriminatory way). The Fund will render determinations only in "cases" which actually concern one or more individual members of the ITO. *Abstract* problems relating to monetary reserves (for example, whether there is widespread disequilibrium as mentioned in Article 21, par. 6) on which the Fund is consulted in the interest of the community of ITO members will not constitute a "case" from the point of view here discussed.

<sup>39</sup> The consistency of the import restrictions with the Charter must be considered in the light of the provisions of Article 21, par. 3(b) which reads: "A Member applying restrictions under sub-paragraph (a) shall progressively relax and ultimately eliminate them, in accordance with the provisions of that sub-paragraph, as its external financial position improves. This provision shall not be interpreted to mean that a Member is required to relax or remove such restrictions if that relaxation or removal would thereupon produce conditions justifying the intensification or institution, respectively, of restrictions under sub-paragraph (a)."

A few examples of "cases" which may involve the criteria set forth in Article 21, par. 3(a) are the following:

(1) Consultation of a member with ITO, before instituting import restrictions, as to the nature of its balance of payments difficulties, alternative corrective measures, and the possible effects of such measures on the economies of other members. (Art. 21, par. 5(a))

(2) Consultation upon invitation of ITO. (Art. 21, par. 5(b))

(3) Consultation with a view to prior approval of import restrictions, under specified future conditions as to their general extent, degree of intensity, and duration. (Art. 21, par. 5(c))

(4) Complaints of adversely affected ITO members against members maintaining import restrictions. (Art. 21, par. 5(d))

(5) Settlement of disputes involving monetary reserve problems in accordance with Articles 93, 94, 95, and 96 of the Charter, which deal with impairment and nullification.

(6) Application of waiver provisions, if the waiver concerns problems relating to monetary reserves, balances of payments or foreign exchange arrangements. (Art. 77, par. 3)

*"Other" matters than the serious decline and very low level of reserves and a reasonable rate of the increase of reserves.* What are the "other" matters which may be covered in consultation? They are those matters on which the Fund can render determination only from "financial" aspects and not those on which the Fund may render determinations from *any* relevant aspect. Financial aspects include the domestic and external monetary, fiscal, credit, and investment position of the member. They also embrace inflationary and deflationary movements in connection with the import restrictions under consideration. A few examples covered by the term "other" matters are the existence of an imminent serious threat to monetary reserves, the domestic and external causes of the threat, the nature of the balance of payments difficulties requiring protective import measures, corrective measures alternative to import restrictions, and possible effects of import restrictions and of alternative measures on the economies of other members.

In conclusion, it may be said that the ITO will determine on its own responsibility whether the *extent* of import restrictions applied (or contemplated) by a member is justified in the light of the Charter. However, in making this decision the weightiest factors which the ITO will take into account will be the Fund's determinations on certain monetary problems and the Fund's findings on facts in the monetary field.

*Special exchange agreements*

With one insignificant exception<sup>40</sup> the Charter requires that its members either join the Fund or enter into a special exchange agreement with the ITO.<sup>41</sup> The most important provisions of the Charter could be made ineffective if nonmembers of the Fund were free to act in the field of exchange policies according to their discretion though bound by the provisions of the Charter in respect to trade policies. The special exchange agreement is intended to be a substitute for Fund regulation, subjecting nonmembers of the Fund to a reasonable discipline in respect to exchange stability and exchange restrictions.

There will be very close cooperation between the ITO and the Fund in respect to the preparation, conclusion, and administration of special exchange agreements. The Fund will determine, in the course of consultations, whether an ITO member's action with respect to exchange matters is in accordance with the terms of a special exchange agreement (Art. 24).

The special exchange agreement will probably cover the following four groups of related obligations: (a) general collaboration on exchange stability with other ITO members, (b) establishment of a par value of the member's currency governing official gold transactions and exchange rates, (c) par value changes to be made only after consultation with ITO (or its prior approval) and only to correct a fundamental disequilibrium, and (d) the subjecting of restrictions on international payments to prior approval of the ITO.

A model text for a special exchange agreement was adopted by the Contracting Parties to GATT at their Annecy session in June 1949. This document will serve as the basis for discussions with the ITO.

The position of ITO members which are not members of the Fund and which have not yet concluded a special exchange agreement may be briefly indicated: Such members may be required (a) to consult

<sup>40</sup> A member is not required to conclude a special exchange agreement so long as it uses solely the currency of another member and so long as neither the member nor the country whose currency is being used maintains exchange restrictions, provided further that the ITO is not of the opinion that the absence of a special exchange agreement may result in frustrating any provision of the Charter (Art. 24, par. 6). There is little probability that this exceptional rule will be widely used.

<sup>41</sup> ITO members which are autonomous in the conduct of their external commercial relations but do not maintain diplomatic relations on their own behalf will not be able to be covered by the Fund Agreement unless the metropolitan territory to which they belong joins the Fund. As mentioned elsewhere in this study, Fund membership is restricted to countries which are carrying on their foreign relations under their own responsibility. However, a nonmetropolitan territory may have the capacity to become a member of the ITO and consequently to conclude a special exchange agreement.

at any time with the ITO on any exchange problem (the ITO is therefore authorized to require them not to make changes in their exchange system without prior consultation), (b) to supply the ITO with information on exchange matters within the general scope of Article VIII, Sec. 5 of the Fund Agreement, (c) not to frustrate, by exchange action, the intent of the provisions of that section of the Charter which deals with Quantitative Restrictions and Related Exchange Matters (Art. 20-24). Before concluding a special exchange agreement, nonmembers of the Fund cannot take advantage of those provisions of the Charter which restrict the use of certain exceptions to the rule of nondiscrimination to those members authorized to take advantage of the transitional period under the Fund Agreement or under a corresponding provision of a special exchange agreement (e.g., Art. 23, par. 1 and Art. 24, par. 8).

### *The frustration clause*

The frustration clause included in Article 24, par. 4 of the Charter reads as follows:

Members shall not, by exchange action, frustrate the intent of the provisions of this Section, nor, by trade action, the intent of the provisions of the Articles of Agreement of the International Monetary Fund.

Thus, members of the ITO are under obligation not to "frustrate" by trade action the intent of the provisions of the Fund Agreement (Art. 24, par. 4). This provision applies to both members and nonmembers of the Fund. The "trade action" does not refer only to trade measures which are inconsistent with the provisions of the ITO Charter. It refers also to trade action which in the absence of the frustration clause would be consistent with the Charter. In order to comply with this provision, the "intent" of the provisions of the Fund Agreement must be knowable to ITO members.

ITO members must not frustrate the intent of the provisions included in Section IV-B of the Charter (Quantitative Restrictions and Related Exchange Matters) by exchange action which is inconsistent with the Fund Agreement or with the terms of a special exchange agreement. This clause is applicable without limitation to the exchange actions of ITO members which are not members of the Fund and have not yet concluded a special exchange agreement. However, members which are Fund members or which have concluded a special exchange agreement are not precluded by the frustration clause, or by other provisions of the Section on Quantitative Restrictions and Related Exchange Matters (Art. 20-24), from using exchange controls and exchange restrictions which are consistent with the Fund Agreement

or with a special exchange agreement (Art. 24, par. 8). But they may be precluded from using such authorized exchange measures by Charter provisions other than those included in Section IV-B (e.g., on export subsidies or on most-favored-nations treatment).

### *Restrictions on purchase and sale of services*

In order to safeguard its external financial position, a country may wish to prohibit or restrict transactions by its residents involving the purchase or sale of services abroad. These transactions may be controlled by licensing payments for the purchase of such services or by requiring residents to surrender the foreign exchange acquired by their sale.

However, restrictions on service transactions may be achieved also in a direct way. The purchase of services from abroad may be prohibited outright or restricted in respect to kind, quantity or sources. For example, the purchase of insurance from certain countries may be prohibited or restricted to certain types of insurance. Also, the sale of services abroad may be prohibited, restricted, or made subject to license. For example, the chartering of ships by foreign residents may be prohibited, or made subject to certain conditions or to licensing.

Restrictions on payments in connection with service transactions are undoubtedly subject to the provisions of the Articles of Agreement of the Fund in the same way as other restrictions on payments. However, if service transactions are restricted by quantitative limitations they are not subject to either the Fund or the ITO except insofar as they are incidental to merchandise transaction. The fact that the provisions of the ITO Charter do not cover quantitative restrictions on service transactions does not, however, imply that the Fund and the ITO, when considering the balance of payments position of the country, will disregard the repercussions of quantitative restrictions on services on the external financial position of the member.

### Organizational Matters

Presumably the Fund will accept the functions which it is requested to perform pursuant to the terms of the ITO Charter. A draft agreement covering fundamentals has been prepared and will be submitted for formal approval to the first Conference of the ITO and the Board of Governors of the Fund. On the establishment of the ITO, a number of administrative understandings on a variety of matters will be concluded with the Fund. Liaison problems will be easily settled if the seat of the ITO is in or near Washington, D. C. More complicated

liaison problems may arise if the ITO's central office is located outside the North American continent. The Fund will certainly take advantage of the knowledge and experience of commercial policy relations which the ITO will acquire.

### *The General Agreement on Tariffs and Trade (GATT)*

GATT is a multilateral trade agreement concluded among 23 nations<sup>42</sup> representing more than 75 per cent of world trade. GATT consists of tariff provisions and related regulations on the one hand, and of provisions concerning general commercial policy on the other. It is organically and legally independent of the ITO; however, the two arrangements (GATT and ITO) are closely connected ideologically, and are expected to merge in respect to the application of general provisions on commercial policy. The tariff sections of GATT are expected to be administered by the executive organs of ITO. The substance of the provisions of the ITO Charter which are of greatest interest for the Fund, especially the balance of payments provisions, is also embodied in GATT. These provisions are adopted only "provisionally." During such provisional application, a contracting party may give 60 days' notice of withdrawal, and the provisions of these articles are to be applied to the fullest extent in a fashion not inconsistent with the existing domestic legislation of the individual contracting parties. In other words, a contracting party is not required to adjust its statutory law to GATT during the period of the "provisional application" of GATT, but the member is required not to adopt new statutory provisions which are inconsistent with the terms of GATT. The contracting parties are required to observe the general principles embodied in the ITO Charter<sup>43</sup> to the fullest extent of their executive authority.

The Third Session of the Contracting Parties took place at Annecy between April and August 1949 when ten other countries<sup>44</sup> expressed their wish to join the Contracting Parties.

<sup>42</sup> The 23 nations are Australia, Belgium, Brazil, Burma, Canada, Ceylon, Chile, China, Cuba, Czechoslovakia, France, India, Lebanon, Luxembourg, Netherlands, New Zealand, Norway, Pakistan, Southern Rhodesia, Syria, Union of South Africa, United Kingdom, United States.

<sup>43</sup> More exactly, until all contracting parties adopt the amended version of Article XXIX of GATT, the contracting parties are to observe the general principles embodied in the Geneva version of the ITO draft charter. At the time of writing of this study, only Brazil and Chile have not yet accepted the amended version of Article XXIX of GATT.

<sup>44</sup> Denmark, Finland, Italy, Greece, Sweden, Dominican Republic, Haiti, Liberia, Uruguay, Nicaragua.

An informal understanding exists between the Fund and the Contracting Parties concerning procedures of consultation.

The GATT is not a substitute for the ITO. However, it is for the time being the only comprehensive international mechanism dealing with general problems of commercial policy on the same basis as the ITO.

### *Interim Commission for the ITO*

The Havana Conference established an Interim Commission to prepare various organizational matters of the future ITO and also to call the first Conference. In its only session on March 20, 1948 (in connection with the final session of the Havana Conference), the Interim Commission elected an Executive Committee consisting of 18 members to which it delegated all its powers and duties. The Executive Committee held two sessions and a few informal meetings at Annecy, in June 1949. A third session is expected to be called when the approximate date of the first Conference is known (pending, of course, a sufficient number of ratifications, especially those of the United States and the United Kingdom).

The Fund has discussed with the Executive Committee its contemplated agreement with the ITO and various other preparatory measures.

### *Agreement between the ITO and the Fund*

Article 24 of the ITO Charter requires the ITO to seek (a) cooperation with the Fund to the end that the two organizations may pursue a coordinated policy in respect to problems of common interest and (b) an agreement with the Fund regarding procedures in consultation. In addition, Article 87 of the Charter requires the ITO to make arrangements with intergovernmental organizations having related responsibilities (e.g., the Fund) to provide for effective cooperation and for the avoidance of unnecessary duplication in the activities of the organizations. Regarding implementation of these provisions, the United Nations Conference on Trade and Employment, which adopted the ITO Charter at Havana in March 1948, passed a Resolution requesting the Interim Commission of the ITO to prepare documents and recommendations necessary for the cooperation of the ITO and other intergovernmental organizations. In pursuance of that Resolution, a draft was prepared and adopted by the Executive Committee of the Interim Commission at its Second Session in Geneva and by the Executive Board of the Fund. After consideration by the interested govern-



ments, the draft is to be submitted for final approval to the first Annual Conference of the ITO and to the Board of Governors of the Fund. The draft in substance and language is, as far as practicable, adjusted to the Fund-United Nations Agreement.

The following are the principal provisions of the draft:

- (1) The Fund agrees to cooperate with the ITO in accordance with the terms of the Charter.
- (2) The organizations will consult on matters specifically referred to in the Charter and on other matters agreed to be of mutual interest. Findings and determinations of the Fund shall be communicated in writing.
- (3) The Fund will give technical assistance to the ITO in preparing its reports on discriminatory import restrictions.
- (4) Reciprocal representation at meetings will be arranged. Close liaison will be maintained on the basis of separate understandings.
- (5) Subject to necessary limitations to safeguard confidential information, the two organizations will exchange information to the fullest practicable extent.<sup>45</sup> Unnecessary duplication will be avoided.

<sup>45</sup> Both the Fund and the ITO are designated in their respective constitutions as "centers of information" on certain, more or less circumscribed, subjects. The Fund is a center of information on monetary and financial problems (Art. VIII, Sec. 5(c) of the Fund Agreement). The ITO will serve as the center for information on external trade in goods, on government revenue from customs duties and other charges imposed in connection with imports and exports, and on subsidies affecting international trade. The statistical material issued by the ITO should be so arranged as to reveal the "operation of any restrictions on importation or exportation which are based on or regulated in any manner by quantity or value or amounts of exchange made available." (Art. 39)

Article 24, par. 7 of the Charter provides that ITO members which are not members of the Fund shall supply the ITO with information along the same lines as are required by the Fund from its members in accordance with Article VIII, Sec. 5 of the Fund Agreement. The ITO-Fund Agreement contains a provision that this material will be made available to the Fund so that the Fund may be in a position to consult effectively on matters concerning nonmembers of the Fund.

FUND ACTION WHEN CONSULTED BY ITO ON PROBLEMS CONCERNING MONETARY RESERVES, BALANCE OF PAYMENTS OR  
FOREIGN EXCHANGE ARRANGEMENTS

(Art. 24, par. 2 of the Havana Charter)

1	2	3	4
Findings on facts	Determinations whether exchange action authorized	Determinations on monetary reserves	Advisory opinions
Fund renders findings of statistical and other facts relating to foreign exchange, monetary reserves, and balance of payments.	Fund determines whether action by a member with respect to exchange matters is for Fund members in accordance with the Articles of Fund Agreement, or for non-Fund members in accordance with the terms of the respective special exchange agreement.	Cases involving the criteria set forth in paragraph 3(a) of Article 21 in which the ITO renders a final decision, and where in order to reach a final decision the ITO has to examine the situation in the light of <i>all</i> pertinent provisions of Article 21: Fund when consulted in such cases may render determinations as to what constitutes a serious decline in the member's monetary reserves, a very low level of its monetary reserves, or a reasonable rate of increase in its monetary reserves. Fund also renders determinations as to the financial aspects of other matters covered in consultation in cases involving the criteria set forth in paragraph 3(a) of Article 21.	Fund renders advisory opinions which do not have the character of "findings" and "determinations."

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