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A Thesis Submitted For the Degree of Doctor of Philosophy by A.S. Papageorghiou, M.A. (Edin.)
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PART I. THE BACKGROUND.
CHAPTER I. INTRODUCTION.

Levels of Discussion.

In the vast literature which discusses the causes of international payments unbalance in the post-war years, two kinds of difficulties have occasionally been the source of some confusion. The first group of difficulties arises from failure to distinguish between different levels of analysis. Immediate causes of external disequilibrium have in their turn their own cause; and so on, ad infinitum. Explanations which appear contradictory at first sight may simply represent attempts to treat the subject at different levels.

Viewed in this light, an infinite number of levels of discussion is, of course, theoretically possible. However, three such levels can be conveniently distinguished. There is, firstly, the factual level. It usually takes the form of a comparison between balance of payments figures in a base year and the same figures in the period under review. Even at this level, perfect clarity may be an unattainable ideal. Changes in individual items by themselves may mean little; their significance can only be fully appreciated when they are compared with other changes in the balance of payments or in the domestic economy. Different backgrounds may give entirely different pictures. Although the relevant background depends on the objective of each study, it is quite possible that different economists would consider different backgrounds as relevant to the study of the same problem. The views of two well-known economists on changes in earnings on United Kingdom foreign investments provide a good illustration.

"It ought not to be possible to put forward as an explanation of
current difficulties the view that the United Kingdom has lost all its overseas investments... It is essential for a balanced estimate, to show that on investment income account the United Kingdom is not a debtor... that income from overseas investment in 1945 was only slightly less, and in 1950 appreciably more than in 1938..."1

As a factual statement, this is entirely accurate. But is it not relevant to point out that prices have risen considerably since 1938 and that investment income, expressed as a percentage of current imports, has greatly declined since pre-war days? It is perhaps considerations of this nature which another author has in mind when he states that "the loss of external resources has fallen especially on Great Britain".2

At best a factual record of changes in the balance of payments can provide considerable insight into the processes through which the changes have been effected; but by itself it cannot offer an explanation of causes. At a second level of analysis, the entirely descriptive plane can be abandoned in favour of an explanation of balance of payments difficulties which is given in terms of immediate causes. This level is perhaps best suited to a discussion of changes in individual items in the balance of payments over a relatively short period of time. As an example, one can take a possible decline in the volume of British exports to the U.S. between successive years. One cause could be the imposition of new or increased customs duties on British goods imported into

the U.S. Alternatively, the decline in the volume of exports could be the result of a temporary recession in the American economy; or it might be due to an increase in domestic wage costs (and prices) which renders British exports uncompetitive. Some of these immediate causes may, however, be directly attributed to other independent influences. A third level of discussion is, therefore, necessary. It may be termed as the level of "ultimate" or "fundamental" explanations.

The difference between the first and the second levels is one of kind; the difference between the second and third is one of degree. In the latter case the dividing line is not clearly marked. The chief features of explanations at the third level of discussion are that they are more dynamic than those at the second level. They are concerned not with a rise in wages, but with a rising wage level; not with a once-and-for-all increase in American import duties, but with a constantly changing American tariff policy. These factors are therefore persistent, and their impact is reflected in the balance of payments position of a country over fairly long periods of time. Another characteristic of explanations at this level is that they take a comprehensive view of the effects of these "fundamental" factors; they examine these effects in relation to the balance of payments taken as a whole. The best example of such factors is perhaps provided by the rate of increase of productivity in one country compared with that in other overseas countries.

These distinctions between different levels of discussion will, in particular, help to clear up one possible source of confusion. For example, to claim that the weakness of the British
external position over the post-war period has been due to a relatively slow rate of increase in productivity does not necessarily preclude the possibility that the balance of payments may have deteriorated between two successive years in the same period as a result of the operation of other factors. These other factors may be specific symptoms and manifestations of a slow rate of economic expansion; or they may be distinct and directly unconnected with the rate at which productivity increases, for example, a faster rate of building up stocks of imported commodities.

**Types of Explanation.**

The second group of difficulties arises from failure to interpret consistently the term "cause". The distinction which is usually drawn is that between monetary and non-monetary (or structural) factors affecting a country's balance of payments. The basis for making this distinction is that certain factors, notably monetary policy, affecting the external position of a country can be varied at short notice by a policy decision, whereas others, like the rate of increase of productivity, cannot. To put it in the most usual manner, a monetary approach will claim that the unbalance of international payments has been caused by inflationary pressures being habitually stronger in certain countries than in others.

In a wider sense, then, causes of balance of payments disequilibrium may include policy decisions. But from the point of view of one particular country, policy decisions taken by foreign

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1 In this context and for this purpose, the term "monetary" should be interpreted very broadly as covering the whole financial policy of a nation.
governments are in the nature of structural factors in that the
government at home has little immediate or direct control over
them. The factors which affect the balance of payments of a
particular country or group of countries can be most meaningfully
divided into three groups. There are, first, domestic (or "monetary") factors, like a change in the interest or exchange rates
which are the result of policy decisions taken at home. In the
second place, there are the purely external factors, like the
commercial policy of other nations, which can only be modified by
a policy decision on the part of foreign governments. Thirdly,
there are structural factors, like the rate of increase of pro-
ductivity and the composition of a country's exports, which, in
the short and medium runs at least, cannot be radically changed
by policy decisions taken either at home or abroad. In contrast
to the first, the two last groups have this distinctive character-
istic in common: they are beyond the direct control of the
national government in question.

Making the broadest possible interpretation, causes of
external disequilibrium may emanate from changes in any of these
three groups of factors. Any restriction of the scope or meaning
attached to the term "cause" should be made explicit if unnecessary
confusion is to be avoided. For example, given reasonable time, a
balance of payments disequilibrium, irrespective of origin, can be
remedied by appropriate "monetary" policy. Although productivity
cannot be varied to suit the state of the balance of payments,
financial measures, including exchange rate adjustments and direct
controls which improve the balance of payments, can almost always
be devised. It is on such grounds that Robbins argues\(^1\) that any

\(^1\) L. Robbins: The Economist in the Twentieth Century, Macmillan,
London 1954, p.50.
external disequilibrium which *persistence* over a fairly long period of time is of a "monetary" nature, i.e. it can, in a sense, be attributed to factors within the control of a national government. Though there is a sense in which this argument is doubtless correct, this interpretation of a persisting disequilibrium cannot be accepted. It leaves out the possibility that throughout the period of payments unbalance, there may be forces beyond the control of a national government, such as productivity and foreign economic policies of other countries, which operate, in a *dynamic* way, to frustrate "monetary" attempts to attain external balance.

In practice it is not always easy to say whether a change is or is not due to a policy decision taken at home. There are many borderline cases. For example, the imposition of new import restrictions by a foreign country may be the outcome of a policy of retaliation initiated and provoked by similar steps taken at home.

From a methodological point of view the distinction is useful. An analysis of factors which are beyond the control of a national government requires a different type of approach from that which is applied to those factors which are the result of policy decisions made at home. The latter factors logically raise different questions which are probably not capable of being answered with any degree of certainty. External equilibrium is a desirable economic objective. To argue that the balance of payments difficulties of a country are due to its own policy decisions is, at first sight at least, a contradiction in terms. Policies which do result in external difficulties can be interpreted in two ways. Either the policies pursued are wrong in the sense that they have repercussions on the country's external position which were not anticipated, or
they are followed, in full knowledge of their external implications, simply because they lead to the attainment of other policy objectives, e.g. maximisation of production or a changed distribution of wealth. This line of enquiry raises questions which belong to the sphere of welfare economics: for instance, which are these other (and presumably higher) policy objectives; are they compatible with one another; and generally, what is the connection between international trade and economic welfare? On the other hand, changes in the balance of payments which are due to influences beyond the control of a national government need not logically be discussed from this point of view in an enquiry into the causes of external disequilibrium; for, from the point of view of the country in question, such changes are a datum. There is no question of choice.

Scope of Analysis.

The analysis which is presented here is not intended as a critique of the financial policy of the United Kingdom; more specifically, it is not intended to discuss the welfare aspects of the British balance of payments policy. However, the relevance of the domestic situation to the external problem is discussed in very broad terms in the earlier sections of chapter 2.

This thesis is mainly concerned with the impact on the British post-war payments position of factors which, in one sense or another, can be said to be beyond the direct control of the government of the U.K. The rather broad span of the post-war years is viewed as a whole in order to determine those influences which have had a more than transitory effect. Detailed examination of year-by-year changes in the British balance of payments is, therefore,
out of the question. Apart from chapter 2 of Part I, the discussion is conducted at what has been referred to above as the third level of analysis.

In the remainder of Part I the post-war payments difficulties of the U.K. are explored. The analysis here is generally at the factual level, and takes the form of a description in statistical terms of changes between 1938 and recent post-war years. It is pointed out that the chief problem has been the emergence of a dollar deficit.

In Parts II, III and IV an attempt is made to offer some explanation of the British dollar problem. In Part II it is argued that the problem is fundamentally a structural one, and it is contended that a faster rate of increase of productivity in the U.S. compared with that in Britain and other European countries will tend to create payments difficulties for countries like the U.K. This will be especially so if increases in productivity are concentrated in U.S. export industries.

The impact of foreign economic policy of the U.S. on the British balance of payments problem forms the subject matter of Part III. Two aspects come under closer consideration; foreign investment policy and tariff policy.

In Part IV, the institutional payments mechanism through which Britain and other Western European countries have tried to face the situation created by the dollar problem is examined. The chief characteristic of this mechanism is its regional nature. Some general considerations on the probable balance of payments effects of regional trade and payments institutions are examined. Two such institutions, the Sterling Area and the European Payments Union are given detailed
treatment; their effects on the balance of payments of the U.K. are later discussed.
CHAPTER 2. THE NATURE OF THE POSTWAR BALANCE OF PAYMENTS DIFFICULTIES OF THE UNITED KINGDOM.

SECTION A. SOME GENERAL CONSIDERATIONS.

Domestic Developments and External Stability.

The advent of conditions of full or near full employment in the United Kingdom has important implications for the balance of payments position of this country. Further expansion of production is likely to be gradual and the result of a faster rate of increase of productivity. A country's external balance is equal to what it produces less what it absorbs at home. At full employment the balance can only be improved if the domestic absorption of resources is slowed down. The usual channels through which the balance of payments is strengthened, such as reductions in export prices and the imposition of import restrictions, are only effective to the extent to which they operate to reduce the national expenditure.

In the nature of the case, one cannot be dogmatic about the effects of currency devaluation and similar measures on the rate of domestic absorption of resources.¹ Take, for example, what is considered to be one of the most effective methods for improving the balance of payments, namely, the imposition of import restrictions. Whether the domestic expenditure is reduced depends on what happens to the outlay formerly expended on imported goods the supply of which has now been cut off. If the money is saved the import restrictions would have achieved their purpose. Availability of domestic substitutes is a drawback rather than an advantage. Increased spending on domestic substitutes will divert the resources of the fully employed economy away from export to domestic uses.

tic uses. On the other hand, if the imported goods are unique in the sense that people who formerly bought them choose now to save their money in anticipation, perhaps, of being able to obtain these goods at some future date rather than spend their money on goods at present available at home, then the balance of payments will, in the normal course of events, be improved. Many goods, perhaps even most, are not unique in this sense. In many instances, therefore, the imposition of import control will not result in an improvement in the balance of payments. Similar reasoning can be applied to all measures which tend to lower a country's export prices.

In the post-war years the balance of payments is likely to be inherently more unstable than in 1938 when there were considerable reservoirs of idle productive resources. Small increases in national expenditure are unable to call forth corresponding increases in domestic production of goods and services; they result either in an expansion of imports, or in inflationary pressures on domestic resources leading, indirectly, to weaknesses in the balance of payments. Viewing the problem from another angle, it can be asserted that, under conditions of full employment, certain stabilising factors usually present in the economic system become less potent influences in maintaining or restoring external equilibrium. Reductions in export prices, for instance, may not lead to an expansion of their volume, even though price elasticities are high.

Full employment is not the only new factor which makes for increased instability in the balance of payments in the post-war period. Changes in the armoury of government policies are also

important. The British government has relied, and still relies to a lesser extent, much more heavily on the use of direct import controls than it did in the thirties as a means of keeping the economy of the country on an even keel. Direct controls are flexible instruments of policy. But a sequence of tightening and relaxing import restrictions has unfortunate effects on what is probably, in any case, the most unstable item in the balance of payments, namely the rate of building up of stocks of imported materials. In the face of import restrictions stocks are run down. When the situation improves and restrictions are relaxed, inventories are built up to a level sufficiently high to take care not only of present needs but also of requirements during the expected period of renewed and intensified restrictions. In the process, a balance of payments crisis is precipitated.

There is an obvious limitation to the applicability of this argument. The U.K. draws a large proportion of her primary imports from Sterling Area countries. In 1952-4, 48.6% of her imports of foods, beverages and tobacco, 45.3% of her imports of basic materials, and 64.8% of her imports of mineral fuels and lubricants came from Sterling Sources. In the U.K. no direct import restrictions were imposed on Sterling trade. It is true that the U.K. government entered into no definite agreement to refrain from imposing direct restrictions on imports from the Sterling Area. If the importers' fear that direct restrictions on sterling trade may be imposed is accepted as a potent factor in the inventory cycle, the whole argument will be weakened. For it has been assumed that importers, in building up excessive stocks, are influenced by past experience.
In Britain the inventory cycle was greatly assisted by the cheap money policy pursued by the United Kingdom government during the earlier post-war years. The influence of monetary policy on stock accumulation has often been acknowledged in official circles. In the Economic Survey for 1955, for instance, it was stated that there was a marked increase in total stocks and work in progress during 1954 and that some further increase was likely in 1955. "But the increase should be no more than that required by the growth of demand and production; the recent changes in monetary policy are intended to prevent any undue stock-building."¹

**Periodicity of Balance of Payments Crises.**

The external implications of full employment and the widespread use of direct import restrictions also help to explain the regularity of sterling crises. With the one exception in 1953, there have been payments difficulties in every alternate year since 1947. Neither of these influences, however, can be accepted without qualification as an explanation of the biennial pattern of the ailments of sterling. It is evident that, under full employment, any measures designed to restore external balance may unleash forces which are likely to cause renewed weakness in the balance of payments at some future date. But there is nothing inevitable about the timing of crises. In fact, a two-year period seems too short for completion of the whole cycle of operations which are envisaged: a cut in domestic consumption or investment is followed by an expansion of exports; domestic money incomes are at first unchanged, while there is a reduction in supplies of currently

¹ Economic Survey for 1955, Cmd 9412, p.43.
available goods eventually leading to a rise in domestic prices and incomes and diversion of goods from the export to the home market.

Moreover, this argument is to some extent incompatible with that which associates fluctuations in inventories with a policy of direct import controls. It assumes that import restrictions are not flexible, or, at any rate, that they are not relaxed with the improvement in the balance of payments. The experience of a number of countries has varied widely; many have been too slow in removing import controls no longer justified on balance of payments grounds. There is no doubt that the policy of the U.K. government does not fall within this category.

Some economists find in a policy of direct import restrictions an explanation of the timing of Sterling crises. "The regularity with which the United Kingdom depended upon drastic import restrictions to meet these payments difficulties, regardless of the major contributing cause of the drain on reserves, helps to explain the biennial pattern of Sterling difficulties. Since output both for the home market and for exports was uninterrupted, the reduction in imports led to a running down of inventories which had to be replenished as soon as the loss of reserves had been terminated."¹

¹ S.I. Katz: Sterling's Recurring Post-war Payments Crises, in the Journal of Political Economy, Vol.LXIII, June 1955, p.218. On page 216 of the same article it is stated that recurring speculation against sterling "which largely took the form of leads and lags in sterling payments by merchants in connection with their normal trading operations" also helps to explain the biennial pattern of the payments difficulties.
Inventory fluctuations, made more acute by the policy of direct import controls, increase the instability of the balance of payments. They also offer a partial explanation of the biennial cycle which has characterised Britain's external difficulties since the end of the war. In terms of changes in the current account balance of the U.K., the position deteriorated substantially in 1947, 1951 and 1955; in terms of changes in the official gold and dollar reserves, it did so in 1949 as well as in 1947, 1951 and 1955. One distinctive feature of a cut in imports through the imposition of direct controls is that, for a while, it is unlikely to lead to an overall decline in industrial production. Stocks of imported commodities are run down; as soon as the import cuts are removed, they are again built up to a satisfactory level.

In this manner, replenishing and running down of inventories tends to impart a certain degree of regularity to changes in the balance of payments. Statistics on inventories are notoriously deficient. Apart from an occasional hint in the annual Economic Surveys, no information is available about stocks of imported commodities. If, however, changes in the volume of imports, taken in conjunction with the index of industrial production, are accepted as a rough indication of changes in stocks of imported commodities, there is strong evidence to suggest that stocks were run down in most years in which reserves were accumulating; and vice-versa.

Table 1 illustrates this point clearly. In 1947 the index of industrial production rose by 5.7%, while imports expanded by 13.0%. In 1949 the increase in imports only slightly exceeded

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1 See, however, the article by Katz, cited above, especially the table on page 218. See also Sir Henry Clay: A Note on Stocks, in Journal of Industrial Economics, April 1954.
the rise in industrial production; but in 1951 and 1955 large
increases in the volume of imports of 13% and 11% were not matched
by corresponding changes in the index of industrial production which
rose by only 2.6% in 1951 and 4.6% in 1955. The faster expansion
of imports relatively to industrial production probably represented
an increase in inventories; except, perhaps, in 1955 when the largest
rise in the volume imports occurred in the category of manufactures.
By contrast, in 1948, 1950, 1952 and 1954 the index of industrial
production rose much more (or fell less) than the volume of imports.

Table 1. Annual Rate of Increase In Industrial Production and in
the Volume of Imports in the United Kingdom, 1947-55.

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Production</td>
<td>5.7</td>
<td>8.7</td>
<td>6.0</td>
<td>7.5</td>
<td>2.6</td>
<td>-2.6</td>
<td>6.1</td>
<td>6.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Volume of Imports</td>
<td>13.0</td>
<td>5.7</td>
<td>8.7</td>
<td>0.0</td>
<td>13.0</td>
<td>10.6</td>
<td>10.9</td>
<td>1.8</td>
<td>11.0</td>
</tr>
</tbody>
</table>

are taken from Economic Survey, 1956 Cmd 9728.

It is not likely that an inventory boom, following the easing
of import restrictions, will possess sufficient momentum of its own
to bring about a new balance of payments crisis. In each instance
the external difficulties which the U.K. and the Sterling Area
experienced in almost every alternate post-war year were the result
of different and generally independent factors. The timing of the
onset of each external crisis, as distinct from its duration, was
probably accidental. Inventory fluctuations cannot completely
explain away the two-year pattern because they were not the only
or the major influences present in every year in which sterling was
under intensified pressure.
There are limits to the swift implementation of policy decisions; even when they are decisions to restrict imports by the imposition of physical controls. Professor Fleming has suggested that the cause of the regularity of sterling crises is to be found not in the underlying economic situation in the U.K., but rather in the mechanism of the Sterling Area; and, in particular, in the absence of any continuous machinery for joint consultation at an executive level between member countries. "This discontinuity of joint action, together with the time lag which inevitably occurs between taking decisions on import policy and seeing the effects of the decisions on the balance of payments, largely account for the two-year cycle which has been evident since the war in the balance of payments position of the Sterling Area."¹

This argument combines some aspects of the two previous explanations of the periodicity of balance of payments crises. It stresses the effects of relying on a policy of restricting imports for dealing with external difficulties; this theory, however, makes no specific reference to stocks but is given in terms of the total import bill of Sterling Area countries. At the same time, it implicitly assumes that, under conditions of full employment, a large export surplus may generate inflationary pressures at home. These two principles, taken together, dispense with the necessity of assuming the existence of independent and random factors which set the ball rolling at the outset of each external crisis.

Presumably, the order of events Professor Fleming has in mind is as follows. As a general rule, the balance of payments position of a country or group of countries depends primarily on the extent to which imports are restricted. At first, if restrictions on imports are relaxed, the balance of payments worsens; if intensified, it improves. Under any circumstances, it takes time for the effects of import restrictions to be reflected in the balance of payments. In the case of the Sterling Area, changes in import policy itself in the light of the external position are delayed because appropriate machinery for the formulation of a coordinated and continuous Sterling Area policy does not exist. Import controls remain effective longer than is required on balance of payments grounds. The inflationary impact of the export surplus drives prices up and diverts resources to the home market. The balance of payments, once more, begins to deteriorate. New import controls are needed; they cannot be imposed in time to prevent another cyclical crisis because of imperfections in the mechanism of the Sterling Area.

The evidence indicating that the policy-making mechanism of the Sterling Area is seriously defective is overwhelming; it cannot be disputed. But the interpretation placed on these shortcomings as offering an explanation of the biennial pattern of Sterling difficulties is subject to most of the qualifications which have been outlined in preceding pages in connection with the discussion of

1 See, for instance, A.R. Conan, op.cit.,pp.155-162. Also chapter 8 of this thesis. A former Chancellor of the Exchequer complained that the whole Sterling Area was still operating in 1950 import cuts decided upon at the Finance Minister's Conference in July 1949. See Hugh Gaitskell, The Sterling Area, in International Affairs, April 1952, p.173.

2 The interpretation itself has received much support. In two comments on Professor Fleming's paper, A.O.Hirschman and R.Triffin express their approval of his "time lags" theory. See American Economic Review, Papers and Proceedings, May 1952, pp.360 and 364.
the two earlier theories of cyclical movements in sterling's position. In particular, this explanation of the two-year pattern cannot be easily reconciled with the fact that each sterling crisis was initiated by independent factors. For instance, if the U.K. government had not attempted to fulfil its obligations relating to sterling convertibility under the Anglo-American Financial Agreement, the 1947 crisis would probably have been averted.

The Level Of Foreign Exchange Reserves.

The actual timing and biennial pattern of sterling difficulties was to some extent accidental and probably without any very great significance. But their frequency over the post-war period indicates that they were the symptoms of permanent and deep-seated maladjustments. The position of sterling was fundamentally weak. At any time, even the slightest adverse influence could affect the balance of payments in a manner out of all proportion to its intrinsic importance.

The weakness of sterling was reflected in the level of foreign exchange reserves. The low level of reserves was, in turn, closely connected with the frequency of balance of payments crises. Increased instability in the balance of payments called for larger reserves. Instead, the low level of monetary reserves reduced the margin of time within which a government could pursue policies designed to maintain external equilibrium. By reducing the margin of time, it also narrowed down the choice of policies. The type of policy adopted had to be swift and effective; few policies satisfied better these criteria than that of import restrictions. Reliance on import controls tended to increase the instability of the balance of payments.
Many of the factors which have apparently been responsible for the frequent external crises of the Sterling Area were of a temporary nature. Foreign exchange reserves are intended to take care of swings between favourable and unfavourable payments positions over a normal economic cycle. If the gold and dollar reserves of the Sterling Area were higher, temporary deficits would lose much of their significance; for instance, confidence in sterling abroad would be less easily shaken and some adverse capital movements might be averted.

In Table 2 the level of gold and dollar reserves of the Sterling Area in selected post-war years is compared with that in 1938. If monetary reserves are to perform their functions satisfactorily, they must reach a certain minimum level. The most relevant criteria of this level are not the absolute value of a country's imports and exports, but rather the fluctuations in the country's net earnings of foreign exchange. Fluctuations in the U.K. balance of payments on current account during the post-war period were very large compared with those in the period immediately preceding the war. Although the need for foreign exchange reserves was greater, they remained throughout the post-war period at a level very much below that of 1938. In real terms they were even more so: in 1938 gold and dollar reserves represented 93% of British imports, in 1950 45% and in 1955 only 20%.

1 For a discussion of the functions of foreign exchange reserves, see The Adequacy of Monetary Reserves, IMF Staff Papers, October 1953, pp.181-227.
2 In 1936 the U.K. had a deficit on current account of £18m., in 1937 of £56m. and in 1938 of £55m. These estimates (Board of Trade Journal, 23 Feb. 1939) are on a different basis from those given in the Balance of Payments White Papers; but they do indicate the order of the magnitude involved.
3 R.G. Opie has indicated that monetary reserves are also inadequate on capital account. In 1953 and 1954 total reserves covered just over 80% of the short-term liabilities of the U.K. to non-sterling countries. London and Cambridge Economic Bulletin, March '56, p.11.
## Table 2.
Gold and Dollar Reserves of the Sterling Area.

<table>
<thead>
<tr>
<th>Year</th>
<th>Monetary Reserves (million dollars)</th>
<th>Reserves as % of U.K. Imports (%)</th>
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<tbody>
<tr>
<td>1938</td>
<td>4180</td>
<td>93</td>
</tr>
<tr>
<td>1948</td>
<td>1856</td>
<td>22</td>
</tr>
<tr>
<td>1950</td>
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<td>45</td>
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<tr>
<td>1951</td>
<td>2335</td>
<td>21</td>
</tr>
<tr>
<td>1952</td>
<td>1846</td>
<td>19</td>
</tr>
<tr>
<td>1953</td>
<td>2518</td>
<td>27</td>
</tr>
<tr>
<td>1954</td>
<td>2762</td>
<td>29</td>
</tr>
<tr>
<td>1955</td>
<td>2120</td>
<td>20</td>
</tr>
</tbody>
</table>

a—For 1938, position on 31st March; all other figures are for the end of the year.
b—In 1938 reserves worth 2877 million dollars were held in the form of gold.

Sources: Cmd 7928, Cmd 8976 and Cmd 9731; IMF International Financial Statistics.

It is easy to indicate one immediate cause of the low level of foreign exchange reserves in the post-war period. "The plain fact of the matter is that, at the present valuation of gold in terms of goods, not all the gold in the world (including that in Fort Knox) is sufficient to provide nations with adequate reserves."\(^1\) Between 1938 and 1954 the unit value index of world exports\(^2\) rose by about 135%; between the same years the price of gold in terms of U.S. dollars remained unchanged. Over three-quarters of the

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reserves of the Sterling Area are held in the form of gold. If the price of gold had risen in line with the price of most commodities, the foreign exchange reserves of the Sterling Area, measured in terms of dollars, would have increased in almost any post-war year by the equivalent of over 2000 million dollars. Cumulatively, the effect would have been very much bigger because the Sterling Area is a large producer of gold.

But the low level of international reserves raises deeper questions than that of the unchanged price of gold. The U.S. government has decided not to allow the price of gold to rise. It is the duty of governments affected by this decision to make appropriate adjustments in their economic policies to meet the changed situation. If reserves are inadequate for the needs of a number of countries, the situation can be improved by redistributing existing gold reserves in a more satisfactory manner. But only temporarily; for "a world wide distribution of monetary reserves in accordance with apparent need for them is incompatible with the yet more fundamental consideration of the distribution of the real resources of each country in accordance with the highest priority for their use."

Foreign exchange reserves are the counterpart of real resources; the state of reserves reflects the strength of a country's economy. The low level of monetary reserves of the Sterling Area has been brought about by the continued inability of the U.K. and other members to earn a current account surplus. The relevant changes in the balance of payments of the U.K. during the post-war period compared with 1938 are described in the remaining sections of this chapter.

1 The Adequacy of Monetary Reserves, op.cit., p.217.
and this will serve as a background for the discussion of some of the underlying factors behind the persistent weakness of sterling.
SECTION B. OVERALL BALANCE OF PAYMENTS OF THE U.K.,

Selection of a Base Year.

Comparisons between the balance of payments at two different periods raise general problems associated with the selection of a base year. The implication is that conditions in a base year are "normal." But there is no precise criterion or measure of normality. It is not sufficient that the balance of payments should be in approximate equilibrium. The external position cannot be considered in isolation. The domestic picture is also relevant. In particular, a high level of employment is part and parcel of any definition of normality. At best normality can only be defined in very general terms. Economic conditions in a base year must not reflect the influence of exceptional events, like a world-wide depression or a major war.

In practice it is not easy to satisfy even these criteria of normality. 1913 is probably the most recent year economists will accept as "normal." (One even wonders whether 1913 was "normal" in the light of any but 19th century standards.) The 'twenties were burdened with grandiose plans for a return to the world of the gold standard, and later, with an overvalued pound. The impact of events in the early 'thirties, which bore the mark of the Great Depression, makes even the years immediately preceding the outbreak of the Second World War a far from ideal background against which to study the balance of payments developments of the post-war period.

The choice of a base year is also restricted by the lack of statistical data. In fact, there is hardly any choice; for 1938 is the only prewar year for which balance of payments estimates are available in a form comparable with those presented in the White Papers on the Balance of Payments. Even for 1938 information is
scanty; for instance, no British figures are available for the regional balance of payments of the U.K.

1938 was rather a depressed year. Nearly two million were unemployed, and both imports and exports were less than in 1937. The selection of 1938 as a base year is, therefore, made on the irrelevant consideration of the availability of statistical information. In these circumstances, it is all the more necessary to point out that the discussion which follows is not intended to imply that the state of the balance of payments of the U.K. in that year, viewed either alone or in reference to the domestic situation, is regarded as being more or less satisfactory than the balance of payments at any time during the post-war period. This, and similar questions involving value judgments are left to the welfare economist.

A General Picture.

Table 3 summarises the overall balance of payments of the U.K. on current account in 1938 and the period 1946 to 1955.

Since 1947 the U.K. has had a balance of payments surplus in every year except 1951 and 1955. The size of the surplus varied considerably over the period; it was substantial only in 1950. The balance of payments deficits of 1946, 1947 and 1951 were large by pre-war standards, even allowing for the rise in prices which had increased all magnitudes in the balance of payments. The gross national product and the volume of external transactions also expanded considerably between 1938 and the post-war years. Even after allowing for this factor, however, the deficits of 1946 and 1947 remain large. They represented 31% and 39% of the value of exports of the U.K. and 3.5% and 5% of gross national product. The corresponding figures for 1938 were 13% and 1%. The deficit of
1951, representing 15% of the value of exports of the U.K. in that year, was in this respect comparable to that of 1938; it was, however, equal to about 3% of gross national product. The deficit of 1955 was clearly of a marginal nature, being less than 1% of gross national product and equal to about 4% of the value of U.K. exports in the same year.

Table 3. Balance of Payments of the United Kingdom on Current Account. (£m)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Debits:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>835</td>
<td>1082</td>
<td>1560</td>
<td>1794</td>
<td>1978</td>
<td>2383</td>
<td>3481</td>
<td>2950</td>
<td>2879</td>
<td>3009</td>
<td>3413</td>
</tr>
<tr>
<td>Invisibles</td>
<td>173</td>
<td>754</td>
<td>652</td>
<td>553</td>
<td>567</td>
<td>542</td>
<td>770</td>
<td>825</td>
<td>778</td>
<td>829</td>
<td>974</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1008</td>
<td>1836</td>
<td>2212</td>
<td>2347</td>
<td>2545</td>
<td>2925</td>
<td>4251</td>
<td>3775</td>
<td>3657</td>
<td>3838</td>
<td>4387</td>
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<tr>
<td><strong>Credits:</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>533</td>
<td>917</td>
<td>1145</td>
<td>1602</td>
<td>1841</td>
<td>2250</td>
<td>2748</td>
<td>2625</td>
<td>2668</td>
<td>2817</td>
<td>3061</td>
</tr>
<tr>
<td>Invisibles</td>
<td>405</td>
<td>621</td>
<td>624</td>
<td>746</td>
<td>735</td>
<td>975</td>
<td>1099</td>
<td>1071</td>
<td>1098</td>
<td>1176</td>
<td>1179</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>938</td>
<td>1538</td>
<td>1769</td>
<td>2348</td>
<td>2576</td>
<td>3225</td>
<td>3847</td>
<td>3896</td>
<td>3766</td>
<td>3993</td>
<td>4240</td>
</tr>
</tbody>
</table>

Balance of Current Transactions -70 -298 -443 1 31 300 -404 121 109 155 -147

Balance of Visible Trade -165 -415 -192 -137 -133 -733 -125 -211 -192 -352

Balance of Invisibles -133 -28 193 168 433 329 246 320 347 205

Defence Aid -- -- -- -- -- -- 4 121 102 50 44

a—Balance excludes defence aid.
b—Includes government transactions.
c—Figures for 1955 are provisional.

Although price movements were not unimportant, balance of payments surpluses and deficits in the post-war period were largely the result of fluctuations in the volume of visible and invisible transactions. Evidence presented in Table 4, at constant prices, indicates the magnitude of fluctuations in imports and exports of goods and services. These fluctuations were not confined to the debit side of the accounts. They were almost equally pronounced on the side of visible and invisible exports.

**Table 4.**

Fluctuations in U.K. Imports and Exports of Goods and Services at Constant Prices. (In million, revalued at 1948 factor cost.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports of Goods and Services</th>
<th>Imports of Goods and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual Increase Over Preceding Year</td>
<td>Difference between Average and Actual Increase (^a)</td>
</tr>
<tr>
<td>1947</td>
<td>90</td>
<td>-67</td>
</tr>
<tr>
<td>1948</td>
<td>407</td>
<td>250</td>
</tr>
<tr>
<td>1949</td>
<td>234</td>
<td>87</td>
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<tr>
<td>1950</td>
<td>303</td>
<td>146</td>
</tr>
<tr>
<td>1951</td>
<td>130</td>
<td>-27</td>
</tr>
<tr>
<td>1952</td>
<td>-56</td>
<td>-213</td>
</tr>
<tr>
<td>1953</td>
<td>-39</td>
<td>-196</td>
</tr>
<tr>
<td>1954</td>
<td>184</td>
<td>27</td>
</tr>
</tbody>
</table>

Ave. 1947-1954 157 -- 83 --

\(^a\)--A minus sign indicates that increase in imports or exports of goods and services for the year was less than the average for the period 1947 to 1954.

*Source:* National Income and Expenditure, 1955, Table 12.
In the years in which the balance of payments improved, there was usually a combination of above average expansion in the volume of exports of goods and services, and a below average expansion (or actual decline) in the volume of imports of goods and services. 1948 and 1952 were completely of this pattern. In 1952, however, the dominant factor was the larger decline in imports in comparison with that in exports.

The reverse held true in the years in which the balance of payments deteriorated. In 1947, 1951 and 1953 imports of goods and services expanded at a considerably faster rate than for the period as a whole. Exports, on the other hand, expanded less than average in 1947 and 1951, and declined in 1953.

Invisible Earnings and Payments.

Changes in the balance of invisible trade, and especially in earnings and payments on investment income and shipping accounts, have often been held responsible for the post-war balance of payments problems of the U.K. Table 3, on page 27, seems to substantiate this view; it gives a general impression of a large deterioration in the balance of services. There was an actual deficit in two post-war years, namely, 1946 and 1947. Thereafter the picture improved. There has been a surplus in invisible transactions in every post-war year since 1947. But the surplus did not exceed its pre-war size until 1950, when it reached its highest post-war figure of £443 million. In the period 1951 to 1955 it ranged between £200 and £350 million.

The deterioration in the balance of invisible trade was not so much due to failure of the earnings to rise substantially as to greatly increased payments. Earnings rose from £405m. in 1938 to £1176 in
1954. But payments rose very much faster from £173m in 1938 to £829m in 1954. The trend evident in both payments and receipts was one of a steady increase.¹ The abrupt increase in payments abroad between 1938 and the post-war years was the exceptional factor in the overall picture.

The meaningfulness of the preceding figures is increased by four considerations. The first refers to changes in individual items in the balance of invisibles. They are outlined in Table 5. Shipping receipts and payments increased, but receipts did so faster. As a result the surplus on shipping account increased from £20m in 1938 to £150m in 1954.

Table 5.
Main Non-Government Items in Invisible Trade of The United Kingdom.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Debits:</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Shipping</td>
<td>80</td>
<td>141</td>
<td>170</td>
<td>178</td>
<td>191</td>
<td>180</td>
<td>280</td>
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<td>245</td>
<td>257</td>
<td>337</td>
</tr>
<tr>
<td>Interest, Profits, Dividends</td>
<td>30</td>
<td>100</td>
<td>93</td>
<td>103</td>
<td>106</td>
<td>117</td>
<td>180</td>
<td>213</td>
<td>227</td>
<td>233</td>
<td>258</td>
</tr>
<tr>
<td>Travel</td>
<td>40</td>
<td>42</td>
<td>76</td>
<td>66</td>
<td>75</td>
<td>85</td>
<td>82</td>
<td>88</td>
<td>101</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>283</td>
<td>339</td>
<td>347</td>
<td>372</td>
<td>382</td>
<td>564</td>
<td>593</td>
<td>560</td>
<td>591</td>
<td>718</td>
</tr>
<tr>
<td>Credits:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shipping</td>
<td>100</td>
<td>169</td>
<td>205</td>
<td>255</td>
<td>282</td>
<td>321</td>
<td>412</td>
<td>401</td>
<td>365</td>
<td>407</td>
<td>457</td>
</tr>
<tr>
<td>Interest, Profits, Dividends</td>
<td>205</td>
<td>162</td>
<td>186</td>
<td>192</td>
<td>200</td>
<td>271</td>
<td>307</td>
<td>291</td>
<td>274</td>
<td>306</td>
<td>317</td>
</tr>
<tr>
<td>Travel</td>
<td>28</td>
<td>13</td>
<td>21</td>
<td>33</td>
<td>42</td>
<td>61</td>
<td>75</td>
<td>80</td>
<td>88</td>
<td>95</td>
<td>111</td>
</tr>
<tr>
<td>Other (Net)¹ b</td>
<td>72</td>
<td>113</td>
<td>83</td>
<td>170</td>
<td>176</td>
<td>293</td>
<td>267</td>
<td>254</td>
<td>311</td>
<td>314</td>
<td>234</td>
</tr>
<tr>
<td>Total</td>
<td>407</td>
<td>457</td>
<td>495</td>
<td>650</td>
<td>700</td>
<td>946</td>
<td>1061</td>
<td>1026</td>
<td>1038</td>
<td>1122</td>
<td>1119</td>
</tr>
<tr>
<td>Balance</td>
<td>255</td>
<td>174</td>
<td>156</td>
<td>303</td>
<td>328</td>
<td>564</td>
<td>497</td>
<td>433</td>
<td>478</td>
<td>531</td>
<td>481</td>
</tr>
</tbody>
</table>

¹ Payments in 1947 declined from the very high level of 1946.

a—Total given here differs from that in Table 3 in that it excludes government payments and receipts, migrants funds, legacies and private gifts (net).  b—The "other" category includes all other current transactions except defence aid. (Continued Overleaf).
b—(Continued) It includes the overseas transactions of oil companies, films, civil aviation, insurance commission, banking and other services. In this category, figures for 1938 are not strictly comparable with those of later years.

Source: Same as Table 3.

Interest, profits and dividends paid abroad, however, increased considerably in post-war years; since 1952 they have regularly exceeded the two-hundred million mark by a widening margin. They were only £30 million in 1938. On the other hand, receipts on the same account did not pass the 1938 level until 1950. The increase over 1938 was very small; namely about 50% in 1955, the best post-war year. As a result the pre-war surplus was never exceeded.

The contribution of net payments on travel account to the overall deficit was always small. Changes since 1938 have tended to reduce a little the margin by which payments exceeded receipts. In 1953, receipts very nearly equalled payments for the first time. The greatest improvement in the services balance took place in the "other" category. Receipts in 1954 were 4½ times larger than in 1938. But changes in the composition of this item makes comparisons less reliable than usual.

From the British point of view the picture presented in Table 5 is brighter than that of Table 3. Government transactions are excluded from Table 5. In the post-war period, the services balance was distorted by government transactions which, by 1938 standards, were of an exceptional nature. In the British balance of payments statistics, current transfers of a unilateral nature, grants and gifts are split between the current account and the investment and financing account. As a general rule, grants like those of the Economic Cooperation Administration, which are directly or indirectly connected with payments difficulties, are included in the investment account.

1 For main items included in this category see note b in Table 5.
and financing account. The current account includes transfers and grants which are the result of "inescapable commitments" on the part of the U.K. government.¹

Within the current account, invisible government transactions are shown in considerable detail for post-war years.² Although 1938 is statistically far less well served, it is evident that government expenditure abroad showed an exceptional increase between that year and the post-war period. In 1938 net government payments overseas amounted to £16m. In 1946 they totalled £323m; in other post-war years the government deficit on invisible account ranged between £76m, in 1948 and £181m. in 1955. For the period 1946-55 the deficit averaged £166m. per annum. This tenfold increase since 1938 was to a large extent the result of substantial military expenditure abroad by the British government.

The second consideration which enhances the significance of changes in the services balance is concerned with the impact of visible trade on invisible transactions. The rate of increase of income received for rendering certain services depends directly on the rate of expansion of world, and more specifically, of British trade. For some other services it depends less on such an expansion. Most of the post-war increase in the invisible earnings of the U.K. took place in those items which are directly connected with trade expansion, such as earnings from shipping and most services included in the "other" category. Earnings on items not directly dependent on world trade, like income on foreign investments, declined or disappeared altogether. The U.K. has lost her only "independent" source of earnings of foreign exchange, and her

¹ Cmd 8065, pp.5-6.
² For a list of items included see White Papers on the Balance of Payments, e.g. Cmd 9731, pp.53-54.
external solvency depends more closely than ever before, on the expansion of her merchandise trade.

In the third place, all figures of invisible transactions given in preceding pages were in terms of current prices. Between 1938 and the post-war period the index of world prices rose very substantially. It is doubtful whether the 1938 surplus on invisible account of £232m. was bettered, in real terms, in any post-war year.

Lastly, changes between 1938 and the post-war period were not confined to prices; changes in volume were almost equally prominent. Table 6 attempts to put invisible earnings and payments in a proper perspective in relation to price and volume changes in the balance of payments.

Taken as a whole, income on invisible account during the period 1946-55 made a smaller contribution to the credit side of the balance of payments than it did before the war. Whereas in 1938 the services balance represented 28% of imports and 44% of exports, in 1954 it only represented 11% of imports and 12% of exports. In no post-war year did it cover more than 20% of either imports or exports. The overall trend during the period, however, was one of a small improvement.

The performance of individual items in the balance of services varied considerably. Net receipts on shipping and travel accounts fared best. Expressed as a percentage of exports, shipping earnings increased by 0.2 percentage points between 1938 and 1955. In some other years, notably 1950 and 1954 the increase was considerably larger. In 1938 payments on travel account constituted the equivalent of 2.2% of exports; a gradual improvement throughout the post-war period culminated, in 1953, in the complete elimination of
this deficit. Receipts in the "other" category very nearly kept pace with the increase in exports. All these changes are dwarfed by the rapidly diminishing importance of net receipts on overseas investment account. In 1938 income on this account was equal to almost a third of proceeds from exports; in 1955 the figure was less than 2%. The deterioration was continuous throughout the post-war period.

Table 6.
The Importance of Invisible Transactions in the Balance of Payments of the United Kingdom.

A. Balance of Invisible, Including Government, Transactions as Percentages of Imports, Exports and Visible Trade Balance. (%)

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>28</td>
<td>-12</td>
<td>-2</td>
<td>11</td>
<td>8</td>
<td>18</td>
<td>9</td>
<td>8</td>
<td>11</td>
<td>11</td>
<td>6</td>
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<tr>
<td>Exports</td>
<td>44</td>
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<td>12</td>
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<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Balance of Trade</td>
<td>78</td>
<td>-87</td>
<td>-7</td>
<td>100</td>
<td>123</td>
<td>325</td>
<td>45</td>
<td>197</td>
<td>152</td>
<td>180</td>
<td>58</td>
</tr>
</tbody>
</table>

B. Balance of Chief Invisible Items as Percentages of Exports. (%)

<table>
<thead>
<tr>
<th></th>
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<td>4.8</td>
<td>3.6</td>
<td>4.5</td>
<td>5.3</td>
<td>3.9</td>
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<tr>
<td>Interest, Profits, dividends</td>
<td>32.8</td>
<td>6.7</td>
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<td>5.5</td>
<td>5.1</td>
<td>6.8</td>
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<td>1.8</td>
<td>2.6</td>
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<td>Travel</td>
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<td>-3.9</td>
<td>-2.0</td>
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<td>-1.1</td>
<td>-1.1</td>
<td>-0.1</td>
<td>0.0</td>
<td>-0.2</td>
<td>-0.4</td>
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<tr>
<td>&quot;Other&quot;</td>
<td>12.2</td>
<td>12.3</td>
<td>7.2</td>
<td>10.1</td>
<td>9.6</td>
<td>13.0</td>
<td>9.7</td>
<td>9.0</td>
<td>11.6</td>
<td>11.1</td>
<td>7.6</td>
</tr>
</tbody>
</table>

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a—Minus figures indicate a negative service balance.

Sources: Tables 3 and 5.
There is nothing inevitable about the 1938 percentages. At best, any expectations that income on services would have continued to bear the same relationship to imports and exports as it did in 1938 could only have been based on evidence of a historical nature. This change, however, demonstrates that, at a factual level of analysis, the deterioration in the balance of services was partly responsible for the post-war balance of payments difficulties of the U.K. It is difficult to give a quantitative estimate of the importance of this factor. But, in order to make good the loss of income on invisible account between 1938 and 1952-3, the volume of exports must be 39% larger than in 1938.  

The Trade Balance.

In 1938 the trade gap was £302m. In post-war years its size varied considerably. It was larger than it had been in pre-war days in 1947, 1951, and, by a smaller margin, in 1955. In all other post-war years the trade gap was substantially narrower than in 1938. In 1952 it was only £125m. But changes in the amount by which imports exceeded exports were rapid. In fact, the trade gap was highest and lowest in two successive years.

In 1954 the value of imports was about four times higher than in 1938. In the same year exports were at near record level, and over five times higher than in 1938. Apart from a temporary setback in 1952-3 imports and exports increased in value throughout.

1 This method of calculation is based on Harrod's article cited above. The figure given here was calculated in the following manner. Invisible income accruing in 1952-3 (average) was reduced to allow for the rise in import prices. This income was subtracted from invisible earnings in 1938 and the difference was expressed as a percentage of exports. Lastly, an allowance was made for the changed terms of trade. This method takes no account of changes in the volume of imports between 1938 and 1952-3.
the period. Since 1951, however, the rate of increase in the value of exports has slowed down.

These changes conceal diverse movements in the price and volume of U.K. imports and exports. Movements in the unit value and volume indexes of imports and exports are set out in Table 7. The unit value

Table 7.

Index Numbers of Unit Value and Volume of Imports and Exports of U.K.\(^a\)

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>28</td>
<td>32</td>
<td>30</td>
<td>77</td>
<td>86</td>
<td>87</td>
<td>133</td>
<td>129</td>
<td>114</td>
<td>114</td>
<td>117</td>
</tr>
<tr>
<td>Exports</td>
<td>35</td>
<td>37</td>
<td>38</td>
<td>84</td>
<td>92</td>
<td>94</td>
<td>117</td>
<td>123</td>
<td>120</td>
<td>117</td>
<td>119</td>
</tr>
<tr>
<td>Terms of Trade</td>
<td>80</td>
<td>86</td>
<td>79</td>
<td>92</td>
<td>93</td>
<td>92</td>
<td>113</td>
<td>105</td>
<td>96</td>
<td>97</td>
<td>98</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports(^b)</td>
</tr>
<tr>
<td>Exports</td>
</tr>
</tbody>
</table>

a--Volume indexes are computed with base year weights. Value indexes use 1947 quantities at 1938 prices. All indexes have been switched from original base year to base 1950.

b--General imports.


index gives only a rough indication of price changes between 1936-38 and the post-war period because it is affected by changes in the composition of trade. But for broad comparisons the figures are quite adequate. The period 1938-55 was one of marked deterioration from the U.K.'s point of view. Between 1938 and 1954 the index of export prices rose substantially; but the index of import prices rose even more. Since 1951 considerable improvement has taken place: export prices remained relatively stable, whereas import prices declined rather sharply. The improvement was not sufficient to restore the
pre-war position. As a result, between 1938 and 1954 the British terms of trade worsened by 18 percentage points.

This, in its bare essentials, is the statistical basis of the argument which attributes the balance of payments difficulties of the U.K. to changes in the terms of trade. The British experience is a special case of the general deterioration in the position of manufacturing countries, vis-a-vis primary producing countries.\footnote{The experience of all other Western European countries was, however, by no means identical to that of the U.K. See C.P. Kindleberger, Industrial Europe’s Terms of Trade on Current Account, in Economic Journal, March 1955, especially p.27.}

It is difficult to estimate the quantitative significance of these changes in a meaningful manner. If prices of primary products always rise at a faster rate than prices of manufactures, the potential importance of this factor cannot be easily overestimated. On the other hand, in retrospect and at a factual level of analysis, the worsening in the U.K.'s terms of trade since 1938 was of less importance than the loss of invisible income. On conditions similar to those described in the footnote on page 35, to make good the diminished purchasing power of British exports between 1938 and 1952-3, the volume of exports must expand by 29% compared with 1938.

Volume changes in imports and exports between 1938 and the post-war period tended to improve the balance of payments. Between 1938 and 1952-3 the volume of exports expanded by about 68% and that of imports declined by about 8%. This expansion in exports was itself just sufficient to compensate Britain for the combined effect of the loss of invisible income and the deterioration in the terms of trade.
But the outstanding development in the U.K.'s merchandise trade during the post-war period was the reduced volume of imports compared with the period 1936-8. The 1938 level was not exceeded until 1955; in most other post-war years the volume of imports was substantially lower than in 1938.¹

¹ Changes in unit value and volume of exports and imports are not independent of each other. But this chapter is set out at a descriptive level of analysis. Discussion of the controversial question of price elasticities will be out of place. For, not only is the application of calculated elasticities to the formulation of future economic policy open to question; but their validity as explanations of the probable course of events in some past period is also seldom accepted without qualification. Objections to calculated elasticities are weighed up in Appendix A. In the same appendix the results of research by a number of economists in this field are briefly reviewed. These results are occasionally used in the main body of this thesis; but where they are closely related to the argument, they are reproduced in some detail at appropriate places in the text.
SECTION C. REGIONAL ASPECTS: THE DOLLAR SHORTAGE.

The Nature of the Dollar Shortage.

The overall figures reveal only imperfectly the strains to which the British balance of payments was exposed during the post-war period. From the point of view of the U.K., balance of payments transactions fell into two groups: first, those with countries which were prepared to accept payment in sterling, and second, those with countries which were not prepared to do so. As a general rule, most countries were always ready to accept payment in their own currency. Again, from the British point of view, countries in the second group formed two distinct subgroups. First, there were those countries with which the U.K. was in balance of payments equilibrium or enjoyed a surplus; they could be paid back in their own currency. The second group consisted of those countries with which the U.K. was in deficit; the means of settling her debt with these countries had to be earned in trade with those countries to which the U.K. was normally a creditor.

In principle a system of multilateral payments could eliminate all but overall surpluses and deficits. However, it was not sufficient that Britain should be in overall external equilibrium; it was necessary that every important trading country, taken separately, should be in equilibrium with the rest of the world as a whole. This condition did not hold. One very important country, the United States, was a persistent balance of payments creditor almost completely throughout the post-war period. Her currency was not only hard vis-a-vis that of the U.K.; for long periods it was also hard vis-a-vis the currencies of most other countries.
In these circumstances, a surplus with a soft currency area could not be used by the U.K. to offset a deficit with the U.S. The dollar acquired scarcity value. Command of foreign exchange in the form of dollars meant a wider choice of goods than command over any other currency. The U.S. herself was an important source of imports for goods which were not normally obtainable elsewhere or were obtainable only at increased cost. Moreover, it was desirable to hold foreign exchange reserves in currencies which were acceptable in the widest possible circle, i.e. in dollars or in gold.

This, in the broadest possible terms, is the explanation of how the state of gold and dollar reserves came to dominate the balance of payments problem of the U.K. As sterling and other currencies became more freely convertible into dollars, it was easier for the U.K. to earn or lose dollars in transactions with non-dollar, non-sterling countries. The emphasis, correspondingly, began to shift from the direct dollar-sterling relationship to the balance of payments of the U.K. and the Sterling Area with the entire non-sterling world.

The global dollar problem was, therefore, the outcome of a persistent tendency on the part of the rest of the world outside the United States to spend more in that country than they currently earned there. From a national point of view, it was also due to some extent to a similar tendency on the part of the U.K. and the Sterling Area; but it was also due to the U.K.'s inability to earn dollars in trade with non-dollar countries. This inability resulted from a combination of two factors: first, the failure of the U.K. to earn an overall balance of payments surplus consistently; and second, the global dollar shortage which prevented non-dollar countries from settling their debts with Britain in dollars. In the former case,
the British dollar problem was just one aspect of an overall external deficit; in the latter case, it was of wider significance in that an overall British balance of payments surplus did not always succeed in eliminating it.

Table 8.
Special Receipts by the United Kingdom from the United States and Canada.
(£m. and %.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Grants</th>
<th>Loans</th>
<th>Offshore Sales to U.S.</th>
<th>Total</th>
<th>Grants as % of imports from Dollar Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946</td>
<td>--</td>
<td>279</td>
<td>--</td>
<td>279</td>
<td>--</td>
</tr>
<tr>
<td>1947</td>
<td>--</td>
<td>812</td>
<td>--</td>
<td>812</td>
<td>--</td>
</tr>
<tr>
<td>1948</td>
<td>145</td>
<td>107</td>
<td>--</td>
<td>252</td>
<td>36</td>
</tr>
<tr>
<td>1949</td>
<td>244</td>
<td>90</td>
<td>--</td>
<td>334</td>
<td>55</td>
</tr>
<tr>
<td>1950</td>
<td>239</td>
<td>20</td>
<td>--</td>
<td>259</td>
<td>55</td>
</tr>
<tr>
<td>1951</td>
<td>72</td>
<td>5</td>
<td>--</td>
<td>77</td>
<td>10</td>
</tr>
<tr>
<td>1952</td>
<td>137</td>
<td>17</td>
<td>1</td>
<td>255</td>
<td>23</td>
</tr>
<tr>
<td>1953</td>
<td>105</td>
<td>--</td>
<td>18</td>
<td>123</td>
<td>20</td>
</tr>
<tr>
<td>1954</td>
<td>50</td>
<td>--</td>
<td>37</td>
<td>87</td>
<td>9</td>
</tr>
<tr>
<td>1955</td>
<td>44</td>
<td>--</td>
<td>43</td>
<td>87</td>
<td>6</td>
</tr>
</tbody>
</table>

a—Excluding United States' share of counterpart.

Sources: Cmd 8976 and Cmd 9731.

The realised dollar deficit of the U.K. was influenced by two factors which tended to work in opposite directions. Although there is no way of estimating what the dollar deficit would have been in
the absence of these factors, they deserve a brief mention; for they clarify the concept of a latent, as distinct from a realised, dollar deficit.

Firstly, the size of the realised dollar deficit was affected by large receipts of an extraordinary kind from the U.S. and Canada. These receipts stimulated demand in the U.K. for dollar goods which might not have existed at all, or which might have been met with goods from other sources. Table 8 gives details of three kinds of special receipts from North America. It is not easy to say what constitutes a "special receipt" as distinct from a receipt of a commercial character. But even when grants alone are considered as extraordinary receipts, the amount received from the U.S. was considerable especially in 1949 and 1950. Their relative importance is indicated by the fact that in those years they represented about 55% of imports from the dollar area. By 1955, however, American aid became a factor of marginal significance; it constituted the equivalent of no more than 6% of the U.K.'s dollar imports.

Secondly, discriminatory treatment of dollar goods acted in the opposite direction. It tended to reduce the size of the realised dollar deficit. In the immediate post-war years, unrealised demand for dollar imports was probably very substantial. It is

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1 There is no question, however, of measuring here the British dollar problem by any standard other than that of the excess of actual dollar payments over dollar receipts. The concept of a latent disequilibrium, based on the presence of direct trade and exchange controls, is too vague to permit of statistical treatment. It is also open to a number of other objections. See, for instance, H. Johnson, The Taxonomic Approach to Economic Policy, in Economic Journal, 1951, Vol. 61, pp. 814-5. This, of course, does not prevent any one from concluding, in a general way, that relaxation of direct controls on dollar trade reflects, as a rule, a narrowing down of the combined latent and realised dollar deficits.
only recently, however, that dollar liberalisation measures in the U.K. and other Western European countries afforded a practical test of the probable increase in imports in the event of a relaxation of discriminatory controls. The experience of many countries which liberalised part of their dollar imports in the period 1953-56 varied considerably.\(^1\) The U.K. dollar liberalisation measures were modest and concentrated in the categories of food and feeding stuffs and of raw materials. On January 1st 1956 only 5% of the U.K.'s imports of manufactured goods were free from control. In the period July 1954 to June 1955 imports from the U.S. and Canada were 403 million dollars higher than in the period July 1953 to June 1954. Over half of this increase occurred in imports which had been liberalised. It was considered, however, that this increase in imports was only in part due to the liberalisation measures.\(^2\)

The U.K.'s Balance of Payments with the Dollar Area.

Before the war, when major currencies were generally convertible, the concept of a balance of payments between individual pairs of countries or currency areas had very limited economic significance. Discussion of the dollar problem in comparative terms is hampered by the lack of statistical material for the pre-war years. The figures for 1938 presented in this chapter are in the nature of rough estimates. Insofar as they are derived from different sources, figures for post-war years are not strictly comparable with those of 1938. In general, 1938 figures are derived from trade statistics while


\(^2\) ibid. p.30.
figures for post-war years are based on balance of payments estimates. Those of 1938 refer to the U.S. and Canada and not to the dollar area.

Table 9.
Gold and Dollar Accounts of the Sterling Area.

(£ million)

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>United Kingdom:</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Merchandise (net)</td>
<td>-290</td>
<td>-437</td>
<td>-210</td>
<td>-247</td>
<td>-107</td>
<td>-349</td>
<td>-196</td>
<td>-77</td>
<td>-146</td>
<td>-251</td>
</tr>
<tr>
<td>Services (net)</td>
<td>-11</td>
<td>-73</td>
<td>-42</td>
<td>-49</td>
<td>27</td>
<td>-91</td>
<td>-98</td>
<td>-39</td>
<td>9</td>
<td>--</td>
</tr>
<tr>
<td>Defence Aid</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>4</td>
<td>121</td>
<td>102</td>
<td>50</td>
<td>44</td>
</tr>
<tr>
<td>Current Account Balance</td>
<td>-301</td>
<td>-510</td>
<td>-252</td>
<td>-296</td>
<td>-80</td>
<td>-426</td>
<td>-173</td>
<td>-14</td>
<td>-87</td>
<td>-207</td>
</tr>
<tr>
<td>Capital Transactions</td>
<td>300</td>
<td>829</td>
<td>285</td>
<td>356</td>
<td>391</td>
<td>-40</td>
<td>36</td>
<td>31</td>
<td>73</td>
<td>19</td>
</tr>
<tr>
<td><strong>Rest of Sterling Area:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactions with Dollar Area</td>
<td>-73</td>
<td>-306</td>
<td>-65</td>
<td>-54</td>
<td>169</td>
<td>103</td>
<td>38</td>
<td>87</td>
<td>26</td>
<td>12</td>
</tr>
<tr>
<td>Gold Sales in U.K.</td>
<td>82</td>
<td>84</td>
<td>55</td>
<td>68</td>
<td>100</td>
<td>78</td>
<td>71</td>
<td>78</td>
<td>138</td>
<td>176</td>
</tr>
<tr>
<td>Total Balance</td>
<td>$</td>
<td>-222</td>
<td>-10</td>
<td>14</td>
<td>269</td>
<td>181</td>
<td>109</td>
<td>165</td>
<td>164</td>
<td>188</td>
</tr>
<tr>
<td><strong>Transactions with Non-Dollar Areas:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Areas (net)</td>
<td>46</td>
<td>-249</td>
<td>-78</td>
<td>-77</td>
<td>-5</td>
<td>-59</td>
<td>-147</td>
<td>58</td>
<td>-63</td>
<td>-229</td>
</tr>
<tr>
<td>Changes in Gold and Dollar Reserves</td>
<td>54</td>
<td>-152</td>
<td>-55</td>
<td>-3</td>
<td>575</td>
<td>-344</td>
<td>-175</td>
<td>240</td>
<td>87</td>
<td>-229</td>
</tr>
</tbody>
</table>

Sources: Cmd 8976, tables 19 and 21; Cmd 9731, table 11.

For post-war years, however, there is a wealth of statistical evidence on the gold and dollar accounts. It is set out in table 9. Changes in the central pool of gold and dollar reserves reflect the effect of all Sterling Area receipts and payments in gold and dollars.
Broadly speaking, in Table 9 four types of transactions are distinguished. First, there are those in the direct current account balance of the U.K. with the dollar area. They include defence aid. The second group of transactions consists of items of a capital nature which appear in the Investment and Financing Account of the U.K. official balance of payments estimates. Transactions in the third section of the table outline the contribution of the Rest of the Sterling Area to the dollar pool. This section includes, besides the balance of payments of the R.S.A. with the dollar area, the sale of gold for sterling in the U.K. The last section refers to dollar transactions between Sterling Area countries on the one hand and non-dollar countries on the other. The net figure consists of "other net transfers of gold and dollars, resulting from transactions with non-dollar, non-Sterling Area countries (including settlements with the IMF in the period in question) and non-territorial organisations." Payments and receipts of gold and dollars on this account are attributable to the U.K. and the Rest of the Sterling Area taken together. Only part of a debit or credit balance is settled in gold or dollars; it is, therefore, not possible to assess accurately the separate contributions, on this account, of the U.K. and the RSA to the gold and dollar reserves.

Capital transactions and RSA transactions are not examined in any detail. In the sphere of capital transactions, no comparison is possible with the 1938 position in any case because of the complete lack of statistical data for the pre-war years. But the general significance of both types of transactions in the post-war

1 See, for example, Cmd 9731, p.47.
2 The effect of the Sterling Area mechanism on the dollar position of the Overseas Sterling Area is, however, examined in chapter 9.
balance of payments problem of the U.K., partially evident from Table 9, should be made clearer by several additional comments.

In the period 1946 to 1950 transactions of a capital nature were very large. In 1946 and 1947 they consisted, in the main, of receipts under the U.S. and Canadian loans. In the period 1948 to 1950 the chief items were grants to the U.K. under the European Recovery Programme. If the U.K. had not had access to these extraordinary receipts, the strain on the gold and dollar reserves would have been very much greater and the U.K. would have been forced to restrict severely her imports of dollar goods. In the years 1951 to 1955 the gain to the U.K. on capital account was very much smaller than in the earlier period. Net government borrowing was on a small scale. At the same time the U.K. had to repay the Canadian interest-free loan, annual instalments of the U.S. and Canadian Lines of Credit, and the Lend-Lease Settlement Loan. In the period 1952 to 1955 the net figure for repayments of government loans was about 35 million pounds per annum.

Sterling Liabilities fluctuated directly with foreign confidence in sterling. Sterling balances were drawn upon heavily in 1947, 1951 and 1955; they were built up significantly only in 1950. Other capital transactions are not separately distinguished, but one of the dominant factors in later post-war years was probably the gain accruing to the gold and dollar reserves as a result of American long-term investment in the U.K.

The balance of payments position of the Rest of the Sterling Area in relation to the United States and Canada changed considerably between 1938 and the earlier post-war years. Before the war, though not in 1938, the R.S.A. earned a small surplus in trade
with North America; in the years 1934 to 1938 it averaged about 60 million dollars per annum. This surplus was greatly augmented by the R.S.A.'s production of gold which amounted to about 500 m. dollars per year. Net payments on the service balance were negligible. Table 9 shows that the dollar position of the R.S.A. deteriorated sharply in the early post-war period. The figures in Table 9 are not entirely comparable with those for pre-war years; but they indicate in broad outline that the R.S.A. was in approximate payments equilibrium with the dollar area in 1946, 1948 and 1949, and in deficit in 1947. This deterioration was partly due to the failure of the price of gold to rise in line with the price of other commodities. But it was also due to a rather large trade deficit.

The size of the deficit in post-war years, in a comparable form to that of the pre-war period, is shown in Table 10. The

Table 10.

Rest of the Sterling Area's Trade with the United States and Canada.

(F.o.b.; million dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports</th>
<th>Exports</th>
<th>Trade Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1934-8 (ave)</td>
<td>329</td>
<td>387</td>
<td>58</td>
</tr>
<tr>
<td>1948</td>
<td>1705</td>
<td>1130</td>
<td>-575</td>
</tr>
<tr>
<td>1950</td>
<td>946</td>
<td>1437</td>
<td>491</td>
</tr>
<tr>
<td>1951</td>
<td>1538</td>
<td>1853</td>
<td>315</td>
</tr>
<tr>
<td>1952</td>
<td>1475</td>
<td>1299</td>
<td>-176</td>
</tr>
<tr>
<td>1953</td>
<td>1168</td>
<td>1196</td>
<td>28</td>
</tr>
<tr>
<td>1954</td>
<td>1152</td>
<td>1127</td>
<td>-25</td>
</tr>
</tbody>
</table>

Sources: Official Trade Returns of the United States and Canada, and Direction of International Trade.
period 1950 to 1952 was dominated by events associated with the
Korean boom. Very large surpluses in 1950 and 1951 were succeeded
in the following year by a fairly large deficit. In 1953 and 1954
the trade balance of the R.S.A. with North America returned to some¬
thing like its pre-war pattern: a small positive or negative trade
balance plus a substantial credit item representing mainly sales of
gold to the U.K. for sterling or to other countries for dollars.
Sales of gold to the U.K. remained steady at about £75 million pounds
per annum until 1953. In 1954 and 1955, however, they were very
nearly double that amount.

Current Dollar Transactions of the U.K.

The strain on the gold and dollar reserves was intensified
during the post-war period by a deterioration in the U.K.'s balance
of invisible trade with the Dollar Area, compared with 1938. Informa¬
tion about the services balance is reproduced, in considerable
detail for the post-war period, in Table 11; the Table also includes
an estimate for 1938. Broadly speaking, between 1938 and the post¬
war period the status of the U.K. on invisible account was changed
from one of a fairly substantial creditor to one of a fairly substan¬
tial debtor. The deterioration was greatest in the shipping and
investment income items. It was estimated that, for the Sterling
Area as a whole, investment income declined by over 100 million
dollars between 1938 and 1948. The deterioration in the shipping
position between the same years was of the order of 150 million dollars.¹

¹ The Gold and Dollar Deficit of the Sterling Area, in Economic
Bulletin for Europe, October 1949.
Table 11.
United Kingdom Service Balance with the Dollar Area. (£m.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Shipping</td>
<td>56</td>
<td>63</td>
<td>46</td>
<td>44</td>
<td>47</td>
<td>75</td>
<td>74</td>
<td>55</td>
<td>54</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Interest, Profits, Dividends</td>
<td>18</td>
<td>24</td>
<td>27</td>
<td>33</td>
<td>40</td>
<td>84</td>
<td>78</td>
<td>81</td>
<td>97</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>7</td>
<td>11</td>
<td>7</td>
<td>4</td>
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<tr>
<td>Migrants' Funds, Legacies, Private Transfers (net)</td>
<td>-3</td>
<td>6</td>
<td>11</td>
<td>8</td>
<td>--</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td>8</td>
<td>14</td>
<td></td>
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<tr>
<td>Government</td>
<td>30</td>
<td>15</td>
<td>6</td>
<td>8</td>
<td>8</td>
<td>11</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>15</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td>108</td>
<td>119</td>
<td>97</td>
<td>97</td>
<td>99</td>
<td>184</td>
<td>173</td>
<td>152</td>
<td>173</td>
<td>212</td>
<td></td>
</tr>
</tbody>
</table>

**Credits**

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<tr>
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<tbody>
<tr>
<td>Shipping</td>
<td>44</td>
<td>49</td>
<td>46</td>
<td>48</td>
<td>59</td>
<td>83</td>
<td>83</td>
<td>79</td>
<td>86</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td>Interest, Profits, Dividends</td>
<td>31</td>
<td>33</td>
<td>34</td>
<td>39</td>
<td>53</td>
<td>58</td>
<td>57</td>
<td>57</td>
<td>57</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>2</td>
<td>7</td>
<td>11</td>
<td>18</td>
<td>21</td>
<td>23</td>
<td>27</td>
<td>31</td>
<td>34</td>
<td>39</td>
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</tr>
<tr>
<td>Government</td>
<td>31</td>
<td>11</td>
<td>9</td>
<td>4</td>
<td>8</td>
<td>18</td>
<td>32</td>
<td>29</td>
<td>31</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Other (net)</td>
<td>-11</td>
<td>-54</td>
<td>-45</td>
<td>-61</td>
<td>-15</td>
<td>-89</td>
<td>-124</td>
<td>-83</td>
<td>-26</td>
<td>-24</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>97</td>
<td>46</td>
<td>55</td>
<td>48</td>
<td>126</td>
<td>93</td>
<td>75</td>
<td>113</td>
<td>182</td>
<td>212</td>
<td></td>
</tr>
</tbody>
</table>

**Balance of Invisibles:**

|------------------|------|------|------|------|------|------|------|------|------|------|------|

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*a*—Prior to 1951 this item appeared on a net basis; its composition was also somewhat different from that of later years.

*b*—Refers to U.S. and Canada only.

**Sources:** For 1938 estimate by E.C.E.: Economic Bulletin for Europe, October, 1949. Cmd 8976 and Cmd 9731.

Between 1946 and 1954 investment income doubled, partly because the planned liquidation of United Kingdom investments in the United States during the war greatly reduced the proportion of fixed income assets to total assets. The improvement, however, was not reflected
in increased net receipts because payments on the same account increased at a faster rate, partly as a result of interest payments on the War Loans.

On shipping account, on the other hand, the trend in net earnings during the post-war period was more favourable. Both receipts and payments increased fairly steadily, but receipts did so slightly faster than payments. As a result, whereas in 1946 there was a small negative balance, by 1954 the U.K. had a surplus on shipping account of the order of £30m. This surplus, however, probably fell considerably short of its pre-war counterpart.

The significance of the loss of dollar income on invisible transactions is enhanced by the post-war deterioration in the U.K.'s merchandise trade accounts with the dollar area. Table 12 on page 51 compares, on a f.o.b. basis, the value of the United Kingdom's exports to and imports from the main components of the dollar area in 1938, 1948 and the period 1950 to 1954. In most post-war years the U.K. trade balance figures given in this table, come, when converted into dollars at the current rate of exchange, reasonably close to the official balance of payments estimates of the U.K. on which Table 9 is based.

1938 was a depression year in the United States. In the period 1934 to 1938 the trade deficit of the U.K. with the dollar area was, on the average, about 100 million dollars less than in 1938. Yet, when the trade deficit is expressed in pounds sterling, in every post-war year except 1950 and 1953 the value of imports exceeded that of exports by a larger margin than in 1938. The average size of the dollar deficit during the period 1950 to 1954 was £192m.; this
Table 12.

Merchandise Trade of the United Kingdom with the Dollar Area, 1938, 1948 and 1950-1954. (F.O.B.; million dollars.)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>United States</td>
<td>141</td>
<td>286</td>
<td>357</td>
<td>430</td>
<td>508</td>
<td>483</td>
<td>452</td>
</tr>
<tr>
<td>Canada</td>
<td>115</td>
<td>291</td>
<td>359</td>
<td>392</td>
<td>371</td>
<td>451</td>
<td>380</td>
</tr>
<tr>
<td>Latin America:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dollar Area</td>
<td>32</td>
<td>118</td>
<td>113</td>
<td>137</td>
<td>149</td>
<td>160</td>
<td>170</td>
</tr>
<tr>
<td>Total</td>
<td>288</td>
<td>695</td>
<td>829</td>
<td>959</td>
<td>1028</td>
<td>1094</td>
<td>1002</td>
</tr>
</tbody>
</table>

| U.K. Imports from: |
|-------------------|------|------|------|------|------|------|------|
| United States     | 521  | 644  | 511  | 901  | 677  | 591  | 692  |
| Canada            | 340  | 687  | 433  | 600  | 762  | 675  | 675  |
| Latin America:    |      |      |      |      |      |      |      |
| Dollar Area       | 73   | 188  | 214  | 294  | 188  | 205  | 176  |
| Total             | 934  | 1519 | 1158 | 1795 | 1627 | 1471 | 1543 |

<table>
<thead>
<tr>
<th>Balance of Trade:</th>
</tr>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>-646</td>
</tr>
<tr>
<td>-824</td>
</tr>
<tr>
<td>-329</td>
</tr>
<tr>
<td>-836</td>
</tr>
<tr>
<td>-599</td>
</tr>
<tr>
<td>-377</td>
</tr>
<tr>
<td>-541</td>
</tr>
</tbody>
</table>

a--When the trade balance is expressed in million pounds sterling at current rates of exchange, the following results are obtained: -139 -204 -117 -301 -213 -134 -194.

Source: Direction of International Trade, published jointly by the IMF, the IBRD and the Statistical Office of the United Nations. It represented a deterioration of over £50m. per annum compared with 1938 and a substantially larger deterioration compared with the pre-war period 1934-38.

It is not quite possible to analyse these developments into their component changes in unit value and volume with any degree of precision. One estimate\(^1\) put the increase in the volume of U.K.

\(^1\) The Gold and Dollar Deficit of the Sterling Area, op.cit.
exports to North America between 1938 and 1948 at about 30%; at the same time it was found that the imports from North America into the U.K. in 1948 were only 70% in volume of their 1938 level. For British exports to the U.S. an authoritative study indicated slightly different orders of magnitude. It was calculated that by 1948 U.S. imports were, in volume, 90.4% of the average for the period 1935 to 1939; by 1950 they exceeded the 1935-9 level by 25.5%. The increase in the volume of U.S. imports of finished manufactures from the U.K. was faster than for total U.S. imports from the U.K.; compared with the base period of 1935-9, the index showed an increase of 22.5% in 1948 and 60.3% for 1950.

Therefore the modest increase in the trade deficit between pre-war and post-war years masked a very large unfavourable movement in the average unit value of the U.K.'s exports to North America relatively to the average unit value of U.K. imports from the same region. This was largely the result of two devaluations which reduced the foreign exchange content of a pound sterling from 4.64 U.S. dollars in 1938 to 2.80 in 1949. If the volume of U.K. imports from the dollar area had increased in proportion to the volume of her exports to that region, or in proportion to the R.S.A.'s imports from dollar countries, the visible trade deficit with dollar area countries would have assumed very much larger proportions.

The last component of Table 9 is a type of transaction which, in pre-war days, had little direct significance in relation to the dollar balance. Table 13 shows in some detail that in every post-war year, except 1946 and 1953, the foreign exchange reserves were

2 Between 1938 and 1948 the volume of R.S.A. imports from and exports to North America increased by 100%. 
subjected to a drain on account of net gold and dollar payments to non-sterling, non-dollar countries. In 1947 and 1955 such payments exceeded 200 million pounds; in the latter year they were about equal to the direct current deficit of the U.K. with the dollar area.¹

Table 13.
Net Gold and Dollar Settlements in Transactions with Non-Dollar Areas.

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</tr>
</thead>
<tbody>
<tr>
<td>Other Western Hemisphere</td>
<td>-15</td>
<td>-58</td>
<td>-4</td>
<td>-2</td>
<td>10</td>
<td>1</td>
<td>22</td>
<td>9</td>
<td>21</td>
<td>-10</td>
</tr>
<tr>
<td>OEEC Countries</td>
<td>68</td>
<td>-125</td>
<td>-49</td>
<td>-46</td>
<td>-8</td>
<td>-38</td>
<td>-173</td>
<td>13</td>
<td>-65</td>
<td>-203</td>
</tr>
<tr>
<td>Other Non-Sterling Countries</td>
<td>-1</td>
<td>-14</td>
<td>-18</td>
<td>-27</td>
<td>-6</td>
<td>-21</td>
<td>8</td>
<td>39</td>
<td>17</td>
<td>-12</td>
</tr>
<tr>
<td>Non-Territorial Organisations</td>
<td>-6</td>
<td>-52</td>
<td>-7</td>
<td>-2</td>
<td>-1</td>
<td>-1</td>
<td>-4</td>
<td>-3</td>
<td>-36</td>
<td>-4</td>
</tr>
<tr>
<td>Total Gold and Dollar Transfers (Net):</td>
<td>46</td>
<td>-249</td>
<td>-78</td>
<td>-77</td>
<td>-5</td>
<td>-59</td>
<td>-147</td>
<td>58</td>
<td>-63</td>
<td>-229</td>
</tr>
</tbody>
</table>

Sources: Cmd 8976 and Cmd 9731.

These gold and dollar settlements reflect not only the state of the British balance of payments on current and capital account with non-dollar areas, but also the balance of payments position of the Overseas Sterling Area. The basic factor in the problem was a global dollar shortage which compelled many countries to demand payments in dollars. The outflow of gold and dollars from the foreign exchange reserve pool was also due to the inability of the Sterling Area to earn consistently a balance of payments surplus with the non-dollar world. In part the problem was a legacy of the war.

¹ Most of these gold and dollar payments were made to OEEC countries. Their nature is discussed in some detail in chapter 9, where the effect of EPU membership on the British balance of payments is examined.
Large sterling balances accumulated by a number of countries enabled them to settle their debts to the U.K. in sterling. The U.K. however, succeeded in reducing the foreign owned sterling balances from a peak of 1306 million pounds at the end of 1947 to 770 million pounds at the end of 1955.

The problem is then very complex. It is not possible to say in general terms how important such gold and dollar payments would have been in 1938 if the international payments environment in that year had been similar to that of the post-war period. The crucial factor would have been the balance of payments of the Sterling Area on current account with the non-dollar countries. The position between 1938 and, for example, 1954, one of the better post-war years, probably deteriorated. In 1938 the visible exports of the whole Sterling Area to non-dollar countries exceeded visible imports from the same countries by over 400 million dollars¹; in 1954 the margin was about 600 million dollars². It is unlikely that this difference of 200 million dollars³ would have made good the deterioration in the services balance of the U.K.

¹ On a f.o.b. basis.
PART II.

A STRUCTURAL INTERPRETATION: DIFFERENTIAL RATES OF INCREASE OF PRODUCTIVITY AND THE BALANCE OF PAYMENTS.
CHAPTER 3. BALANCE OF PAYMENTS EFFECTS OF PRODUCTIVITY INCREASES

SECTION A. REAL INCOME AND PRICE SUBSTITUTION EFFECTS.

Introductory Remarks.

Two considerations help to place the statistical analysis of Part I in a proper perspective. In the first place, the deterioration in the British balance of payments with the dollar world between 1938 and the post-war period represented a step in a process which had probably been in progress since the early 'twenties. Secondly, the experience of the U.K. in the field of her payments relations with the dollar world was shared, both before and after the Second World War, by a great number of countries; and, in particular, by most countries in Western Europe.

On the strength of evidence of this kind it is natural to ask whether the dollar shortage is a permanent phenomenon, and whether the post-war payments developments are an intensified phase of an old problem. If the dollar shortage is chronic, then it must be caused by structural factors emanating from the U.S. and operating in a dynamic fashion. In the nature of the case, dynamic influences are associated with the rate and the direction in which an economy is growing. It is quite possible that many factors, such as the size of the U.S. economy and the diversity of her resources have a bearing on this question. But the main determinant of the rate of growth is the rate of increase of productivity. This is especially so under conditions of full employment. The issue at stake, therefore, is whether the rate of increase of productivity in the U.S. compared with the rate of increase in the outside world, and especially in the U.K., is in some measure responsible for the dollar problems.
In view of the fact that there is considerable variation in opinion as to how a rapid rate of increase of productivity in one part of the world affects other countries, a section of this chapter consists of an attempt to study under simplified conditions the balance of payments effects of a change in the rate of increase of productivity. The next stage represents an appraisal of the simplifying assumptions, i.e. how far their removal invalidates any of the earlier conclusions. In the following chapter, the hypotheses are tested against some of the available statistical information.

Survey of Literature.

Opinion is sharply divided as to how differential rates of productivity growth may effect the balance of payments. This division of opinion is not simply between those economists who attribute causal significance to productivity and those who consider that the rate of increase of productivity is an absolutely irrelevant consideration to the problems of international payments disequilibrium. What has been said by economists of the former school of thought would seem to indicate that literally anything can happen to the balance of payments when productivity increases faster in some countries than in others.

The central question is what type of productivity increases in country A are likely to cause payments difficulties in country B. Four cases can be distinguished, depending on the section of the economy in which progress is most rapid. First, there are productivity increases which are uniformly spread throughout the economy. Second, there are those which exhibit an export bias, i.e. tend to be concentrated in those industries which export a large part of their output. Third, productivity increases may be import
biassed. Lastly, there are those upward changes in the rate of
growth which display no particular pattern, but are essentially
random.

R. Harrod claims\(^1\) that only export-biassed increases in pro-
ductivity can create a payments surplus in the country in which they
originate, and therefore create difficulties in other countries.
E.M. Bernstein also concedes\(^2\) that a more rapid increase in pro-
ductivity in the export industries may, under certain circumstances,
cause trade deficits in some other countries. On the other hand,
Professor Hicks, the first economist to formulate an analytical
apparatus for a more rational study of the problem, has pointed
out\(^3\) that improvements in productivity in country A which are con-
centrated in the export sector constitute the most favourable case
for country B. There may, of course, be monetary difficulties, but
the underlying assumption is that such difficulties can be surmounted
by the operation of traditional financial policy. And the commo-
dity terms of trade must, in any case, turn in favour of B.

For Hicks it is import biassed improvements that are to be
feared. In this case both the monetary and the barter or real
consequences are unfavourable for country B. "If incomes in both
countries remained constant, the prices of A-products which competed
with B-exports would fall, so that A's demand for B-exports would
decline; and this would itself be enough to cause a deficit in B's
balance of payments, for there would be no reason why B's demand for
A's exports should be affected. Thus, in order to maintain a trade

\(^2\) E.M. Bernstein, American Productivity and the Dollar Payments Prob-
\(^3\) Hicks, An Inaugural Lecture, Oxford Economic Papers, June 1953,
p. 127.
balance there must be a rise in A-incomes relatively to B-incomes; the factorial terms of trade must turn adversely to B. Further, since there has been no improvement in productivity in A's export industries, a rise in A-incomes implies a rise in the prices of A-exports, so that the commodity terms of trade must turn adversely to B. Whatever are the monetary arrangements, whatever the course of money incomes, an improvement in A-productivity that is import biased must make B worse off.¹ A point similar to that made in the previous quotation was first made by Haberler.²

A third point of view is held by Balogh in his "Dollar Crisis Revisited".³ There he argues that random improvements in productivity, through their unpredictable impact, are likely to generate a payments surplus for the progressive country.

At an earlier date Balogh⁴ together with J. Williams⁵, Joan Robinson⁶ and others held that even a higher rate of increase in productivity uniformly spread throughout the economy was likely to result in payments difficulties for the less rapidly progressing countries.

An entirely divergent opinion is expressed by those who deny that rapid rates of growth in the U.S. can be held responsible for any general external disequilibrium. Looked at from another angle, Henderson argues that Britain "might well gain rather than lose from having a relatively slow rate of growth."⁷ For productivity increases are likely to be accompanied by an increased demand for

¹ op. cit.
⁴ In Foreign Economic Policy for U.S., p. 231.
imports, and may not bring in their trail a substantial reduction in prices. Though nobody has put it so strongly, Henderson is not alone in thinking that it is the country with the rapid increase in productivity which is more likely to develop a payments deficit. For instance, S. Laursen thinks\(^1\) that the balance of payments of countries with the highest rate of productivity growth are likely to suffer because, on his assumptions, primarily that of full employment, real income will rise faster in the more progressive country than elsewhere. Bernstein also thinks that the general effects of an increase in U.S.A. productivity will be favourable to the payments position of other countries. For an increase in productivity is merely the counterpart of an increase in real incomes. Though he concedes that the specific effects of an increase in U.S. productivity may, in particular circumstances, outweigh the general effects for particular countries, he still questions the rationality of welcoming cyclical expansion in the U.S. while at the same time looking upon an increase in American productivity with awe. For their general effects are the same.\(^2\)

There are two more shades of opinion which, while they may not necessarily contradict any of those outlined above, must nevertheless be mentioned in order to complete the picture. Firstly, it may be argued that productivity increases in country A affect the balance of payments of country B differently from that of country C, depending on all sorts of factors, such as the type of each economy and the degree of a country's dependence on imports. This was one of the trump cards of Dr Balogh in his attack on the classical theory

\(^2\) Bernstein, op.cit., p.109.
of international trade. Recently J.R. Sargent has tried "to elaborate the proposition that a relatively rapid advance of productivity in one country of the world, while it may be manna for the others as a whole, it is bound to be mustard for some of them".\(^1\) The implication appears to be that, while it is legitimate to attribute specific dollar shortages to disparate rates of growth, it will never do to attribute to the same cause a general dollar shortage.

Secondly, Professor D.H. Robertson\(^2\) lays stress on the rapidity with which differential rates of growth may necessitate structural adjustment in the less progressive countries. Productivity differences are the bases of international trade. The principle of comparative costs loses some of its practical validity if the rate of increase of productivity tends to be uniform in all countries. But if changes in comparative endowments, i.e. in productivity, came in quick succession, and had, as is likely, originated in the more progressive country, then the strain of adjustment might prove too much for what, by definition, is the weaker country. Though the costs and strains of adjustment cannot be an explanation of the dollar shortage, it is still possible, Robertson concludes, that productivity changes, constantly necessitating adjustment, may lie at the foot of the payments problems of the last 30 years.

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Some of the opinions appearing in this short survey were held as if they were self-evident propositions. No attempt was made to show how differential rates of growth would tend to disrupt the international payments equilibrium. However, even in instances in which a reasoned case was put forward, this review confined itself to reporting their results rather than the arguments on which they were based. No comment or criticism was offered. Instead, in the following pages, an attempt will be made to analyse, in the most relevant manner, the probable balance of payments effects of differential rates of increase in productivity.\footnote{The following analysis owes much to the analytical tools developed by Professor Hicks. It also draws upon Mr Sargent's article, cited above, which applied those tools to a more than two-country model.}

**The Assumptions.**

1. Increasing productivity affects a country's position in the world economy partly through the price mechanism. The first group of assumptions must be directed toward isolating the effects of a rise in productivity on a country's price level. Hence, it is assumed that no other factor besides the rate of growth affects a country's price level, including the price of its exports. As a corollary, it is also assumed that there are no significant variations in the rate of exchange.

2. By the same token, the second assumption refers to the course of money incomes. The level of money incomes, unlike that of real incomes, is not chiefly determined by the rate of increase of productivity. Money incomes are a matter of economic policy, and economic policy can be altered by a national government. Any assumption as to the course of money incomes cannot therefore do justice
to the complexity of the situation as it may arise in practice. Here it is assumed, at first, that productivity changes leave the level of money incomes\(^1\); and, in particular, the level of money wages unaffected; for this makes it possible to study separately those balance of payments effects which are, so to speak, inherent in a change in the rate of increase of productivity.\(^2\)

3. The first and second assumptions, taken together, imply that changes in the level of prices will tend to be negatively correlated with changes in the rate of increase of productivity. Further, it is here assumed that the larger the rise or fall in the rate of growth, the greater the effect on prices.

4. The assumption that changes in prices are roughly proportional to the rate of increase of productivity implies, in turn, that the chief determinant of changes in total production is the rate of increase of productivity. Changes in real income are positively correlated with changes in productivity.

5. Productivity may not increase at a uniform rate in all industries. It is assumed that in each country three types of industries can be distinguished: first, those which produce goods which

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1 For an alternative assumption as to the course of money incomes, see below.

2 In the Hicksian model a distinction is drawn between barter and monetary effects on the balance of payments. Monetary effects are those which arise out of difficulties in the adjustment of money incomes. Barter effects are those which persist whatever the course of money incomes. Professor Hicks assumes that productivity does not rise at all in one country. In an accounting sense, the balance of payments must always balance; there is, thus, by implication, an appropriate level of money incomes in the country in which productivity is rising which will maintain the balance of payments in equilibrium. Hicks asks whether this appropriate level of money incomes entails a decline in real income (as measured by changes in the double factorial terms of trade) for the country in which productivity is not rising; he also distinguishes between monetary and barter effects on this basis. The dollar difficulties of the last 30 years were not all due to forces which would have necessitated an adjustment involving a large decline in the real income of the U.K. In its earlier phase, i.e. in the 'twenties, the dollar shortage was due, according to Hicks, to difficulties of a monetary character.
do not enter into trade; second, those which export a large part of their output; and third, those producing goods which compete with imports and may be used as import substitutes.

6. This essay is not concerned exclusively with the effects of productivity changes in one country on the balance of payments position of the rest of the world as a whole; it is also concerned with the effects on one particular country, namely the United Kingdom. The model used should contain more than two countries. It is assumed that the world consists of the following countries. These are A and B, two predominantly manufacturing countries. Exchange of goods between them is not on a very large scale since they are competitive economies producing an approximately similar range of goods. The bulk of their trade is done with countries C and D. C's and D's economies are different from, and complimentary to, the economies of A and B. In trade with C and D, A's and B's exports are reasonably good substitutes for each other. Country C is assumed to be mainly a producer and exporter of raw materials, and country D mainly a producer and exporter of foodstuffs.

On these assumptions, two balance of payments effects are inherent in a change in the rate of increase of productivity. Firstly, there is a real income effect. Increased productivity has its counterpart in an increased flow of goods and services; the country is better off in real terms. Assuming that in the usual case the real income effect is positive, there will be a rise in the demand for imports and, at the same time, a tendency to consume at home exportable goods.

Secondly, there is a price substitution effect. A faster rate of growth tends to lower and a slower rate of growth to raise the level of prices. Assuming again that in the normal case the volume of
trade is sensitive to price changes, a fall in domestic prices will tend to stimulate the foreign demand for the exports of the country, and at home stimulate demand for goods which compete with imports. Demand for imports, on the other hand, will tend to decline.

The real income and price substitution effects are inherently present in productivity changes. But there are also other balance of payments effects which are causally related to a fast rate of increase of productivity; they need not, however, be present in every instance of rapid growth. Some of these effects, such as the production of new goods, are very important. It is not intended to ignore effects of this kind; but as they cannot be taken into account in a formal model without unduly complicating the issues, they will be considered at a later stage.

**Uniform Increases in Productivity.**

Assume that productivity increases faster in country A than in either B, C or D, and that in the three latter countries productivity increases at approximately the same rate. Also assume that in all four countries the rate of increase of productivity is uniform for all industries. Starting from a position of equilibrium, in which way is the balance of payments of each country likely to be affected?

Take first, the real income effect. As a result of the faster rate of increase of productivity in country A than in B, C or D, production and real income rise faster in A than in the other three countries. A's demand for imports increases and her balance of payments moves into deficit. B's, C's and D's balance of payments benefit, but C's and D's more than B's since it is assumed that trade between A and B is small in comparison with trade between A on the one hand and C and D on the other. A's demand for imports from C probably
increases more than her demand for imports from D; for, as real income rises, the propensity to import raw materials tends to be higher than the propensity to import foodstuffs.

Consider, then, the price substitution effect. The price of all A-goods falls uniformly faster than the price of all the products of B, C and D. The tendency at work is for A to substitute her own products for goods formerly imported. C and D, which are the largest sources of imports for A, appear likely to suffer a substantially greater deterioration than B in their balance of payments with A. But the evidence is not conclusive since the price elasticity of substitution is likely to be higher for manufactured goods than for either foodstuffs or raw materials.

At the same time, B, C and D can be expected to move away from their exports to each other towards the cheaper exports of A. The most likely consequence is that B's balance of payments with C and D will move into deficit. For, B has few opportunities to replace C's and D's products by A's; whereas C and D can substitute A's cheaper products for the similar exports of B.

The evidence, thus, as to what is likely to happen to the balance of payments of A with the rest of the world is not conclusive. The two effects operate in opposite directions. The real income effect tends to worsen and the price substitution effect to improve A's overall balance of payments. The outcome depends on the relative strength of the two effects. On the other hand, the evidence indicates, though not conclusively, a deterioration in the balance of payments of B with third countries, i.e. C and D.

**Export-Biassed Increases in Productivity.**

Some more definite results are obtained if it is assumed that the increase in productivity in country A is not uniformly spread
through the economy but is concentrated in her export industries. It is again assumed that average productivity is rising faster in A than in B, C and D, and that in the three latter countries it is rising at the same rate.

Consider, first, the price substitution effect. As a result of the export bias in the productivity increase in A, A's export prices tend to fall relatively to the export prices of B, C and D. These three countries tend to substitute A's goods for their own and for their exports to each other. In each country there are two aspects to the operation of this substitution effect. Take, for instance, country B; first she moves towards the exports of A and away from her own products which compete with these exports; second, B also moves toward A's exports at the expense of C's and D's exports. C and D behave in a similar fashion.

B's balance of payments is likely to be adversely affected. In the first place, B's direct balance of payments with A tends to become somewhat more unfavourable, but not very much since A's exports to B are assumed to be relatively small and since competition between B's own products and A's products in B's market is likely to be imperfect. But, in the second place, the loss of exports to third markets may be quite serious for B. C and D tend to substitute A's cheaper exports for B's; and since A and B are structurally similar and competitive economies, B's loss of exports is likely to be substantial.

There is, of course, a counter tendency at work: B tends to substitute A's cheaper exports for C's and D's exports. But A exports manufactures, C raw materials and D foodstuffs; A's exports are poor substitutes for C's and D's. This substitution effect is thus not large. The balance of payments of B with C and D, as well
as her balance of payments with A, can, therefore be expected to move into deficit.

What about C's and D's balance of payments with A? In the normal case both C and D are likely to import more from A as the latter's export prices fall; their balance of payments with A will become passive. This seems to hold out the possibility for A to settle her own deficit with C and D by providing them with A's currency which they require. But this requires that B's elasticity of demand for A's exports should be inelastic so that when A's export prices fall she imports less from A. As indicated in the previous paragraph, this is unlikely to be the usual case, for A exports mainly manufactures, and the volume of exports of manufactures is, as a rule, sensitive to price changes. So, as far as the price substitution effect is concerned, B cannot gain any comfort from the fact that C's and D's balance of payments with A will become unfavourable. On the contrary, the less C and D move into deficit with A, the less B's own deficit with C and D is likely to be; for any substitution in favour of A's exports on the part of C and D is likely to be at the expense of B's own exports. Finally, should C's and D's demand for the exports of A be inelastic, C and D will add a payments surplus with A to their surplus with B.

Consider, next, the real income effect. A's balance of payments with the other three countries tends to deteriorate as in the case of uniform increases in productivity. But as the increase in productivity is concentrated in A's export industries and as money incomes in A remain constant to allow export prices to fall, the lion's share of the increase in real income goes to B, C and D. The customers of A, as well as A herself are better off than before. Given the nature of their economies, C and D gain much more than B.
It should also be mentioned that the marginal propensity to import is likely to be higher in the primary producing countries C and D rather than in a predominantly manufacturing country like B.\(^1\) On both accounts, C's and D's balance of payments with A is likely to deteriorate much more than B's balance of payments with A.

So much for the direct balance of payments between A on the one hand and B, C and D on the other. But the gains conferred on the latter countries due to the reduction in A's export prices can, if desired, be spent on the products of other countries besides those of A. The operation of the real income effect is not, therefore, likely to leave B's balance of payments with C and D unaffected. The situation inspires a certain amount of optimism. For, on a priori grounds, one expects C and D to increase their expenditure on B's products by more than B increases her expenditure on C's and D's products. For, first, B's gain in real income is smaller than C's or D's. Second, B is unlikely to spend large additional sums on the purchase of foodstuffs from country D. On the other hand, there remains the disastrous possibility for B that her exports are rendered "inferior" by progress in A, so that C and D spend less on them as their real income rises. The likelihood that B's products may be regarded as inferior is enhanced by the fact that A and B are manufacturing countries producing distinctive goods.

\(^1\) This conclusion is based here on the general consideration that, as real income increases, a smaller proportion of income tends to be spent on food and a larger proportion on manufactured goods. For primary producing countries this implies increased imports. Statistical evidence appears to confirm that the marginal propensity to import is higher for primary producing than for manufacturing countries. See, for instance, T.C. Chang, International Comparison of Demand for Imports, Review of Economic Studies, Volume XIII, 1945-6, p.64.
Similar reasoning can be applied to the case where B, C and D tend, as their real income increases, to consume at home goods which were formerly exported. Thus even if the income propensity to import is zero or small, the balance of payments of B, C and D with A will deteriorate, provided that their income demand for exportable goods is positive.

To sum up: on the whole, an export-biassed increase of productivity in A is likely to worsen B's balance of payments, chiefly through the substitution of A's products for B's in third markets. The real income effect will, on balance, tend to operate in B's favour, but it is unlikely to make good the loss of exports inflicted upon B through the operation of the price substitution effect. The outcome for C and D is more in the balance. They are fairly certain that as a result of the price substitution effect they will accumulate a surplus in their payments with B. Against that, and as a result of the operation of the same effect, C and D are likely to run into deficit with A; moreover, this unfavourable tendency will tend to be reinforced by the operation of the real income effect which is likely to worsen their balance of payments with both A and B. Other things being equal, the balance of payments of C will probably improve more than that of D; for as the world's real income increases, relatively less will be spent on D's exports of foodstuffs than on C's exports of raw materials. Lastly, the balance of payments of A vis-a-vis the rest of the world will tend to improve; for, when increases in productivity are concentrated in A's export industries, a large part of the increase in real income accrues to A's customers. Both the real income and the price substitution effects will, therefore, operate in a manner favourable to A's balance of payments.
Import-Biassed Increases in Productivity.

Suppose that increases in productivity in A are concentrated in those industries which produce import substitutes. It is, again, assumed that average productivity in A rises at a faster rate than in B, C and D, and that in the three latter countries productivity increases at the same rate.

Consider the operation of the price substitution effect. As the rate of increase of productivity is most rapid in A's industries producing goods which compete with imports, the impact of this effect is chiefly felt in A's home market. The price of import substitutes falls. The increased demand for import substitutes is at the expense of goods formerly imported from B, C and D. All three countries are bound to move into deficit with A, but C and D probably more than B because their trade with A is relatively large. The evidence, however, is not conclusive; for, it is probable that B's smaller exports of manufactures to A are more price sensitive than C's and D's larger exports to A which consist of primary products.

As A's export prices do not fall much, if at all, relatively to the export prices of B, C and D, there is no direct price substitution effect in either of the three latter countries in favour of the exports of the other two. But again it is probable that indirectly the balance of payments of B with C and D will improve. For the decline in A's prices is chiefly in lines in which she competes with the exports of C and D. If the fall in A's prices is sufficiently large, goods which were formerly used only as import-substitutes in A, will become export goods. B will tend to shift away from C's and D's exports towards the new and cheaper exports of A.

The effects of increased real income have to be taken into account. As the improvement in productivity in A is import-biassed,
this benefit is almost entirely reaped by A herself. Insofar as B now obtains her imports of primary products from A instead of from C and D, she will also be somewhat better off than before. A is free to spend her increased income anywhere she likes. She will, of course, spend a large part of it on her own import substitutes, the price of which has fallen. But she will also increase her imports from B, C and D. C will probably benefit most since the rise in real income and expansion of production in A will result in higher imports of raw materials into that country. B's exports may also have a high income elasticity; she is also favourably placed to expand her exports to A because A's products which compete with B's exports are not appreciably cheaper than before. On the other hand, B's trade with A is relatively small, and even a large proportional increase in B's exports to A may not represent a great improvement in absolute terms. Although D's exports to A are large they may expand very little; for A's demand for food and foodstuffs is likely to rise at a slower rate than her real income. The operation of the real income effect will, therefore, tend to worsen the balance of payments of A and improve, to a varying extent, the balance of payments of the other three countries.

The operation of the real income effect is unlikely to alter appreciably the balance of payments of B, C and D with each other. If B increases her imports of goods formerly used solely as import substitutes in A, she will be somewhat better off than before. But, by the same token, she is unlikely to spend this increased income on C's and D's imports since their competitive position is weakened by the import-biased increase in productivity in A which turns A's import substitutes into export goods. The probability of this happening will be enhanced if these categories of primary commodities are
broadly similar rather than distinctive products of each particular country.

In conclusion, for most countries the import-biassed case does not give such a clear-cut answer as is obtained in the export-biassed one. The most vital question, i.e. what is likely to happen to A’s overall balance of payments remains indeterminate. The real income effect tends to worsen the balance of payments of A with all other countries; and it does so in a more emphatic manner than in the case of a uniform increase in productivity, because almost all the increase in real income is reaped by A herself. On the other hand, the price substitution effect improves A’s balance of payments with all countries, and especially with C and D. B’s position is also uncertain. The real income effect probably leaves her balance of payments with C and D unaffected but improves her balance of payments with A. The price substitution effect worsens B’s balance of payments with A but probably improves her position vis-a-vis C and D. D is the country most likely to experience a deterioration in her balance of payments; the adverse consequences of the price substitution effects are unlikely to be made good by the operation of the real income effect because demand for her exports of foodstuffs is unlikely to increase proportionately with real income. This consideration is very relevant to the import-biassed case because the increase in the world’s real income is concentrated in A, the country which probably already enjoys the highest standard of living.

**Random Increases in Productivity.**

The rate of increase of productivity in A may not be uniform for all sections of industry and at the same time exhibit no consistent patterns of bias. In a theoretical analysis, it is, by definition, impossible to study systematically the effects of random
increases in productivity. The geographical distribution of losses and benefits will be random depending on which industries abroad are affected by productivity increases in A.

It is conceivable that, should improvements in productivity in A happen to affect adversely industries in another country, for instance B, the balance of payments of that country will deteriorate. But there is no general theoretical reason why random improvements should work consistently to the detriment of one individual country; for if they did, they would hardly be random. Moreover, as the preceding analysis has shown, it is not always certain that any type of increase in productivity in A will necessarily improve the balance of payments of that country.

One type of generalisation, however, seems permissible. If increases in productivity in A are unusually rapid in specific industries, whereas for the country as a whole the increase in productivity is not very much in excess of that in other countries, the real income effect will tend to be pushed into the background. The price-reducing effect of a productivity increase will, then, be the main consideration; A will tend to export more of those goods the price of which has fallen. If the increase in productivity in A is most rapid in industries producing goods which bulk large in the exports of B, C or D, the competitive position of these countries will be seriously weakened. On the other hand, the random increases in productivity in A are confined to specific industries; they do not, for instance, affect all her export industries to the same extent. Increased exports of one of A's goods may affect adversely A's sales abroad of a similar good, the price of which has fallen little or not at all.

Even though average productivity rises faster in A than in B, C and D, random improvements in the three latter countries may be in
industries producing goods strongly competitive with the exports of A. Thus, in spite of the fact that average productivity rises fastest in A, the industrial distribution of random increases in productivity in A, B, C and D may be such as to bring about a deterioration in the balance of payments of A.

The conclusion is a rather negative one. When increases in productivity in the four countries are distributed in a random fashion, there is no a priori reason why the balance of payments of the country in which average productivity rises fastest, i.e. A, should improve, and the balance of payments of countries with a slower average rate of growth deteriorate. Everything depends on which specific industries show the most rapid rise in productivity.

An Alternative Assumption as to the Course of Money Incomes.

The preceding analysis was made on the assumption that money incomes remained constant in all countries. The same assumption could have been formulated in another way by stating that there is a considerable time-lag between the increase in productivity and any change in the level of money incomes; thus there is a period of time within which productivity changes are reflected in price changes to the fullest possible extent.

The course of money incomes in each country is a matter for national economic policy; within fairly wide limits, it is not uniquely determined. It can be changed by a policy decision. The conclusions reached so far, thus, do not possess an unqualified validity, but are conditional on the assumption of unchanged money incomes. An alternative assumption as to the course of money incomes may necessitate modification of the earlier conclusions. In theory, there is an appropriate level of money incomes in each country which tends to
maintain the balance of payments in equilibrium. Here the influence of productivity changes on the balance of payments is considered under one alternative assumption as to the course of money incomes; this assumption appears plausible in the light of the economic and institutional structure of many contemporary societies.

The new assumption is that money incomes and wages in each country tend to rise about simultaneously with average productivity in that country. All the other assumptions remain the same as in the earlier analysis. In the export-biased case, it is assumed that productivity rises fastest in A's export industries, that average productivity increases more rapidly in A than in B, C and D, and that in the three latter countries it does so at approximately the same rate. To obtain more definite results, the assumption is explicitly made here that productivity in B's, C's and D's export industries does not rise faster than average productivity in each country.

The two effects, i.e. the real income and price substitution effects, are still present. But their operation is likely to be modified. Consider first the price substitution effect. This effect is not likely to operate to the same extent as in the earlier analysis because productivity increases are not reflected fully in a fall in prices; for money incomes are assumed to rise with average productivity. As, however, money wages in A's export industries rise in proportion to the increase in average productivity in the country, and as productivity in A's export industries rises more rapidly than productivity in the economy as a whole, the competitive position of A's

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1 But, as Professor H.S. Johnson points out, there is no simple rule "which defines the long-run monetary policies required to maintain balance of payments equilibrium between growing economies under a regime of fixed exchange rates". See, Increasing Productivity, Income-Price Trends and the Trade Balance, in Economic Journal, September 1954, p. 482.
export industries abroad will be strengthened.

B is not, therefore, immune from the severe effects of C's and D's tendency to shift away from B's export products toward the rival exports of A; their intensity will, however, be less because the fall in A's export prices is less than in the earlier analysis. B may also avoid a substitution effect in favour of A's exports in her own home market. This depends on whether the increase in productivity in B's industries producing goods which compete with imports from A is or is not larger than the average productivity increase for all B-industries. If productivity in import substitute producing industries in B increases at a slower rate than average productivity, and given that the average productivity increase in A is more rapid than in B, then B's position will be impaired even in her own home market. If, on the other hand, productivity in B-industries producing import-substitutes rises faster than average productivity, B’s position in her own home market may remain unimpaired or even improve in spite of the fall in A’s export prices. However, the impact of this effect on the balance of payments of B is likely to be relatively small because it is assumed that trade between A and B is not large.

Thus when the assumption is made that in each country wages tend to rise with average productivity, the outlook is more encouraging for B than when the price substitution effect is studied under the assumption of constant money incomes. For C and D the prospect is one of a smaller surplus with B and a smaller deficit with A.

Consider next the real income effect. As export products are also consumed at home, the rapid increase in productivity in A's export industries makes A better off than before; in A this effect cannot be modified by the introduction of a purely monetary consideration. Country A, viewed as a whole, is as well off in real terms as she would have been if money incomes had remained unchanged. In this instance,
the benefits of increased productivity are reaped in the form of higher money incomes; in the earlier case they were reaped through lower prices.

The effect of this difference, however, on A's demand for imports may be considerable. When prices and money incomes rise, the benefits within each broad industrial sector are likely to be reaped by those classes whose incomes are more easily adjusted to price changes, i.e. chiefly by the working classes. As a rule, these classes tend to have a higher propensity to spend and import than classes with fixed incomes which would have participated more fully in the increase in real income if prices had fallen and money incomes remained unchanged. As a result of the operation of the real income effect in A, therefore, the balance of payments of B, C and D is likely to improve, and to improve more than it would have done if money incomes had remained constant. It is also probable that the changed distribution of benefits within A will, relatively speaking, favour D's exports of food and foodstuffs.

As productivity increases in A are export-biased, the customers of A are also better off than before. But their increased real income is derived from the fall in A's export prices. This fall is smaller than when it was assumed that money incomes remained constant. The increase in real income of B, C and D is correspondingly smaller; and so is the deterioration in their balance of payments with A.

The new assumption calls for a modification, but not for a radical change in the earlier conclusions. When money incomes are assumed to rise with average productivity, A's position is likely to become less favourable than when it is assumed that money incomes remain unchanged. But A's balance of payments will still improve; for her export prices are likely to fall and the real income of the rest of the world increase.
Consider the case in which increases in productivity in A are concentrated in those industries which produce goods competing with imports. The other assumptions are the same as in the export-biassed case.

Will the operation of the price substitution effect be modified? Any modification is likely to be one in the degree of intensity, not in the direction, of the operation of this effect. This is certain on the assumption that productivity in B's, C's and D's export industries does not rise faster than average productivity in each country. As productivity rises fastest in import-competing industries in A, but money wages tend to rise with average productivity, there is still a price substitution effect operating in A's home market in favour of goods which compete with imports. But as the fall in the price of import substitutes in A is not as great as when it was assumed that money wages remained stationary, the intensity of the operation of this effect is in this case correspondingly reduced. This reduction benefits chiefly the balance of payments of C and D; for they are the main suppliers of A's imports.

The introduction of the new assumption makes no difference to the increase of real income in A as a whole. But, as in the export-biassed case, the probable redistribution of wealth within A in favour of those classes whose money incomes are relatively easily adjustable tends to make for a higher propensity to spend and import. The quantitative importance of this effect is greater in the import than in the export-biassed case; for when productivity increases in A are mainly import-biassed, the ensuing increase in real income is almost all reaped by A herself.

In the import-biessed case, the evidence is again not sufficient for the drawing of definite conclusions. In A, the real income and price substitution effects continue to work in opposite directions.
But when money incomes are assumed to rise with average productivity, the probability that A's overall balance of payments will become passive is greater than when it was assumed that they remained constant. For the change of distribution of income in A makes for higher imports; at the same time, the displacement of B's, C's and D's exports to A by import substitutes is on a smaller scale because the price of the latter falls less than when it was assumed that money incomes remained unchanged.

In conclusion, the changes introduced by the new assumption becomes very clear when it is considered, for a moment, that in B, C and D productivity does not rise at all. Take, for example, the export-biased case. As productivity does not rise, there is no increase in money incomes and no change in prices. In these countries there is also no redistribution of wealth against the fixed-income classes. These results hold true irrespective of which assumption as to the course of money incomes is employed. But when it is assumed that money incomes remain constant, A's export prices fall by the full increase in productivity in her export industries. On the other hand, when it is assumed that money incomes rise with average productivity, A's export prices fall only\(^1\) by the margin by which the productivity increase in A's export industries exceeds the average productivity for A's economy as a whole; at the same time, there is a redistribution effect in favour of those classes which probably have the highest propensity to import.

\(^1\) This consideration takes no account of the improbable case in which productivity in A-industries, other than those producing for export, falls absolutely.
Lastly, when money incomes rise with average productivity, there is a reason indicating that A is more likely to develop a payments surplus in the import-biassed than in the export-biassed case. In the export-biassed case, A's export prices tend to fall because the increase in productivity in A's export industries is more rapid than the increase for the economy as a whole. But, by definition, productivity in A's non-export industries taken as a whole rises less than average productivity in A. If, as is possible, productivity in those industries which produce goods competing with imports rises less than average productivity, the price of A's import substitutes will rise, for money incomes rise at the average rate of increase of productivity for all industries in A. The position of A's import-substitute producing industries in her own market will, therefore, be impaired.

The reverse will be true when productivity in A rises fastest in industries which produce import substitutes. In this case, it is probable that productivity in A's export industries increases more slowly than average productivity. A's export prices will rise, and her position abroad will deteriorate. Both these, so to speak, "secondary" effects, will influence adversely A's balance of payments. But, other things being equal, A's balance of payments is likely to deteriorate more in the latter than in the former case; for her more expensive products will be harder to displace in her own home market than in markets abroad.
Appraisal of Assumptions.

The aim of this section is two-fold: first, to discuss whether the assumptions on which the preceding analysis was conducted were reasonable and tolerably realistic; second, to provide a more complete picture by considering some additional balance of payments effects which are likely to be associated with a rapid rate of growth.

As P.D. Henderson points out the first assumption presents no difficulty; it is essential to any model, however realistic it claims to be. It was assumed that only the rate of increase of productivity affected the price level and that there was no significant variation in the rate of exchange. This assumption was simply made in order to isolate the effects of changes in productivity on relative prices. Other influences on the price level may be, and probably are, at work; but it is assumed that these influences are given or that they are independently determined, and are not in any way causally related to the rate of increase of productivity.

Either version of the second assumption is likely to be met with a degree of scepticism. It was assumed that the money incomes in each country either remained unchanged or tended to rise with average productivity in the country. The consideration underlying these assumptions is that the rate of increase of productivity is not the main determinant of the level of money incomes. Instead, it is assumed that, within a wide margin, money incomes are determined by governmental decisions and can therefore follow any independent course. When the theoretical analysis is applied to concrete situations, the latter version of the assumption can be criticised on the ground

that it does not reflect the situation as it is most likely to arise in practice.

In a theoretical analysis, the first version of the assumption, i.e. that money incomes and wages remain constant or that they rise at the same rate in all countries, is the only justifiable one. For, it is maintained here that there is no direct causal relationship between the rate of increase of productivity and the rate of increase of money incomes.¹ There are thus only two effects which are inherent in a productivity change: the real income and the price substitution effects. If, however, it is accepted that the rate of increase of productivity tends to affect money incomes in a certain way, then a money income effect would have to take its place beside the price substitution and the real income effects.²

In the circumstances, it is to be expected that empirical investigations would show little correlation between short and medium term changes in productivity and the level of money wages. Table 14 sets out evidence relating to productivity and nominal earnings in U.S. manufacturing industries in the period 1920 to 1948. Year by year fluctuations in the two magnitudes were often in opposite directions; when they did move in the same direction, there was no consistent proportional relationship between a change in output per man-hour and a change in average hourly earnings.

¹ In the context of a discussion of balance of payments problems, the short-run relationship is the most significant one; the statement in the text refers to this relationship.
² In practice, a similar situation could arise if the influences which determine short-term variations in productivity and money wages were the same. This is not the case. See C. Kerr, The Short-Run Behaviour of Physical Productivity and Average Hourly Earnings, in Review of Economics and Statistics, 1949, especially pp. 302-3.
Table 14.
Year to Year Percentage Changes in Man-Hour Output and in Average

<table>
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<th>Year</th>
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<th>Average Hourly Earnings</th>
<th>Year</th>
<th>Man-Hour Output</th>
<th>Average Hourly Earnings</th>
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</table>

Source: C. Kerr, The Short-Run Behaviour of Physical Productivity and
Average Hourly Earnings, in Review of Economics and Statistics,
1949, p. 299.

Table 15 on page 85 compares labour costs in industry per unit of output with average output per man-year in a number of western European countries and in the United States over the period 1938 to 1948. Again, the two indexes exhibited little or no correlation. To illustrate, between 1947 and 1948 average output per man-year in Sweden remained almost unchanged; yet, in the same period labour costs, expressed
### Table 15.

**Labour Costs in Industry per Unit of Output in terms of U.S. Dollars.**

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>Belgium</td>
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<td>283</td>
<td>299</td>
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<tr>
<td>France</td>
<td>(137)</td>
<td>109</td>
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<td>202</td>
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<td>99</td>
<td>106</td>
<td></td>
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<td>232d</td>
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<tr>
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<td>118</td>
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<td>84</td>
<td>96</td>
<td>246</td>
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<tr>
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<td>103</td>
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<tr>
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<td>95</td>
<td>106</td>
<td>155</td>
<td>163</td>
<td>165</td>
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<td>95</td>
<td>95</td>
<td>104</td>
<td>108</td>
<td>169</td>
<td>185</td>
<td>198</td>
</tr>
</tbody>
</table>

### Average Output per Man-Year in Industry.

<table>
<thead>
<tr>
<th></th>
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<td>101</td>
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<td>62d</td>
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<td>114</td>
<td>115</td>
<td>117</td>
</tr>
<tr>
<td>U.K.</td>
<td>93</td>
<td>102</td>
<td>107</td>
<td>99</td>
<td>104</td>
<td>107</td>
<td>115</td>
</tr>
<tr>
<td>U.S.</td>
<td>96</td>
<td>105</td>
<td>105</td>
<td>94</td>
<td>120</td>
<td>125</td>
<td>127</td>
</tr>
</tbody>
</table>

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a—Average 1936-8=100. Unadjusted for hours of work.
b—Average 1935-38=100.
c—Prewar exchange rates, 27 cents; after mid-1948 the official rate of 30 cents.
d—2nd half of 1948.

**Source:** Economic Bulletin For Europe, 2nd Quarter 1949, pp.31-5.
in dollars) increased by nearly 10%. In Belgium between 1946 and 1947 output actually declined; whereas labour costs increased very substantially. Thus, when the experience of a number of countries is compared, a similar picture emerges. For instance, between 1946 and 1947, American and British output per man-year increased at approximately the same rate; but between the same years labour costs rose considerably faster in the U.S. than in the U.K.

However, the picture changes when an attempt is made to apply the findings of the theoretical analysis to a concrete situation. Within a given society, claims for higher money wages are advanced or granted on certain accepted criteria. It is quite possible that the automatic effects of productivity changes may influence some of these criteria, and there may, after all, be a link between the increase in productivity and the rise in money incomes. The question immediately arises whether, in the light of such a link, the assumptions of the model as to the course of money incomes are unduly pessimistic and calculated to produce a balance of payments difficulty for the countries which lag behind. In other words, is there any reason to expect money wages to rise proportionately faster in countries with a rapid rate of increase of productivity than in countries with a slow rate?

The evidence indicates that rather the reverse is true. In the first place, Professor Kerr has shown that the most important influence on the wage setting process is likely to pull money wages and productivity in opposite directions. This influence is the indirect linkage between productivity and money wages through prices. One of the most important criteria on which wage increases are granted are upward changes in the cost of living. Rising productivity tends to

1 In those two years, there were no significant variations in the exchange rate for the Swedish kronor.
reduce prices. "To the extent that changes in prices and man-hour output tend to have an inverse relationship to each other, so also will wages and man-hour output. For changes in wage rates in the short-run conform much more positively to changes in the cost of living than to changes in productivity or profits. This is true of both organised and unorganised labour markets, and for both negotiation and arbitration in the latter case."

In the second place, it is generally accepted that there is an inverse relation between the level of money wages and the rate of employment: the lower the rate of unemployment, the higher money wages are likely to be. At least one kind of unemployment, namely technological unemployment, is likely to be more widespread in the country with the fastest rate of increase of productivity, i.e. country A. It follows, therefore, that, other things being equal, on a price-cost basis, the competitive position of A will be strengthened somewhat more than was indicated in the model under the assumption that money wages tended to rise at proportionately the same rate in all countries.

It remains true, however, that productivity rates are only one of the factors which determine a country's competitive position in the world economy. With given exchange rates, her position is rather determined by the ratio between her productivity and her money wage rates. As Laursen points out, "while it is true that productivity growth differentials are important in determining trade and balance of payments patterns, actual wage movements are often the major determining factor." Tables 14 and 15 abundantly confirmed this conclusion; year to year and period to period fluctuations in the rate of increase of productivity were often dwarfed by fluctuations in the

1 ibid. p. 305.
2 Laursen, op. cit., p. 186.
rate of increase of money wages.

Thus in any realistic appraisal of the balance of payments prospects of a country, the probable course of money incomes is a factor which must be taken into account. The problems here were studied under two alternative assumptions which appeared reasonable in the light of general considerations, and of the nature of the wage setting process in western countries. It was assumed, firstly, that money incomes remained constant, or, what is the same thing, rose at the same rate in all countries; secondly, it was assumed that money incomes rose with average productivity in each country. The evidence so far given indicates that the former assumption is the most probable; and this assumption is the one least favourable to countries with a slow rate of growth. But neither version of the assumption actually fits at all closely the statistical evidence; this is to be expected. For, as money incomes are determined by national policies, they can, in theory, follow any conceivable course.

Thus when money wages are not assumed to be given, payment problems which emerge may be attributed either to disparate and biased rates of productivity growth, or alternatively to mistaken wage policies at home or in some important centre abroad. Given the fact that an appropriate wage policy can offset the effects of changes in productivity, the question is whether it really makes sense to talk of payments difficulties as being caused by differential rates of progress. This view overlooks one important consideration: in practice the flexibility of money incomes is far short of infinite. Table 13 showed that money wages actually declined only in years of severe unemployment; between 1934 and 1948 hourly earnings registered an increase in every year without exception.
Under conditions of full employment money wages are not flexible. The commitment to full employment deprived governments of one method of adjustment to external problems. Although the amount of periodic unemployment which occurred under the old gold standard is often exaggerated, it does remain broadly true that under pre-1914 conditions deflation and unemployment were, in the last resort, acceptable modes of adjustment.

In the post-war period such methods of dealing with balance of payments difficulties are not possible. As F. Machlup points out, "our present institutions—collective bargaining between strong trade unions and large corporations, plus cost of living wage adjustments, plus full employment policy, plus the elasticity of credit supply that must go with it—are arranged not to permit reductions in real wages".  

One should hasten to say that they are also arranged so as not to permit a reduction in money wages. Full employment has introduced a new element into the situation; a national government is not, as a rule, in a position to reduce wage rates as and when the external position of the country demands it. The only flexibility which remains is flexibility upwards.

However, this argument does not quite prove that governments with a slow rate of productivity are completely helpless in the face of inflexible money incomes. As has often been pointed out, the assumption that productivity increases in A, while in B, C and D it

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2 A national government can still reduce the foreign currency content of money wages by devaluing its currency. But such a policy implies a deterioration in the terms of trade, and a reduction in real wages which is recognised as unacceptable to trade unions. The improvement in the country's balance of payments which this method affords will be short-lived as money wages tend to rise in sympathy with prices.
remains stationary may lead to some unwarranted inferences.¹ Productivity growth rates of 3% in A and 1.5% in B do not yield the same results as 1.5% in A and 0% in B. If productivity in B rises, even though not as fast as in A, money incomes and wages can be allowed to rise, provided that they do not rise as fast as productivity. As there need be no decline in B's money incomes but only a slowing down of the rate of increase, there is scope for the financial policy of B's government to operate with a view to maintaining balanced payments relations between B and the outside world by varying the rate at which wages are allowed to rise. This argument, however, is based on the assumption that in countries with a rapid rate of growth money wages rise by the full extent of productivity increases, whereas in countries with a slow rate they rise less than productivity increases. Nothing in the analysis and the evidence presented indicates that money incomes are likely to follow this desirable course.

One final point should be briefly raised. It is often held that a proper balance of payments will be maintained when money wages in each industry reflect productivity, not in the whole economy, but in that industry. This case was not examined; but it is possible that under such an assumption some balance of payments difficulties may be avoided. The question is whether in the context of a concrete situation the assumption of wage increase in each industry linked to productivity in that industry is more realistic than the assumption made in the model, i.e. that money wages tend to rise with

¹ Hicks, op.cit., pp.123-4. This assumption enables Hicks to conclude that in the import-biased case an absolute decline in the standard of living in countries with a low rate of productivity increase is inevitable.
average productivity in the country. In the U.K., at least, the method by which wage claims are advanced or granted makes this highly improbable. The size of each award of a wage increase in one industry sets the pattern for wage awards in other industries; considerations of divergent increases in productivity in two groups of industries are given little weight. In any case, wage claims are usually put forward before any statistics on the increase in productivity in an industry are available; they are based on factors which affect workers in all industries to the same extent, for example, changes in the cost of living.

The third assumption in the theoretical analysis was that a fall in productivity tended to raise and an increase to lower the price level. Given that money incomes remain constant and that no other factors besides productivity influence the price level, this assumption is, of course, self-evident. Its relevance to concrete situations and, in particular, to the economic environment of the post-war period may, however, be disputed. Many economists, including P.D. Henderson have argued that a rise in productivity is unlikely to reduce prices substantially.

In an extreme form, this assertion is absolutely unrealistic. It would imply a constant price level. As P. Streeten points out, "a rise in money incomes sufficiently rapid and large to enable (relative) prices to remain stable is most unlikely. The rise and the expenditure of money incomes would have to be simultaneous with the rise in productivity. Hence, complete absence of price effects can be ruled out."

Moreover, in the context of a discussion of balance of payments problems, there is a very good reason for expecting rising productivity to lower a country's price level appreciably. The price level relevant here is not one defined in absolute terms but in relation to the price levels ruling in other countries. Therefore, even though prices in a country do not fall absolutely as a result of increased productivity, it is extremely likely, in the face of universal rising wage trends, that they will remain stationary or rise less than in countries in which productivity has not risen so fast.

The fourth assumption was that the chief factor determining total production and the level of real income was the rate of increase of productivity. The importance and relevance of this assumption are obvious. If increases in real income did not correspond to increases in productivity, but were chiefly determined by other factors, the operation of the real income effect in the theoretical analysis would be haphazard and unpredictable; it would then be impossible to study the real income effects of productivity with any degree of confidence.

This assumption represents a fairly close approximation to reality. It is obvious that this must be so under conditions similar to those prevailing in the post-war period, i.e. under conditions of full employment. By definition, under such circumstances, total output cannot be increased by an increase in manpower; and the limits of an increase in hours worked per head of the population are fairly well defined. Statistics unfortunately are not always available in a strictly comparable form; but Table 16 sets out, for the U.S. and the U.K., changes in labour productivity in the manufacturing industry against changes in the volume of industrial production. In both countries movements in the two indexes in the period 1947-52 were roughly comparable.
Table 16.

<table>
<thead>
<tr>
<th></th>
<th>1946</th>
<th>1947-50</th>
<th>1951</th>
<th>1952^a</th>
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<td></td>
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<td></td>
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<tr>
<td>Productivity Index</td>
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<td>123</td>
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<td>140</td>
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<td>170</td>
<td>190</td>
<td>220</td>
<td>213</td>
</tr>
<tr>
<td>United Kingdom:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Productivity Index</td>
<td>95</td>
<td>110</td>
<td>116</td>
<td>112</td>
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<tr>
<td>Volume of Industrial Production</td>
<td>96</td>
<td>115</td>
<td>132</td>
<td>128</td>
</tr>
</tbody>
</table>

^a—Estimated on 11 months for full year.

Source: G. Hutton, We Too Can Prosper, 1953, Appendix A.

For the inter-war period, year to year figures of output per man-hour are only available for the U.S.; they are set out in Table 17, together with changes in the index of the volume of production, employment and output per head. In the 'twenties, output per man-hour was probably the most significant factor influencing the volume of production; during the depression years, however, changes in the level of employment became the dominant influence; in the years 1930-34 the employment index declined by between 20% and 30% compared with the 'twenties. The small increase in output per head, therefore, was completely dwarfed by the decrease in employment. However, this does not mean that in practice the large changes in employment invalidate the conclusions of the theoretical analysis. For what matters is the effect of employment fluctuations on the level of U.S. production relatively to production in other countries; and in the 'thirties
### Table 17.

Indexes of Volume of Production, Employment, Output per Head and Output per Man-Hour in the United States Manufacturing Industry; 1924-39.

(1924=100.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume of Production</th>
<th>Employment</th>
<th>Output Per Head</th>
<th>Output Per Man-Hour</th>
</tr>
</thead>
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<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<td>1925</td>
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<tr>
<td>1939</td>
<td>141</td>
<td>104</td>
<td>136</td>
<td>166</td>
</tr>
</tbody>
</table>

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a--Mining not included in indexes.


Fluctuations in the level of U.S. employment were positively correlated with fluctuations in employment in Britain and other industrial countries. Thus this factor tended to leave the relative position unchanged.

An objection of a different kind has been raised against treating increasing productivity and increasing real incomes as more or
Production is transformed into consumption partly through international trade. Unless exports can be expanded without worsening the terms of trade, an increase in productivity will lead to a less than proportionate increase in real income. "If the price elasticities of demand for exports and imports are relatively low, the gain in real income from an increase in productivity may be relatively small; and if the price elasticities decrease as the terms of trade turn against the country there will be a definite limit to the increase in real income attainable by increasing productivity. In the context of a growing world economy, the inference is that a country may increase its rate of growth of real income very little through an increase in the rate of growth of productivity relatively to the rest of the world."  

Certain statistical investigations appear to suggest that these considerations were applicable to the British experience during the inter-war and post-war periods. Mr Marris found an inverse association between the volume of U.K. exports and the U.K. terms of trade. When the volume of British exports increased, Britain had to pay, in terms of exports, relatively more for each unit of imports. His analysis was intended to show a relationship of cause and effect between the volume of U.K. exports and the British terms of trade.  

These arguments raise two problems. First, there is the question of the correctness of the interpretation which Marris places on his statistical findings. Professor Cairncross, very correctly, points out that if there is any causal connection between the two things it is in the opposite direction to that assumed by Marris. Britain's export markets lie mainly in primary producing countries: "When food-

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stuffs and raw materials fetch high prices these markets of ours are prosperous and increase their purchases; that means that we simultaneously have to pay high prices for our imports and enjoy expanding markets for our exports....We do not reduce our prices in order to sell more; we find that when our export prices are low in relation to what we are obliged to pay for our imports, our exports are in great demand.¹

Secondly, arguments of this kind do not invalidate the conclusions of this analysis. However much a country may be dependent on external trade, it is unthinkable to imply that the positive contribution of a rapid rate of productivity growth to real income is small. Moreover, in the model the terms of trade effect was taken into account when it was thought to be most important; in the export-biassed case, it was assumed that a large share of the benefits of a rapid rate of growth in A was reaped by A's customers; the real income of B, C and D increased as a result of their improved terms of trade with A.

The fifth assumption distinguished between domestic, import-competing and export goods. As an analytical device, this assumption raises no objections. But, over a period of time, there may be some difficulty in classifying goods by this criterion; for some goods will tend to move from one category to another. Indeed, this will be a natural result of unequal rates of productivity growth in different industries within a single country. Such changes also presuppose an elastic supply. However, practical difficulties of this kind in no way affect the actual functioning of the mechanism through which changes in productivity influence the balance of payments.²

² See also page 111 et seq. below.
The final assumption, i.e. that of a four-country world, was primarily intended to show that a fast rate of increase of productivity in country A may affect countries B, C and D in different ways. A two-country model is, by definition, incapable of taking account of such differential effects. Thus, a two-country analysis, while it may be useful for the study of the effects of a rapid growth of productivity in country A on the rest of the world as a whole, can throw relatively little light on the effects of such growth on a particular country B.

There is also a difficulty in applying a two-country model to concrete situations. As F. Machlup points out, "if B is Britain and A is America, the rest of the world is conspicuous by its absence. As a way out one might expand A to include the rest of the world, but then the hypothesis of a faster growth of productivity in A would surely be out of place." No difficulties of this kind arise in connection with a four-country model. In the preceding analysis, A was intended to stand for the United States, B for the United Kingdom, C for countries like Malaya and most members of the British Commonwealth in Africa and D for countries like Argentina and New Zealand. The only group of countries which are not mentioned are those with economies competitive with that of the U.K. and of the U.S., i.e., chiefly countries in Western Europe. However, if this thesis had been chiefly concerned with the external problems of Western Europe, B could easily have been made to include Continental Western Europe as well as the U.K.

1 Machlup, op.cit.,p.261. This difficulty, of course, only arises when one wants to study the effects of a rapid rate of growth in the U.S. on a particular country. When the effects of American growth on the rest of the world as a whole are considered, then, naturally, A stands for the former and B for the latter.
Other Effects of a Rapid Increase in Productivity.

The real income and price-substitution effects are inherent in a change in the rate of increase of productivity. Other effects may also be present; they can affect a country's balance of payments either directly or indirectly by modifying the operation of the real income and price substitution effects.

The first of these effects may be termed the leisure effect.\(^1\) If people in country A tend to take the benefits of increased productivity in the form of increased leisure, then, from the point of view of economic welfare, they will still be better off than before, but the country's balance of payments will tend to remain unaffected because neither a price substitution effect nor an income effect will be in operation. Thus, insofar as the leisure effect is in operation, the forces making for the maintenance of the status quo in international payments relations will be stronger.

The possibilities of adjustment through the operation of the leisure effect are potentially great. In retrospect, one may wonder whether the post-war dollar unbalance would have been so large had the American attitude to work been different. It is not improbable that in the future Americans may place less importance on increased earnings and more on leisure; a time may come when the benefits which a rising productivity confers are reaped chiefly in the form of more leisure or in the form of non-marketable recreations.

A second factor is often described as the demonstration effect. Economists who reject any other adverse effects on a country's international payments position will usually admit that a country may suffer from a tendency to live beyond her means by trying to copy

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\(^1\) See also, Streeten, op.cit., p.13.
the standard of living of a more progressive country—a standard of living which her own productive resources cannot support. Thus Laursen concludes that the argument that "differences in national rates of productivity growth lead to a persistent imbalance in the world economy is not a very impressive one", but, he concedes, "one general tendency associated with productivity growth has worked in the opposite direction: the demonstration effect."\(^1\) The demonstration or "film" effect also finds some favour with Sir Donald MacDougall\(^2\); the tendency in other countries to emulate the United States gives rise to inflationary pressures which in turn lead to payments difficulties.

It is difficult to estimate the significance of this effect for different countries. On the whole, it is likely to be more important for country B than for country C and D. For B has an economy similar to A and it is more natural for people in B than for people in C and D to compare their own standard of living with that of A.

An unqualified acceptance of the influence of the demonstration effect on the balance of payments is unwarranted. In the first place, there does not appear to be any close correlation between the proximity of a country to the U.S. and the state of her balance of payments; whereas, if the demonstration effect was a dominant factor, one would expect a country's payments position to deteriorate with her proximity, geographical or cultural, to the United States.

In the second place, the argument in favour of a demonstration effect fails to draw a rather important distinction between the rate at which productivity is increasing and the absolute level of productivity. People in countries with a slow rate of productivity growth

\(^{1}\) Laursen, op.cit., p.187.
\(^{2}\) A Lecture on the Dollar Problem, In Economica, August 1954, pp. 190-1.
are more likely to be impressed and more likely to try to emulate an absolutely high standard of living rather than a rapidly rising one. These two factors may not go together: even though productivity in country A is rising faster than in country B, it is possible that for many years to come, because of a past accumulation of wealth B will enjoy a higher standard of living than A. In any case, absolute discrepancies in the standard of living of different countries were very much larger in, for example, the 19th century, and yet there were no persistent payments disequilibria.¹

The third, and by far the most important, effect is the production of new goods. A progressive economy, by its very dynamism, is likely to be in the lead in developing new products. Many economists appear to attribute an almost unique importance to this effect. T. Balogh, for instance, argues that "American progress seems multidimensional, and the capacity of cutting prices is not even its most important consequence.... The emergence of new and coveted products might diminish demand for a wide circle of other commodities and not only of their immediate substitutes."² To put the same thing in the words of another economist, "progress renders some imports obsolete."³

The balance of payments repercussions of the development of new goods are not very much unlike the effects of the more efficient production of old goods. The production of new goods may be regarded as an instance in which the rate of increase of productivity is infinite: new goods will tend to be at the same time both import-substitutes and export goods. As import-substitutes, they will replace some

¹ On the other hand, it may be contended that opportunities today of observing a high standard of living in other countries are infinitely greater than they were in the 19th century.
² Balogh, The Dollar Crisis Revisited, op.cit.
³ Streeten, op.cit., p.17.
imports; but as export goods, it is by no means certain that the
effects of the development of new products will be altogether fa-
vourable to the country which pioneers the change. A country's
progress may equally well render her own exports obsolete and thus
adversely affect her balance of payments. The development of syn-
thetic materials is a case in point. The decline in the U.S. im-
ports of silk is chiefly attributable to the development of compe-
ting synthetic fibres. But the same development of synthetic tex-
tile materials had also an unfavourable effect on the U.S. balance
of payments because of its adverse effects on international demand
for raw cotton.

In the general case, however, the balance of payments of the
country which develops a new product will tend to improve. The
two favourable effects, i.e. the displacement of some imports and
the actual exports of the new product, are unlikely to be offset by
the unfavourable effect of a loss of exports of traditional goods.
In fact, the country which develops a new product cannot possibly
suffer a net deterioration in her balance of payments before a con-
siderable period of time has elapsed, i.e. before foreign countries
themselves begin to produce the new good.

1 See Henderson, Some Comments, op.cit., p.72.
CHAPTER 4. SURVEY OF STATISTICAL EVIDENCE.

Introductory Remarks.

In the following pages an attempt is made to review some of the statistical evidence relating to the rate\(^1\) of increase of productivity in the United States, the United Kingdom and, in very much less detail, in some other important countries.

Dollar payments difficulties, in one form or another, have persisted for a very long period of time. This factor, more than any other, lends plausibility to a structural interpretation of the dollar problem of the post-war period. Many economists, including Hicks, Robertson, Williams and Balogh, think it appropriate to consider the post-war dollar unbalance in the light of the experience of the 'twenties and 'thirties. Properly understood, claims Professor Hicks, the post-war dollar problem fits into its place as an episode in a wider evolution.\(^2\) Again, according to Professor Williams, "the successive short-run crises have been primarily the symptoms of longer term and deeper seated maladjustments in international relationships that go back for at least three-quarters of a century."\(^3\)

Theoretically long-term changes in productivity growth are the factors most relevant to a structural interpretation of the dollar problem. In practice, over a long period of time, it is impossible to trace the ways in which differential rates of productivity growth tend to make for disequilibrium in international payments. Changes in the industrial structure and the development of new industries

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1 The analysis of the preceding chapter referred to proportional increases in productivity. There can be little doubt that absolute increases in industrial production are very much larger in the U.S. than in the U.K. The size of the American economy probably has important balance of payments implications for other countries; but these implications are not considered here. It follows that the earlier analysis was more complete in respect of British and U.S. industries of a roughly comparable size.

2 Hicks, op.cit., p.131.

make comparisons between the rates of increase of productivity in different countries over a long period of time very difficult to interpret. Thus a structural interpretation of the dollar shortage based on long-term influences is, to some extent, in the nature of an informed guess.

A statistical survey is made necessary by the absence of any conclusive theoretical considerations indicating that productivity must rise faster in the U.S. than in the U.K. and the rest of the world. In absolute terms, real income per head of the population is very much higher in the U.S. than in the rest of the world. The proportion of income saved will tend, therefore, to be higher in the U.S.; and insofar as a rising productivity is the result of higher investment, productivity in the U.S. will tend to increase faster than productivity in the rest of the world. But this argument is not conclusive mainly because the rate at which investment expands is not the only determinant of the rate of increase of productivity.\(^2\)

**Rate of Increase of Productivity in the U.S. and the Rest of the World.**

It was originally intended to confine the comparison to the U.S. and the U.K., but two recently published articles\(^3\) seem to question

1 Assuming that the distribution of income in the U.S. and the rest of the world is similar.

2 Also because a lower ratio of savings to income in a country outside the U.S. might be offset by a lower ratio of capital to income so that the rate of increase in national capital in the two countries is approximately the same. See, G.D.A. MacDougall, Does Productivity Rise Faster in the United States? In Review of Economics and Statistics, May 1956, p.175.

the generally accepted view that productivity rises faster in the U.S. than in the rest of the world. Since a general dollar problem, as distinct from a British dollar problem, is dependent on a faster rate of productivity growth in the U.S. than in the rest of the world, this view must be challenged. Both writers base their conclusions on the rates of increase of productivity during peacetime years. It is quite legitimate to attempt to show that productivity rose at a different rate during the peacetime years from the years of the two world wars. It is not legitimate to imply, for instance, that in the period 1945-55 productivity in the U.S. would have risen at the same rate as it actually did, if the very fast increase in American productivity during the war years had not taken place. If any period is omitted, the overall picture becomes completely distorted.

In any case, "normal" peacetime years appear to include the depression period of the 'thirties during which unemployment and stagnation were more prolonged in the U.S. than in the rest of the world.

When an attempt is made to offer an explanation of the long-term dollar problem\(^1\), there is no alternative to treating the period in question as a whole. If this proposition is accepted, there is nothing in the statistical evidence presented by MacDougall to contradict the generally accepted view that American productivity rises faster than productivity in the rest of the world. His calculations show\(^2\) that between either 1900 and 1953 or 1913 and 1953 physical

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\(^1\) To be fair, MacDougall does state explicitly that his conclusions should not be taken to imply that there is, or is not, a long-run dollar problem. op.cit., p.155.

\(^2\) op.cit., p.160. MacDougall's figures also show (p.163) that the decline in hours of work in the same period was greater in the U.S. than elsewhere, so that output per head tended to underestimate the increase in productivity in the U.S.
output per head of the population rose very much faster in the U.S. than in the rest of the world.

A similar picture emerges when the evidence presented by Colin Clark is examined. The percentage increase in output per man-hour between the beginning of the 20th century and 1938 in a number of important countries is set out in Table 18.

Table 18.

Long-Term Changes in Real Product Per Man-Hour. (%)

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage Increase Between Pre-1914-1938</th>
<th>Pre-1914-1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>433</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>100</td>
<td>134</td>
</tr>
<tr>
<td>Sweden</td>
<td>97</td>
<td>99</td>
</tr>
<tr>
<td>France</td>
<td>84</td>
<td>93</td>
</tr>
<tr>
<td>Australia</td>
<td>70</td>
<td>73</td>
</tr>
<tr>
<td>New Zealand</td>
<td>67</td>
<td>93</td>
</tr>
<tr>
<td>Germany</td>
<td>64</td>
<td>61</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>59</td>
<td>51</td>
</tr>
<tr>
<td>Italy</td>
<td>51</td>
<td>26</td>
</tr>
<tr>
<td>Canada</td>
<td>26</td>
<td>77</td>
</tr>
</tbody>
</table>

Note: Clark's calculations are made in terms of "International Units"; they are defined as "the quantities of commodities exchangeable for one dollar in the U.S.A. over the average period 1925-34." a--Where possible average for the first decade of the 20th century. Exact references are as follows: Japan 1908; U.S. ave.1904-13; Sweden ave.1904-10; France ave.1900-09; Australia ave.1901-03; New Zealand 1901; Germany ave. 1904-10; U.K. ave.1904-10; Italy 1901; Canada 1903


Real income per man-hour during the period rose faster in the U.S. than in any other country shown in Table 18. (With the sole
exception of Japan, which in 1908 had a very low real product.) Between the beginning of the 20th century and 1938, the American increase was very much more substantial than the increase in real product per man-hour in the two most important countries in Western Europe, namely the U.K. and Germany. The table does not include any of the so-called under-developed countries. But if countries like India were included the picture which would emerge is likely to be even more favourable to the U.S.¹

However, even during the inter-war period, output per man-hour in manufacturing rose faster in the U.S. than in Canada and all important industrial countries in Western Europe. Between 1924 and 1937 it rose by 2.8% per annum in the U.S., by 2.2% per annum in Germany, by 2.0% per annum in Canada and by 1.7% per annum in the U.K.; judging from incomplete data, it also rose faster in the U.S. than in France or Italy.² It is true that in a number of other countries output per man-hour in manufacturing rose more rapidly than in the U.S.; but these countries accounted for a relatively small part of world production of manufactures. Moreover, the actual period selected for comparison underestimates the American performance; for it does not take account of the large increases in output per man-hour in the American manufacturing industry which took place from 1920 to 1924 and from 1935 to 1939.³ Thus the evidence does not support the view held by some economists⁴ that during

¹ MacDougall admits that the general impression that productivity in underdeveloped countries has risen considerably more slowly than in the U.S. may be correct.
² MacDougall, op.cit., p.169.
³ See Clark, op.cit. p.266; and Rostas, Comparative Productivity in British and American Industry, op.cit., p.46.
⁴ For instance, by Letiche, op.cit., pp.377, 399.
the inter-war period the U.K. was the only important Western European country with a slower rate of productivity growth in manufacturing than that obtaining in the U.S.

Between 1938 and the late post-war period productivity has, of course, risen very much faster in the U.S. than in other countries.

Table 19.
Volume Indices of Gross National Product Per Head of the Population, 1938, 1948 and 1952. (1938-100.)

<table>
<thead>
<tr>
<th></th>
<th>1938</th>
<th>1948</th>
<th>1952</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>100</td>
<td>151</td>
<td>171</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>100</td>
<td>107</td>
<td>114</td>
</tr>
<tr>
<td>All OECD Countries</td>
<td>100</td>
<td>97</td>
<td>110</td>
</tr>
</tbody>
</table>


Between 1938 and 1952 real national product per head of the population rose by about 70% in the U.S., by 14% in the U.K. and by 10% in all OECD countries.

During the post-war period output per man-hour in the manufacturing industry rose faster in Western Europe as a whole (though not in the U.K.) than in the U.S. (See Table 20.) But this faster rate should be viewed not in isolation, but against the very much larger increase in American productivity between 1938 and the post-war years. It should also not be forgotten that even by 1948, output per man-year in industry in most Western European countries was substantially lower than it had been in the period 1935-38; in Germany it was less than two-thirds and in Italy about four-fifths of its 1935-38 level. Thus

1 Economic Bulletin for Europe, Second Quarter 1949. See Table 15 (second part) on page 85 above.
much of the post-war increase in output per man-hour in the Western European manufacturing industry represented a recovery to the pre-war level. If an overall conclusion on the rate of increase in productivity in the U.S. and the rest of the world during the post-war period is desired, the performance of agriculture must also be taken into account. According to MacDougall's, during the post-war period output per person engaged in agriculture rose faster in the U.S. than in the less developed countries, but probably no faster than in Canada and Western Europe.

Table 20.

<table>
<thead>
<tr>
<th>Year</th>
<th>United States</th>
<th>United Kingdom</th>
<th>All OEEC Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948</td>
<td>90</td>
<td>91</td>
<td>87</td>
</tr>
<tr>
<td>1949</td>
<td>94</td>
<td>96</td>
<td>95</td>
</tr>
<tr>
<td>1950</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1951</td>
<td>99</td>
<td>101</td>
<td>106</td>
</tr>
<tr>
<td>1952</td>
<td>101</td>
<td>98</td>
<td>107</td>
</tr>
<tr>
<td>1953</td>
<td>104</td>
<td>102</td>
<td>111</td>
</tr>
<tr>
<td>1954</td>
<td>107</td>
<td>107</td>
<td>116</td>
</tr>
<tr>
<td>1955</td>
<td>112</td>
<td>110</td>
<td>124</td>
</tr>
</tbody>
</table>

a--The figures generally make no allowance for changes in the length of paid holidays.
b--Provisional.

Source: G.D.A. MacDougall, op.cit., p.170

British and American Productivity in Manufacturing.

In the period extending from the beginning of the 20th century to the late 'thirties, productivity in the manufacturing industry...
increased more slowly in the U.K. than in the U.S. In manufacturing, mining, building and public utilities in the 30 year period 1907-37, output per wage earner rose by 47% in the U.K. and 71% in the U.S. The position is even more favourable to the U.S. when output per man-hour is considered. In the same period, output per man-hour rose by 65% in the U.K. and 133% in the U.S. Thus, between 1907 and 1937, the rate of increase in output per man-hour was 1.7% per annum in the U.K. and 2.9% in the U.S. If the thirty year span is divided into two sub-periods, i.e. from 1907 to 1924 and from 1924 to 1937, the picture which emerges is only slightly different. (See Table 21.) During the inter-war period, output per wage-earner rose faster in the U.K. than in the U.S.; but output per man-hour in the U.K., though rising faster than in the period 1907-24, did not increase as rapidly as output per man-hour in the U.S.

Table 21.


<table>
<thead>
<tr>
<th>Annual Rate of Increase Between</th>
<th>U.S. Output Per Wage-Earner</th>
<th>U.K. Output Per Wage-Earner</th>
<th>U.S. Output Per Man-Hour</th>
<th>U.K. Output Per Man-Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1907-1937</td>
<td>1.8</td>
<td>1.4</td>
<td>2.9</td>
<td>1.7</td>
</tr>
<tr>
<td>1907-1924</td>
<td>1.8</td>
<td>0.5</td>
<td>2.8</td>
<td>1.4</td>
</tr>
<tr>
<td>1924-1937</td>
<td>1.8</td>
<td>2.4</td>
<td>3.0</td>
<td>2.1</td>
</tr>
</tbody>
</table>


For the manufacturing industry proper estimates by Colin Clark confirm the view that over the thirty years or so prior to the Second

1 L. Rostas, op. cit., p.42.
World War output per man-hour rose faster in the U.S. than in the U.K. His evidence indicates that between 1907 and 1937 output per man-hour in manufacturing rose by 153% in the U.S. and by 101% in the U.K.¹

Some estimates of the increase in productivity in manufacturing in the U.K. and the U.S. during the Inter-war period have already been given.² Consideration of the evidence of Rostas and Clark leaves the picture unchanged. According to Rostas, between 1924 and 1938 output per man-hour in manufacturing rose by 25% in the U.K. and by 51% in the U.S.; Clark's estimates show an increase of 37% for the U.K. and 66% for the U.S. Thus during the period American productivity increased about twice as fast as that of the United Kingdom.

In individual industries productivity growth was probably faster in the U.S. than in the U.K. All available information relating to changes in output per man-hour between 1907 and 1935 in the U.K., and between 1909 and 1935 in the U.S., suggests that there was no single main industry group in which the rate of increase of output per man-hour was slower in the U.S. than in the U.K.³ For the period 1924 to 1935, however, output per man-hour in certain important industrial subgroups rose faster in the U.K. than in the U.S.; this was particularly true of the cement and rubber industries. On the other hand, during the same period, output per man-hour increased at a faster rate in the U.S. than the U.K. in most industries studied by Rostas, including the motor, steel rolling, and the woolen and worsted industries.

¹ Clark, op.cit., pp.266, 269. For the U.K. the comparison is between the average for 1904-10 and 1937.
² See above, page 106.
³ Rostas, op.cit., p.46.
The Pattern of Productivity Increases.

In the analysis presented in Chapter 3 it was contended that Britain and other industrial countries in Western Europe were more likely to be faced with balance of payments difficulties when increases in productivity were concentrated in American export industries. Is there any indication that the rate of increase of productivity was not uniform for all industries?

There are many practical difficulties in classifying industries or goods according to whether they are domestic, import-competing or export ones. These difficulties are generally confined to the two latter categories. The purely domestic industries are easily identifiable; they are industries like gas, electricity and public utility undertakings, producing goods which normally do not enter into international trade. The practical distinction between import-competing and export industries is much less easy to define. One difficulty is that over a period of time some goods will tend to move from one category to the other.¹ Another difficulty is due to the fact that some industries can be regarded as export and as import-competing ones at the same time. This problem arises in an acute form when one is forced by the lack of detailed statistical information to consider changes in productivity in very broad industrial groups. Take, for instance, changes in productivity in American agriculture considered as a whole. A large part of the output of American agriculture is exported; on this account agriculture in the U.S. is rightly considered as an export industry. But at the same time, the U.S. imports very substantial quantities of agricultural commodities; she is, in fact, not a net exporter, but a net importer of primary products. Thus, agriculture in the U.S. can

¹ See above, page 96.
be regarded as an industry producing commodities competitive with imports.

The argument that the dollar payments difficulties of the rest of the world are due to a relative decline in agricultural productivity in the U.S. over the last thirty or forty years is a very equivocal one. Professor Hicks, regarding agriculture in the U.S. as an export-industry, contended that import-biased increases in productivity in the U.S. (i.e. in non-agricultural industries) lay at the foot of the balance of payments difficulties of the non-dollar world. Before one could pronounce judgement, one would have to know in which branches of agriculture the rate of increase of productivity is considered to be relatively slow; for certain branches of American agriculture produce not export, but import competing commodities.

Even at its own level, however, the Hicksian argument is not substantiated by the available statistical evidence. Table 22 sets out the rate of increase of productivity in agriculture and non-

---

1 Hicks suggests that import-biased increases in productivity in the U.S. are most likely to result in balance of payments difficulties in other countries is not necessarily contradictory to the opinion expressed here that an export-bias in the American rate of increase is most likely to affect adversely the balance of payments of the U.K. For (1) Hicks' argument is in terms of a two-country world. Hicks, however, when discussing the implications of his theoretical analysis, seems to switch from a two-country model to a many-country one by suggesting that the main source of difficulty is that productivity did not increase as rapidly in U.S. industries supplying Britain with imports as in American industries competing with British exports. (2) Secondly, Hicks is primarily concerned with 'real' balance of payments difficulties, i.e. with those which will necessitate a decline in the standard of living of the less progressive countries. On the other hand, in Chapter 3 of this thesis no distinction was drawn between 'real' and 'monetary' balance of payments difficulties resulting from differential rates of productivity growth. For, it has been contended that there is no evidence to indicate that financial policy can and will always be modified in such a way as to prevent all but 'real' balance of payments difficulties. The power of adjustment of the economic system is not infinitely great.
agricultural employment in the U.S., between 1910 and the post-war period. Since before the First World War, productivity in agriculture has increased as much as productivity in other industries; and since before the Second World War the increase in agricultural productivity has been in excess of the increase in productivity in non-agricultural industry.

Table 22.

Index of Productivity in Agricultural and NON-Agricultural Employment in the U.S.

<table>
<thead>
<tr>
<th>Year</th>
<th>Agricultural</th>
<th>Private Non-Agricultural</th>
<th>Agricultural</th>
<th>Private Non-Agricultural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946</td>
<td>165.9</td>
<td>187.4</td>
<td>130.8</td>
<td>118.7</td>
</tr>
<tr>
<td>1947</td>
<td>164.8</td>
<td>183.9</td>
<td>129.9</td>
<td>116.6</td>
</tr>
<tr>
<td>1948</td>
<td>190.8</td>
<td>190.6</td>
<td>150.4</td>
<td>120.8</td>
</tr>
<tr>
<td>1949</td>
<td>190.2</td>
<td>197.9</td>
<td>150.0</td>
<td>125.4</td>
</tr>
<tr>
<td>1950</td>
<td>216.6</td>
<td>209.8</td>
<td>170.8</td>
<td>133.0</td>
</tr>
<tr>
<td>1951</td>
<td>200.5</td>
<td>211.8</td>
<td>158.1</td>
<td>134.2</td>
</tr>
<tr>
<td>1952</td>
<td>205.7</td>
<td>217.3</td>
<td>162.2</td>
<td>137.7</td>
</tr>
<tr>
<td>1953</td>
<td>217.1</td>
<td>224.0</td>
<td>171.2</td>
<td>141.9</td>
</tr>
</tbody>
</table>


To obtain a somewhat clearer picture of the pattern of productivity increases in the U.S., one must examine the available data in terms of narrower industrial groups. What evidence there is suggests that the rate of increase in productivity does not tend to be more rapid in import-competing industries than in the other sectors of the
economy. Table 23 sets out changes in output per man-hour, or output per worker, in some important industries in the U.S. over the period 1909 to 1939. If anything, the figures indicate that productivity has risen fastest in industries which exported a large part of

<table>
<thead>
<tr>
<th>Industry</th>
<th>1909</th>
<th>1923</th>
<th>1929</th>
<th>1939</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>24</td>
<td>45</td>
<td>77</td>
<td>122</td>
</tr>
<tr>
<td>Vehicles</td>
<td>28</td>
<td>83</td>
<td>115</td>
<td>94</td>
</tr>
<tr>
<td>Petroleum and Coal Products</td>
<td>38</td>
<td>67</td>
<td>101</td>
<td>130</td>
</tr>
<tr>
<td>Chemicals</td>
<td>55</td>
<td>73</td>
<td>98</td>
<td>125</td>
</tr>
<tr>
<td>Printing and Publishing</td>
<td>47</td>
<td>84</td>
<td>98</td>
<td>103</td>
</tr>
<tr>
<td>Paper</td>
<td>56</td>
<td>70</td>
<td>99</td>
<td>116</td>
</tr>
<tr>
<td>Textiles and Clothing</td>
<td>71</td>
<td>81</td>
<td>99</td>
<td>111</td>
</tr>
<tr>
<td>Food</td>
<td>81</td>
<td>96</td>
<td>110</td>
<td>116</td>
</tr>
<tr>
<td>Leather</td>
<td>83</td>
<td>85</td>
<td>98</td>
<td>104</td>
</tr>
<tr>
<td>Iron and Steel</td>
<td>88</td>
<td>112</td>
<td>133</td>
<td>119</td>
</tr>
<tr>
<td>Rubber</td>
<td>--</td>
<td>76</td>
<td>97</td>
<td>115</td>
</tr>
<tr>
<td>Mines and Quarries</td>
<td>--</td>
<td>91</td>
<td>105</td>
<td>119</td>
</tr>
<tr>
<td>Non-Ferrous Metals</td>
<td>--</td>
<td>--</td>
<td>128</td>
<td>119</td>
</tr>
<tr>
<td>Linen a</td>
<td></td>
<td></td>
<td></td>
<td>104</td>
</tr>
</tbody>
</table>

a--1924-38.

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1 But see also the evidence and conclusion of Mr Letiche, op. cit. pp. 379-386.
### Table 23 (continued).

#### B. Output Per Man-Hour, 1924-1935.

<table>
<thead>
<tr>
<th>Industry</th>
<th>1924</th>
<th>1935</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor and Cycle</td>
<td>31</td>
<td>100</td>
</tr>
<tr>
<td>Sugar Confectionery(^b)</td>
<td>54</td>
<td>100</td>
</tr>
<tr>
<td>Rubber(^c)</td>
<td>54</td>
<td>100</td>
</tr>
<tr>
<td>Sugar, Glucose(^c)</td>
<td>58</td>
<td>100</td>
</tr>
<tr>
<td>Tobacco</td>
<td>58</td>
<td>100</td>
</tr>
<tr>
<td>Hosiery(^c)</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>Boots and Shoes</td>
<td>66</td>
<td>100</td>
</tr>
<tr>
<td>Cotton Textile</td>
<td>67</td>
<td>100</td>
</tr>
<tr>
<td>Steel Rolling</td>
<td>68</td>
<td>100</td>
</tr>
<tr>
<td>Woollen and Worsted</td>
<td>69</td>
<td>100</td>
</tr>
<tr>
<td>Cement</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Paper</td>
<td>74</td>
<td>100</td>
</tr>
<tr>
<td>Grain Milling</td>
<td>79</td>
<td>100</td>
</tr>
<tr>
<td>Brick</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

\(^b\)--1925-1935.
\(^c\)--1923-1935.

**Source:** Rostas, op.cit.

their output. Between 1909 and 1939, for instance, the vehicle and chemical industries registered some of the largest increases in output per wage-earner. On the other hand, between 1924 and 1935, output per man-hour rose less than average in such typically import-competing industries as cotton textiles and woollen and worsteds.
Can this admittedly inconclusive evidence be supplemented by a priori considerations indicating that the rate of increase of productivity is likely to be most rapid in a country's export industries? A country's export industries are not necessarily those in which productivity, in absolute terms, is highest in the country; the range of export products is determined by comparative advantage. Thus it cannot be argued that in the past productivity rose fastest in a country's export industries. But once an industry has been established as an export industry, it is probable that its efficiency will grow at a faster rate than that of other industries in the country. For export industries have to sell in foreign markets where competition tends to be more perfect than at home. Moreover, the development of new products is equivalent to the creation of new export industries.

These considerations apply to other countries besides the United States. Thus unless it can be shown that other influences are also at work, the balance of payments effects of an export bias in the rate of productivity growth in other countries will tend to offset the effects of export-bias in the U.S. The following not implausible hypothesis seems to suggest that an export-bias is likely to be more prevalent in the most progressive country. In absolute terms, output per man-hour is probably higher in practically all American industries than in similar industries abroad. The U.S. has relatively little to learn from other countries. On the other hand, other countries can hope to increase their productivity in most industries by copying American methods of production. This will tend to

1 Hicks is not explicit as to whether the alleged import-bias is an American phenomenon or a universal one. It is only in the former case that, on Hick's assumptions, an import bias in productivity increases can be regarded as damaging to the balance of payments of other countries.
be a powerful factor making for random increases in productivity in other countries; perhaps, in some countries it will tend to make for an import-bias in productivity growth. For the dissemination of information about methods of production in the U.S. is likely to be greatest in the case of American export industries (which are, of course, the import competing industries of other countries). Other countries are, by definition, more familiar with American export goods. In a more positive way, American direct investment will tend, to some extent, to be concentrated in those industries in which the U.S. enjoys a comparative lead. Lastly, and most important, the export industries of the most progressive countries enjoy enormous prestige value and tend to set the pattern and direction of industrial expansion for countries with a slower rate of productivity growth.

If the broad outline of this picture is correct, the most progressive country will tend in part to maintain or increase her lead in the world market by developing new products. Table 24 overleaf sets out the exports of some relatively new industries in the U.S., U.K. and Germany. In most of the groups shown the American exports accounted for the largest proportion of the market. In the most genuinely new groups, such as synthetic plastics, agricultural machinery, tractors and office machinery, U.S. exports were about equal to or exceeded the combined exports of the U.K. and Germany. Between 1938 and 1954 Britain and Germany increased their share of world exports in many of these commodities; this is in accord with the hypothesis made earlier that other countries will tend to develop

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1 Between 1938 and the post-war period the U.K. increased her exports of new goods substantially. A detailed list of the U.K.'s new exports is given in Table 37. It is striking, however, that American capital in the form of direct investment in the U.K. played a prominent role in developing many of these new industries in the U.K.
Table 24. Exports of Relatively New Industries in the United States, United Kingdom, and Germany, 1954. (Million Dollars)

<table>
<thead>
<tr>
<th>SITC Code</th>
<th>Commodity</th>
<th>U.S.</th>
<th>U.K.</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>313</td>
<td>Petroleum products</td>
<td>580</td>
<td>235</td>
<td>57</td>
</tr>
<tr>
<td>541</td>
<td>Medical, pharmaceutical products</td>
<td>245</td>
<td>95</td>
<td>48</td>
</tr>
<tr>
<td>599</td>
<td>Chemical materials and products</td>
<td>235</td>
<td>106</td>
<td>104</td>
</tr>
<tr>
<td>629</td>
<td>Rubber manufactures</td>
<td>109</td>
<td>76</td>
<td>25</td>
</tr>
<tr>
<td>653 05</td>
<td>Fabrics of synthetic fibres and spun glass</td>
<td>112</td>
<td>78</td>
<td>80</td>
</tr>
<tr>
<td>711</td>
<td>Power generating machinery</td>
<td>169</td>
<td>230</td>
<td>122</td>
</tr>
<tr>
<td>712</td>
<td>Agricultural machinery</td>
<td>126</td>
<td>48</td>
<td>83</td>
</tr>
<tr>
<td>713</td>
<td>Tractors other than steam</td>
<td>310</td>
<td>140</td>
<td>56</td>
</tr>
<tr>
<td>714</td>
<td>Office machinery</td>
<td>96</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td>715</td>
<td>Metal-working machinery</td>
<td>198</td>
<td>78</td>
<td>180</td>
</tr>
<tr>
<td>716 03</td>
<td>Construction and mining machinery</td>
<td>426</td>
<td>109</td>
<td>83</td>
</tr>
<tr>
<td>716 08</td>
<td>Textile machinery</td>
<td>82</td>
<td>128</td>
<td>78</td>
</tr>
<tr>
<td>721</td>
<td>Electric machinery and appliances</td>
<td>800</td>
<td>476</td>
<td>366</td>
</tr>
<tr>
<td>721 01</td>
<td>Generators, motors, transformers</td>
<td>165</td>
<td>160</td>
<td>114</td>
</tr>
<tr>
<td>721 04</td>
<td>Wireless apparatus of all kinds</td>
<td>213</td>
<td>73</td>
<td>49</td>
</tr>
<tr>
<td>734</td>
<td>Aircrafta</td>
<td>618</td>
<td>140</td>
<td>--</td>
</tr>
<tr>
<td>811</td>
<td>Prefabricated buildings</td>
<td>5</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

*a*—The U.S. figure for aircraft in 1954 is not typical of the whole post-war period. In 1951 and 1952, for instance, exports of aircraft were 19m. and 27 million dollars respectively. The aircraft industry probably provides a case in which the country which pioneered new techniques (i.e. the U.K.) lost her lead to the U.S.

**Source:** United Nations, Yearbook of International Trade Statistics, 1954. Figures for German and British exports appear in national currencies; they have been converted into dollars at current rates of exchange.
fastest industries which are competitive with U.S. export industries. But the striking feature remains that long after many of these commodities were developed, the U.S. maintained her position as by far the largest exporter of new products.

In more general terms, in 1937 and 1950 the United States had the most "modern" industrial structure. A larger proportion of American exports than of exports of any other country were in commodity groups which, in the period from about 1900 to 1950, increased their shares in world trade in manufactures. Table 25 compares the trade structure of the U.S., U.K., France and Germany in 1937 and 1950.

Table 25.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Share in World Trade in Manufactures (%)</th>
<th>Structure of Trade</th>
<th>Not separately Classif.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Expanding(^a)</td>
<td>Stable(^b)</td>
</tr>
<tr>
<td>U.S.</td>
<td>1937</td>
<td>19.6</td>
<td>58.8</td>
<td>32.4</td>
</tr>
<tr>
<td></td>
<td>1950</td>
<td>29.1</td>
<td>52.4</td>
<td>32.0</td>
</tr>
<tr>
<td>U.K.</td>
<td>1937</td>
<td>22.4</td>
<td>31.2</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>1950</td>
<td>25.0</td>
<td>43.0</td>
<td>24.8</td>
</tr>
<tr>
<td>France</td>
<td>1937</td>
<td>6.4</td>
<td>27.9</td>
<td>36.1</td>
</tr>
<tr>
<td></td>
<td>1950</td>
<td>10.2</td>
<td>34.0</td>
<td>27.4</td>
</tr>
<tr>
<td>Germany</td>
<td>1937</td>
<td>22.4</td>
<td>35.3</td>
<td>46.1</td>
</tr>
<tr>
<td></td>
<td>1950</td>
<td>7.1</td>
<td>43.5</td>
<td>44.3</td>
</tr>
</tbody>
</table>

Note: Expanding, stable and declining groups are defined by the author in terms of changes in the share of the commodity group in world trade in manufactures over the period 1899 to 1950.

\(a\)—Expanding groups are: motor vehicles etc, industrial equipment, electrical goods, and iron and steel.

\(b\)—i.e. chemicals, miscellaneous materials (leather, rubber, wood, paper, etc), agricultural equipment, metal manufactures, books, films etc and non-metallic materials (abrasives, glass etc.)

\(c\)—i.e. drink and tobacco, railways, ships, etc, finished goods N.E.S., (furniture, leather and rubber manufactures, jewellery etc) apparel and textiles.

Source: Adapted from H. Tyszinski, World Trade in Manufactures, 1899-1950, in the Manchester School of Economic and Social Studies, September, 1951.
Thus in 1937, 59% of American exports were in the expanding groups, compared with 31% of British, 28% of French and 35% of German exports. Between 1937 and 1950 the structure of European industry shifted considerably toward the expanding groups; but the figures for 1950 do not provide a complete picture because both Germany and Japan had not recovered their pre-war share in the world trade in manufactures.

This favourable industrial distribution helped the U.S. to increase her share in world trade over the last 50 years or so. Between 1899 and 1937, the United State's share in world trade in manufactures rose from 11.2% to 19.6%, i.e. a gain of 8.2 percentage points. Assuming that while the structure and value of world trade was changing, the U.S. maintained her share in each individual group of exports, the American share would have risen in 1937 to 16.2% because of the increased importance in world trade of those groups in which American exports were concentrated. Thus a gain of 5.0 percentage points in the share of the U.S. in world trade in manufactures was due to favourable changes in the structure of trade; the remaining gain of 3.4 percentage points was due to the competitive efficiency of the U.S. which showed itself in an increase in the American share in individual groups of exports.1

It is not contended that a country can only improve her share of world trade by concentrating on expanding industries.2 Nor is it intended to suggest that changes in a country's share in world trade

1 Tyszynski, op.cit., p.289.
2 Mr Tyszynski has shown that between 1899 and 1937 the U.S. increased her share of world trade by gains in the expanding groups, Canada by concentrated gains in the stable groups and Japan by gains in the declining groups. On the other hand, the decline in the share of the U.K. was mainly due, not to changes in the structure of world trade and manufactures, but to the competitive inability of Britain to maintain her share in individual groups of exports, mainly in iron and steel and industrial equipment. op.cit.,pp289-91.
exports are indications of changes in the balance of payments. Clearly the picture is incomplete as no account is taken of changes on the side of imports. Further, as Letiche points out, if world exports are expanding, even a declining share in them may mean larger exports, in absolute terms; and this may be more relevant to a discussion of balance of payments adjustments. Nevertheless, other things being equal, a country is more likely to increase her exports, both absolutely and relatively to other countries, when these exports are concentrated in rapidly expanding groups rather than in stable or declining groups.

Summary.

The evidence surveyed suggests that if the period since about 1900 is considered as a whole, productivity in the U.S. has increased faster in the United States than in the rest of the world. A comparison between British and American productivity in the manufacturing industry reveals that output per man-hour rose faster in the U.S. than in the U.K., not only over the period 1900 to 1955 taken as a whole, but also in almost all subperiods studied; a possible exception appears to be provided by the period after the Second World War, when output per man-hour in the two countries increased at approximately the same rate. Lastly, there is some indication that an export bias in productivity growth is likely to be more prevalent in the U.S. than in other countries; this is almost certainly the case when the development of new goods is considered as an instance of an export-biased improvement in productivity.

1 op.cit.,397-8.
PART III.

AN EXOGENOUS INTERPRETATION: FOREIGN ECONOMIC POLICY OF THE UNITED STATES AND THE BALANCE OF PAYMENTS OF THE UNITED KINGDOM.
CHAPTER 5. UNITED STATES FOREIGN INVESTMENT IN THE POST-WAR PERIOD.

SECTION A. CONDITIONS UNDER WHICH FOREIGN INVESTMENT CAN CONTRIBUTE TO INTERNATIONAL PAYMENTS EQUILIBRIUM.

Introductory Remarks.

In very broad terms, all the post-war international economic institutions accepted free-trade as their goal. It was generally recognised that free-trade is the policy likely to prove most beneficial to the world considered as a whole.

Apart from numerous waiver clauses intended to operate during the "transition period", the affirmation of faith in free-trade was, in theory, unconditional save for two qualifications. In the first place, the coming of a free-trade era was expected to be gradual. Secondly, countries were to be allowed to resort to trade or exchange controls only in the event of serious balance of payments difficulties.

The faith in the efficacy of free-trade went hand in hand with the realisation that a country's external payments position depended partly on the economic policies adopted by other nations. Hence the recognition on the part of many national governments of a duty to refrain, if possible, from any action which was likely to embarrass other countries to a marked extent. To this end, both the Articles of Agreement of the IMF and the informal constitution of the GATT, while avoiding the formulation of rules which could be regarded as interference with a country's domestic policy, constructed a code of behaviour to be observed by member countries in the field of international trade proper. This code was essentially negative in the sense that it specified certain types of action which no government could ever take, or could only take under agreed conditions. To give the best-known example, currency devaluation was only to be allowed in a situation of "fundamental disequilibrium".
Even if these principles had been reflected faithfully in the actual policies of individual countries, it would have still have been difficult to pass judgment on the delicate question of whether a country's efforts to achieve, or maintain, a sound payments position were hampered by the policies of other governments. The concept of "a sound payments position" is not one of the easiest to define in a meaningful and consistent manner. Another difficulty is that domestic policies, the recognised and accepted sphere of the national government, are bound to have external effects; in a sense, therefore, every conceivable action on the part of a national government is likely to affect, in one way or another, the international payments position of some other country. Moreover, a restrictive or protective policy is not easily defined: direct restrictions are not the only means of improving the balance of payments, though they are often the most effective. Tariffs can usually be raised to such prohibitive heights that they perform a similar function to that of, say, import licencing. From the balance of payments point of view, export subsidies may also perform similar functions. However, it might not have been impossible to gain a clear view as to how far protective policies were justified, provided that balance of payments difficulties had remained in practice the only reason for which national policies designed to improve the external position of the country were adopted.

As might have been expected, however, it was found impossible to translate this relatively simple code of behaviour into action. The crux of the matter is that the rules of the game have not been observed faithfully; this is not to suggest that the Bretton Woods rules have remained a dead letter in their entirety. On the contrary, it is probably more correct to say that their partial application saved international economic relations from becoming chaotic. Nor is it suggested that they were in any sense bad rules. Their partial
failure is easily explained. At particular times and in a wide variety of circumstances individual nations may find it advantageous to adopt protective measures. Moreover, in deciding on a national policy, the interests of individual groups within each country often receive precedence over the interests of the nation as a whole. Free trade has to be enforced, and could only have been enforced if the international institution of the post-war era had been given supra-national powers. Needless to say, few governments were prepared for such a surrender of national sovereignty.

In the light of the preceding remarks, it is difficult to give an unequivocal answer to the question whether the United Kingdom's payments difficulties were caused or accentuated by the policies of other nations. For if the restrictionist policy of a country can be said to have adversely affected Britain's external position, by the same token the explanation of the payments difficulties can be found in a too-liberal trade policy on the part of the United Kingdom. It is very much a matter of degree, a question of what is reasonable or conventional.

In these circumstance the statement that Britain's balance of payments position was affected by the policies of other nations, is, it is suggested, capable of three meaningful interpretations. Firstly, it can mean that the U.K. was not in a position, for whatever reasons, to take parallel restrictive measures to those which might have been adopted by other countries. To put it in another way, one may argue that the power of the U.K. to enforce sanctions and retaliate was weak in comparison with similar powers wielded by other countries.

Secondly, it can mean that the government of the U.K. observed more faithfully than other countries the code of conduct established at international conferences since the end of the war. Given the nature of these rules of the game, this more or less means that the
British government pursued a more liberal policy than other governments.

Thirdly, the external policies of other countries can be considered independently of the foreign economic policy of the U.K. and of the code of conduct established since the end of the war. No consideration is given as to whether a policy is, in any sense, right or wrong; the only relevant criterion is its effect on the balance of payments of the U.K.

The first and second lines of approach would tend to carry the argument away from the main objectives of this thesis. The second approach in particular would require a treatise on international law. The first type of analysis, i.e. that a country's balance of payments difficulties may be causally related to a relative weakness in that country's power to enforce sanctions and retaliate, raises many fascinating problems.¹ But in the context of a discussion of the post-war payments problems of the U.K., the study of retaliation as an independent influence on a country's external position might confuse the issues. It would tend, for instance, to impute a certain moral undertone to policies of other countries which may or may not have been present. It should, therefore, suffice to state briefly that the present power of the U.K. to enforce sanctions is limited. In the considered opinion of one authority², Britain's bargaining power is not very great, either absolutely or in comparison with that of the U.S., and it has probably declined since 1938.

¹ The literature on retaliation in international trade is extremely short. T.D.Scitovszky in his "A Reconsideration of the Theory of Tariffs" considered the conditions under which a country could hope to increase her own national welfare by raising her tariffs. This article was reprinted in Readings in Theory of International Trade, Blakiston, Philadelphia, 1949; see especially pp.372-77. T.Balogh examined the forms of retaliation which an export surplus country might use to prevent other countries from discriminating against her. See, A Note on the Economics of Retaliation, in Review of Economic Studies, Vol.XI, 1944, pp.86-9.

The third line of approach appears to be the only possible one. The question discussed in the following pages is whether the foreign economic policy of the U.S. made it more difficult for Britain to maintain a satisfactory international payments position during the post-war period. In particular, it is intended to consider in some detail the effects of American foreign investment and tariff policies on the balance of payments of the U.K.

The Conditions Under Which Foreign Investment Is Conducive to Balance of Payments Equilibrium.

Ever since the end of the Second World War high hopes have been placed on U.S. private foreign investment as a means of helping other countries to narrow or close the dollar gap. The need for providing capital for economic development, especially in backward countries, was, of course, the primary force behind most plans aiming at fostering foreign investment.

The prospect of solving payments difficulties through foreign investment appeared to be a very attractive one, particularly to the U.S. government which hoped to see a reduction in public aid as foreign investment expanded. A general welcome was therefore extended to that aspect of a good creditor policy which postulated an increase in the flow of international capital.

It was never made quite clear why American foreign investment should be a factor making for equilibrium in a world in which the U.S. was normally expected to enjoy a balance of trade surplus. One rather suspects that the main source of this conviction was the historical analogy with the position of Britain in the 19th century.\(^1\) In

\(^1\) For some of the differences in the position of the U.K. in the 19th century and that of the U.S. in the 20th, see F. McIntyre, Foreign Investment and Trade Policy in U.S., in American Economic Review, May 1954.
that age there was never any talk or suspicion of a "sterling shortage". Can this not be explained by the fact that for over half a century before 1914 the U.K. had invested a substantial portion of its national income abroad?

It is generally realised that international investment as a source of foreign exchange for the receiving country is subject to a rather serious drawback; amortization, interest and dividend payments tend to grow with foreign investments. Thus unless foreign investment is continuous and grows faster than earnings on such investments, a time comes when transferred interest and dividend payments exceed the amount of foreign currency made available through new foreign investment.

Assume that the world consists of two countries, A and B, and that A enjoys a balance of payments surplus on current account. The question is under what conditions foreign investment by country A is likely to continue to make, over a long period of time, a contribution to the smooth functioning of an international payments system.

If country A consistently has a payments surplus, then the required condition is that net exports of new capital from A should always exceed remittances on A's foreign investments. But, as Viner points out, "Debt service on amortization and interest account reaches and exceeds the annual amount of a constant gross outflow of new capital after a period surprisingly short for those like myself who are still capable of being startled by the wondrous working of compound interest."¹

Thus a constant outflow of new foreign investment does not

fulfil the required condition. It is essential that the annual out-
flow of capital should continue to grow if interests and dividends re-
turning to the country are not to exceed the outflow of new capital. 
At what rate should the outflow of new investment increase? The 
correct theoretical answer was formulated by E.D. Domar.

"The ratio of the inflow of funds, i.e. interest and amortiza-
tion, to the outflow, i.e. new investment, will generally approach 
as a limit the expression

\[
\frac{\text{amortization rate} + \text{interest rate}}{\text{amortization rate} + \text{rate of growth}}
\]

where amortization is computed in accordance with the so-called net-
value method\(^1\), and the rate of growth indicates the relative (i.e. 
percentage) growth of new investment..... Whether or not an import 
balance (i.e. an excess of inflow of funds over the outflow) will at 
all appear depends on the relative magnitude of the rate of growth 
and of interest rate. If the rate of growth exceeds the interest 
rate this ratio will be less than one, and an import balance will 
never arise. If, on the other hand, the rate of growth falls below 
the rate of interest, an import balance will become inevitable, its 
timing depending on the magnitude of the three variables."\(^2\)

A larger amortization rate means a larger outflow of funds;
but, at the same time, it means a faster reduction in net debt out-
standing: hence the presence of amortization rate in both the nume-
rator and the denominator in the expression given above.\(^3\) The

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\(^1\) The amortization rate of this ratio is computed as a constant frac-
tion of the net debt still outstanding.

\(^2\) E.D. Domar, The Effect of Foreign Investment on the Balance of Pay-

\(^3\) These conclusions are not affected when different methods of amor-
tization are used. Domar analyses the problem when the "original 
value method" and the "equal instalment method" are used. The 
main conclusion which emerges from this analysis is that, if the 
conditions necessary for avoiding an excess of interest and divi-
dends over the outflow of capital cannot be realised in practice, 
it arrival can be delayed by an intelligent amortization policy. 
Domar suggests that in the above circumstances amortization payments 
should be speeded up. See Domar, op. cit., table on page 813.
critical ratio then becomes that between the rate of growth of foreign investment and the earnings on such investment. Assuming that foreign investment can be relied upon to grow at the same rate as the national product of country A, an excess of inflow over outflow of funds need never arise so long as the annual growth of the national product exceeds the average annual yield on A's foreign investments.

The model in which the above proposition is elegantly proved has been described by a very high authority as "formally correct".\(^1\) The criticisms made below are therefore at a different level. They refer to the policy implications inherent in Domar's analysis rather than to its theoretical formulation. In the first place, its conclusions are inapplicable to the real world; for they are the result of a static analysis. In particular, in a dynamic environment the annual rate of growth of new investment and the rate of return on such investment are interdependent. A rise in the rate of return is likely to lead to increased investment, but there is no reason to expect that the increase in the two magnitudes will be proportional. The function of foreign investment as a factor making for equilibrium in international payments may, under the dynamic conditions of the real world, be quite different from what a static analysis would suggest.

In the second place, Domar's criterion, i.e. the excess of the outflow of new investment over the receipts of interest and dividends on such investment, offers too narrow a basis for judging whether foreign investment can make, over a long period of time, a contribution to the smooth functioning of an international payments system.

Several other effects on the balance of payments of the receiving country will have to be considered. The objection to introducing these, so to speak, indirect effects is that, on the whole, they cannot be estimated very precisely; their consideration will thus make any clear-cut conclusions difficult. Nevertheless, these effects are real and cannot be ignored. Three such effects can be distinguished.

(a) The first type of effect is of a very general character and cannot be discussed in any detail here. It is the contribution of foreign investment to the strength of the economy of the receiving country. This type of effect is often intangible and therefore cannot be measured. The underlying assumption is, of course, that A, the country which makes the investment, is more "efficient" than other countries. Such benefits will be greatest in the case of direct investments which involve elements of ownership, control and management. Direct investments are usually accompanied by the export of "know-how", and are often made for the explicit reason of introducing a new technique or product into a country. Thus, on an a priori basis, one would normally expect direct investment to make a much larger contribution to the economy of a country than an equivalent amount of portfolio investment.

(b) Foreign investment can be expected to have considerable effects on the imports of the country in which it is made. Like all investment activities, most types of foreign investment are essentially inflationary since no goods are produced until some time after the investment has been completed. The increase in incomes to which foreign investment gives rise is likely to be spent partly on imported goods. If foreign investment is large in comparison with domestic investment, then the increase in imports attributable to foreign
investment would be substantial. Particular types of investment may make use of a more than proportional amount of imported materials. This may be the rule rather than the exception; for many of the goods will have to be imported from the country in which investment originates.

On the other hand, country A can be expected to invest abroad in those industries in which it has a lead. As a rule, these industries are A's export industries. It can therefore be anticipated that some investment by A in B will be in B's import competing industries. B, therefore, will be able to reduce her imports from A. This presumption is reinforced by the fact that foreign investment is often undertaken with the express purpose of preserving ties with markets abroad which are otherwise inaccessible owing to exchange restrictions.

(c) Foreign investment can normally be expected to make some contribution toward increasing the exports of the country in which it is made. Consideration of the motives for which foreign investment is often undertaken suggests that this contribution is likely to be quite out of proportion to the actual amount of capital invested. Business concerns in A have an incentive to invest in those industries abroad for the products of which a ready market exists within A. This consideration will apply with particular force to investment for developing foreign resources of raw materials. Even though the deliberate attempt to preserve some of A's own internal resources from exhaustion may be lacking—and it is likely to be lacking in the case of private investment—still industrial and commercial concerns in A will be attracted by the possibility of obtaining abroad sources of materials needed for their own expansion.
Outflow of U.S. Long-Term Capital to the Rest of the World.

Statistical information on U.S. long-term foreign investment during the post-war period is summarised in the table on this page. Several comments can be made in the light of earlier analysis. In the first place, public long-term foreign investment exhibited, as one might have expected, an almost uninterrupted downward trend. On the other hand, no consistent trend is discernable in the figures for private long-term investment. They tended to fluctuate at a rather low level. Indeed, in constant prices, it is obvious that there was a considerable decline between the earlier post-war years and the average for 1953-4.

**Table 26.**

Net Outflow of United States Long-Term Capital to All Areas. (Million current Dollars and %)

<table>
<thead>
<tr>
<th>Year</th>
<th>Private Long-Term (1)</th>
<th>Government Long-Term (2)</th>
<th>Total Long-Term (3)</th>
<th>Private as % of GNP (4)</th>
<th>Government plus Private as % of GNP (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947</td>
<td>798</td>
<td>6856</td>
<td>7654</td>
<td>0.34</td>
<td>3.36</td>
</tr>
<tr>
<td>1948</td>
<td>790</td>
<td>1112</td>
<td>1902</td>
<td>0.31</td>
<td>0.74</td>
</tr>
<tr>
<td>1949</td>
<td>740</td>
<td>479</td>
<td>1219</td>
<td>0.28</td>
<td>0.47</td>
</tr>
<tr>
<td>1950</td>
<td>1116</td>
<td>119</td>
<td>1235</td>
<td>0.38</td>
<td>0.42</td>
</tr>
<tr>
<td>1951</td>
<td>965</td>
<td>153</td>
<td>1118</td>
<td>0.29</td>
<td>0.34</td>
</tr>
<tr>
<td>1952</td>
<td>1064</td>
<td>417</td>
<td>1481</td>
<td>0.31</td>
<td>0.43</td>
</tr>
<tr>
<td>1953</td>
<td>526</td>
<td>229</td>
<td>755</td>
<td>0.14</td>
<td>0.21</td>
</tr>
<tr>
<td>1954</td>
<td>986</td>
<td>-201</td>
<td>785</td>
<td>0.27</td>
<td>0.22</td>
</tr>
</tbody>
</table>

The second, rather disappointing feature, is that foreign investment in the post-war period constituted only a very small portion of the gross national product. Columns (4) and (5) of the Table on the preceding page indicate the relationship between the GNP and long-term foreign investment. Comparison of these percentages with the pre-war relationship confirms the fact that foreign investment failed to keep pace with the expansion of the American economy.¹ For most of the years shown in the Table long-term private foreign investment constituted a mere 0.3% of the gross national product. However, apart from 1953, when private investment fell sharply, a constant relationship to the GNP was nearly maintained.

In the third place, the evidence indicates that foreign investment does not depend to any marked extent on the level of economic activity. Indeed, the preceding table confirms neither of the two contradictory theories held in this field: recession in the U.S. does not seem to lead to a rush on the part of American investors to seek more prosperous outlets abroad. Nor is there any suggestion of a positive correlation between economic activity in the U.S. and the level of foreign investment. For instance, in spite of a substantial increase in the GNP between 1950 and 1951, long-term foreign private investment in the same period declined by about 150 million dollars. Again, the small decline in the GNP between 1953 and 1954 was accompanied by a substantial rise in private foreign investment.

A fourth consideration may be instructive when considering foreign investment as a short term palliative of the dollar shortage. Though there is no theoretical reason why American private investment should not rise substantially for a short period, there is nothing in post-war experience to suggest that such a development is likely:

¹ For details see below.
year to year fluctuations in private foreign investment were comparatively small. The largest annual increase, viz. 380 million dollars, occurred in 1950, and is to be explained in part by a special loan of 200 million dollars by a group of American banks to the French government.

The final, and perhaps the most directly relevant consideration is the fact that dollars made available through the outflow of long-term private capital constituted only a small proportion of the total dollar receipts, and therefore of the total requirements, of the rest of the world. In the period 1947-53, dollars made available through American long-term private investment represented about 6% of the total dollar receipts accruing to the rest of the world from all sources except grants, i.e. from U.S. imports, invisible payments and loans made by government agencies. By way of contrast, this ratio stood at about 20% in 1927-8.¹

An appropriate annual rate of outflow of U.S. long-term foreign capital to the rest of the world is only one of the conditions postulated as necessary if long-term investment were to function as a factor making for equilibrium in international payments. Before proceeding to consider whether the other conditions were fulfilled, it may be instructive to enquire whether the post-war low level of U.S. private long-term investment in relation to the dollar problems of the rest of the world was due to factors of an exceptional and temporary character. Was there any justification for expecting American foreign investment to have provided the rest of the world with a much larger supply of dollars than it actually did?

Unrealised Expectations as to the High Level of American Investment
In the Post-War Period.

(A) Historical experience both of other nations and the U.S.
herself in the nineteen-twenties seems to have indicated the possi-
bility of a much larger flow of long-term capital. The outstanding
example is, of course, that of Britain in the pre-1914 period. Over
the half-century preceding the outbreak of the first world war, Britain
invested overseas an amount equal to about 4% of her national income.
If this 4% is applied to the GNP of the U.S. in 1954, a figure of 14.6
billion dollars is obtained; this compares with an actual outflow in
the post-war years of between three-quarters and slightly over one
billion dollars.

In this historical comparison it is not often realised, however,
that both the economic environment and the scope of foreign investment
were entirely different in the 19th century from what they were in the
20th. The 19th century was a unique one, a century of vast economic
development in primary-producing countries. About two-thirds of the
British capital went to "the regions of recent settlement", i.e. Canada,
U.S. and Australia, and it went there together with a great migration
of people. Again, American investment in public utilities was negli-
gible, whereas in 1913 about three-quarters of U.K. foreign investment
was in public utility undertakings. Then, the bulk of international
investment in the 19th century depended on government action in the
borrowing countries.1 Lastly, it should never be forgotten that
whereas, in the late 19th century, Britain had a trade deficit, the
U.S. in the 20th consistently enjoyed a trade surplus; the incentive
to possess an independent source of foreign exchange was bound to be
different.

1 Most of these points are taken from R. Nurkse's, The Problem of
International Investment Today in the Light of 19th Century Expe-
But if the 19th century experience of Britain did not suggest the probability of large American investment in the post-war period, what are the lessons of U.S. experience in the late 'twenties? In 1926-8 the net outflow of U.S. private long-term capital averaged 919 million dollars. This represented 0.88% of the GNP. In the best post-war year, namely 1950, this ratio was only 0.38%. If the same percentage of the GNP had been invested abroad in 1952 as it was in 1926-8, the outflow of private long-term capital would have been 3.1 billion dollars. In actual fact, it was only 1.1 billion.

The following table compares long-term private investment in the late 'twenties with the same in selected post-war years. No further comment is necessary except that in the 'twenties, as a result of the higher proportion of portfolio investment, reinvested earnings were a much smaller part of the total than they were in the post-war years.

Table 27.

Net Outflow of U.S. Private Long-Term Capital for Selected Years.
(Million Dollars.)

<table>
<thead>
<tr>
<th>Year</th>
<th>In Current Prices Excluding Reinvested Earnings</th>
<th>In Current Prices Including Reinvested Earnings</th>
<th>In 1952 Prices Excluding Reinvested Earnings</th>
<th>In 1952 Prices Including Reinvested Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>'26-8 (ave.)</td>
<td>919a</td>
<td>1039</td>
<td>1436a</td>
<td>1621</td>
</tr>
<tr>
<td>1948</td>
<td>748</td>
<td>1329</td>
<td>763</td>
<td>1356</td>
</tr>
<tr>
<td>1950</td>
<td>1168</td>
<td>1643</td>
<td>1327</td>
<td>1867</td>
</tr>
<tr>
<td>1952</td>
<td>993</td>
<td>1869</td>
<td>993</td>
<td>1869</td>
</tr>
<tr>
<td>'47-52 (ave.)</td>
<td>913</td>
<td>1498</td>
<td>969</td>
<td>1579</td>
</tr>
</tbody>
</table>

a--Rough estimates; official figures on reinvested earnings during the period are not available.

(B) It is not within the scope of this study to examine in any detail the failure of American private investment to fulfil the expectations placed upon it. But lest it should be thought that the low level of American private investment is to be explained chiefly in terms of the abnormal and temporary conditions, the following considerations should be borne in mind.

In the first place, if it were believed that post-war conditions were abnormal, no great expectations should have been placed on a high level of U.S. long-term investment. To try to solve the dollar shortage through increased foreign investment before "normal" conditions were established was to put the cart before the horse; and the moreso if "normality" presupposed that the rest of the world as a whole was in payments equilibrium with the U.S.

Secondly, one of the abnormal conditions, namely the widespread use of exchange and other restrictions, far from hindering foreign investment, was the most important single factor in fostering it. In all the surveys undertaken since the end of the war, the desire of American exporters to maintain contact with markets threatened to be cut off by restrictions was given as the chief motive for establishing subsidiaries abroad.

Thirdly, some of the so-called abnormal conditions were not nearly so abnormal, especially in the later post-war years. For instance, by 1953 the OEEC was able to report that, in Member Countries, except Italy and Greece, very few restrictions remained on the transfer into dollars of income accruing from new U.S. investment1 and that no instance had been discovered where nationalisation or expropriation by member countries was directed against foreign nationals or foreign

1 OEEC study cited above, page 41.
firms as such.¹

Nor does the evidence suggest that the insecurity of the post-
war period was a stumbling block to foreign investment. Scanty use
has been made of the existing guarantee programmes which provide insu-
rance against specific political risks and against stated percentages
of the total risk of default on foreign debts. As of June 30th 1953,
54 guarantees were issued in the total amount of about 42 million dollars²

The complex tax structure of the U.S. which may indeed hinder fo-

to-foreign investment can hardly be classed as an abnormal factor. Under
the American tax system, repatriated profits have to pay the difference
between the income tax of the country in which the investment is lo-
cated and the American rate of tax. It remains to be seen whether
the implementation of some of the recommendations on foreign investment
of the Randall Commission would act as an effective incentive.³

Lastly, there is no evidence to suggest that public lending
on a large scale had an unfavourable effect on the level of private
foreign investment. In the post-war years the two were hardly com-
petitive, and both the International Bank for Reconstruction and
Development and the Import-Export Bank entered the market only when
they were satisfied that no private lending would have been forth-
coming. Further, the IBRD made a positive contribution in improving

¹ op.cit., p.46.
² Staff Papers: Presented to the Commission on Foreign Economic
³ See Report of the Commission on Foreign Economic Policy, Jan.1954,
pp.17-29. As a result of the recommendations therein, the Foreign
Operation Administration extended the coverage and halved the pre-
miuim charged for government insurance against expropriation or cur-
rency inconvertibility. Further, the so-called overall limitation
on the extent to which foreign tax payment could be credited against
U.S. income taxes has been removed. It has also been suggested
in Economic Report of the President 1955, pp.53-4 that the tax
rate on corporate income from all foreign sources should be reduced
by 14%.
the climate for private investment by insisting that nations must have a good debtor's record before they could use its facilities.\(^1\) It is probably true, as an annual report of the OEEC suggested\(^2\), that government guaranteed investment through the International Bank was an essential way of creating conditions in which private foreign investment might flourish.

The conclusion seems warranted that the present low level of American private long-term investment is not due to exceptional factors. Even if the American foreign investor were to forget his unfortunate experiences in the early 'thirties, he is unlikely to be in a position to invest abroad on the former scale. The basic fact is that no capital lies idle within the U.S. ready to be exported. Opportunities for investment within the U.S. are immense, infinitely larger than in the 'twenties. It must therefore be inferred that American private investment is unlikely to expand substantially in the near future and that its present level must be regarded as "normal".

**Income on U.S. Foreign Investments.**

The following table gives total transferred earnings on U.S. foreign investment. The figures below include some income earned on short-term investment; but the amounts involved are insignificant.

Apart from 1947 and 1948, when public investment was at an exceptionally high level, the total outflow of dollars from the U.S. on investment account fell short of the inflow of interest, dividends and profits. If private investment alone is considered, income

1 See testimony of IBRD before Randall Commission, Staff Papers, op.cit., pp.134-7.
receipts exceeded the capital outflow in every single post-war year. Income on private investments fluctuated considerably, but an upward trend is unmistakable. This is as one would expect, bearing in mind that long-term private investments have increased substantially since the end of the war; but the increase in earnings since 1950 has not been proportional to the increase in investment, partly because a large amount of investment has not yet reached production stage, partly because intensive research has been very costly, and partly because of depreciation of some foreign currencies.

Table 28.

<table>
<thead>
<tr>
<th>Year</th>
<th>Private</th>
<th>Government</th>
<th>Total</th>
<th>Excess of Total Income Received over Total Capital Outflow from the U.S.</th>
<th>Excess of Income on Private Investments over Outflow of Private Capital from the U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947</td>
<td>1036</td>
<td>66</td>
<td>1102</td>
<td>-6452</td>
<td>238</td>
</tr>
<tr>
<td>1948</td>
<td>1238</td>
<td>102</td>
<td>1340</td>
<td>-562</td>
<td>448</td>
</tr>
<tr>
<td>1949</td>
<td>1297</td>
<td>98</td>
<td>1395</td>
<td>176</td>
<td>557</td>
</tr>
<tr>
<td>1950</td>
<td>1484</td>
<td>109</td>
<td>1593</td>
<td>358</td>
<td>368</td>
</tr>
<tr>
<td>1951</td>
<td>1684</td>
<td>198</td>
<td>1882</td>
<td>764</td>
<td>719</td>
</tr>
<tr>
<td>1952</td>
<td>1624</td>
<td>204</td>
<td>1828</td>
<td>347</td>
<td>560</td>
</tr>
<tr>
<td>1953</td>
<td>1614</td>
<td>252</td>
<td>1866</td>
<td>1111</td>
<td>1088</td>
</tr>
<tr>
<td>1954</td>
<td>1894</td>
<td>272</td>
<td>2166</td>
<td>1381</td>
<td>908</td>
</tr>
</tbody>
</table>

a—Includes some income, on the average about 10 million dollars per annum, on short term private investment. It was 5 million in 1946, 13m. in 1948, and 11m. dollars in 1951.

b—Includes income on short-term government investments. Official statistics do not distinguish between government income on long and short-term investments, but the latter is believed to be small.

c—A minus sign indicates that outflow of capital from U.S. exceeds the inflow into the U.S. of receipts on foreign investments.


The actual excess of the inflow of interest, profits and dividends into the U.S. over the outflow of American long-term capital is not, of course, the magnitude directly relevant to the earlier theoretical analysis. For, investment income received by the U.S. in the post-war period was not merely a function of U.S. investments made during the same period, but also of investments accumulated in the past. In the period 1950 to 1954, this gap averaged nearly 800 million dollars per annum. Its size indicates just how quickly income receipts on investments are likely to outstrip the net capital outflow, unless the latter expands at an ever increasing rate.

Average Rate of Return on U.S. Long-Term Investments.

The annual increase in the outflow of long-term capital from the U.S. must be compared with the average rate of return on all American long-term investments. In Section A this average rate of return was referred to as the interest rate; here the term includes all transferred earnings on U.S. long-term investments. About four-fifths of U.S. long-term foreign investments in the post-war period took the form of direct investment, and earnings on such investment constituted the largest part of total earnings on American foreign investments.

The following table gives the average rate of return on the common type of portfolio investment in two post-war years. These rates may be taken as representative for the whole post-war period. The average rate was 3.5%.

Portfolio investment raises a problem of its own. It is obvious that the lower the average rate of return, the longer it would take for a net inflow of funds into the U.S. to arise. But, in a dynamic interpretation, when the total outflow of portfolio capital
Table 29.

Average Rates of Return on Par and Market Values of United States Investments in Foreign Dollar Bonds by Areas. (%)

<table>
<thead>
<tr>
<th>Area</th>
<th>1948 Par</th>
<th>1948 Market</th>
<th>1951 Par</th>
<th>1951 Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Areas</td>
<td>2.9</td>
<td>3.6</td>
<td>2.8</td>
<td>3.3</td>
</tr>
<tr>
<td>Canada</td>
<td>3.6</td>
<td>3.5</td>
<td>3.3</td>
<td>3.2</td>
</tr>
<tr>
<td>South America</td>
<td>1.9</td>
<td>5.0</td>
<td>2.4</td>
<td>4.6</td>
</tr>
<tr>
<td>Europe</td>
<td>1.6</td>
<td>5.4</td>
<td>1.6</td>
<td>5.2</td>
</tr>
<tr>
<td>IBRD</td>
<td>2.7</td>
<td>2.7</td>
<td>2.9</td>
<td>2.9</td>
</tr>
</tbody>
</table>


Note: The rate of return is the ratio of interest received during the year to the average value of the principal amount outstanding calculated on a quarterly basis for Canadian issues, and on the average of the amount outstanding at the beginning and end of the year for issues of other countries.

from the U.S. is not taken as given, a high rate of return will be an incentive for U.S. investors to increase their export of capital. Considerations of commercial profits influence both portfolio and direct investment; but they are very much stronger in the case of portfolio investment. There is clearly a conflict between the dynamic and static aspects of the problem.

Income on private direct investments regularly accounted for over four-fifths of total, i.e. both private and government, income from investment. It is therefore worth estimating separately the average rate of return on direct private investment. The following estimates were obtained by dividing total outstanding private direct investment at the end of the year by income received on such investment during the year shown. These figures should give sufficiently good approximations even though they may suffer from some obvious
defects. It must be pointed out, however, that direct investments are at book value.

The rate of return on American direct investment averaged slightly less than 10% over the years 1948-53. This is a fairly high figure, especially if it is remembered that it includes only earnings actually transferred. Undistributed profits of subsidiaries amounted to 475 million dollars in 1950, 752m. in 1951, 876m. in 1952, and 776m. in 1953. In 1954 they declined substantially to 641 million dollars. Since American companies were reinvesting a large part of their earnings—about half, except in 1954 when the ratio was much lower—the average rate of return is potentially higher, though not necessarily double the amount given because a decrease in reinvested earnings will mean a corresponding decline in the earning capacity of American firms abroad.

However, a more encouraging picture emerges when the average rate of return on all public and private long-term foreign investments is considered. Results of the calculations are given in the following table.

The average rate of return on all U.S. long-term investments was about 5%. This estimate is slightly higher than some other figures mainly because it is based on revised figures. Estimates by the OEEC give an average rate of return in 1948 of 4.2%. ¹

This rate of return is not exceptional. In the inter-war period rates of return were comparable to those given for the post-war years, even though the proportion of direct to total investments was much smaller than it is today. Data are not available for all the years, but the average rate of return was 6.8% in 1930, 5.2% in 1931, and 4.1% in 1935. ²

¹ OEEC Draft Report by the Economic Committee on Industrial Investments, Statistical Appendix, Paris 1950.
² E. Bloch, op. cit. p. 941.
Table 30.
U.S. Long Term Investments: Income received and Average Rates of Return.

a) U.S. Direct Private Foreign Investments.

<table>
<thead>
<tr>
<th>Investment Position 1)</th>
<th>Income Received 2)</th>
<th>Ave. Rate of Return 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Million Dollars)</td>
<td>(Million Dollars)</td>
<td>(%)</td>
</tr>
<tr>
<td>1948</td>
<td>11206</td>
<td>1064</td>
</tr>
<tr>
<td>1949</td>
<td>12418</td>
<td>1112</td>
</tr>
<tr>
<td>1950</td>
<td>13550</td>
<td>1294</td>
</tr>
<tr>
<td>1951</td>
<td>14889</td>
<td>1492</td>
</tr>
<tr>
<td>1952</td>
<td>14819</td>
<td>1419</td>
</tr>
<tr>
<td>1953</td>
<td>16207</td>
<td>1398</td>
</tr>
<tr>
<td>1954&lt;sup&gt;a&lt;/sup&gt;</td>
<td>17700</td>
<td>1665</td>
</tr>
</tbody>
</table>

b) U.S. Total Long Term Investment, Public and Private.

| 1948                   | 29314              | 1340                   | 4.6        |
| 1949                   | 30744              | 1395                   | 4.5        |
| 1950                   | 32772              | 1593                   | 4.9        |
| 1951                   | 34711              | 1882                   | 5.4        |
| 1952                   | 35167              | 1828                   | 5.2        |
| 1953                   | 37552              | 1866                   | 5.0        |
| 1954<sup>a</sup>       | 40000              | 2166                   | 5.4        |

<sup>a</sup>-Figures for 1954 are provisional.

For column 3), column 2) as % of column 1).
It remains now to express the figures for the post-war outflow of long-term capital from the U.S. in an appropriate form so that they can be compared with the average rate of return on American long-term investments. The figures for 1947 and 1948 were distorted by exceptional government loans; so far as total long-term capital outflow from the U.S. is concerned, the comparison should, therefore, be limited to the period 1949 to 1954.

In 1949 the total outflow of long-term capital from the U.S. amounted to 1219 million dollars. During the post-war period, the average rate of return on all U.S. investments abroad was about 5%. Abstracting from the question of amortization, the outflow of long-term capital from the U.S. should have been rising by 5%, if U.S. investment was to fulfil the essential conditions necessary for its acting as a permanent factor making for equilibrium. In fact, in the period 1949-54, total outflow of long-term capital from the U.S. declined considerably.\(^1\) This overall decline was accounted for by a fall in government investment.

Total private, i.e. direct and portfolio investment did increase somewhat between 1947 and 1954. The increase was by no means uniform, and in 1953 there was a substantial decline. But over the period 1947-54, taken as a whole, the outflow of long-term private capital from the U.S. increased at 3%-4% per annum. As the average rate of return on private American investments abroad was about 8%, the outflow of long-term private capital fell below the requisite level. Again this conclusion rests on the assumption that no amortization payments are made to the U.S. The increase in the gross national product does not normally exceed 3%-4% per annum. If, therefore, within a fairly short period of time, the inflow into

1 See Table 27.
the U.S. of interest, profits and dividends on U.S. investment is not to exceed the outflow of long-term capital from the U.S. The U.S. must be prepared to invest abroad an ever increasing proportion of her gross national product.

Accepting for a moment that a policy of exporting American capital in large quantities was a desirable one, one may pause to enquire whether the export of capital from the U.S. in sufficiently large quantities to prevent a net inflow of dollars into the U.S. on investment account was a practical proposition. Assuming that opportunities existed abroad for investing such capital intelligently, the following hypothesis indicates the order of magnitudes involved.

The annual increase in the GNP can be expected to equal a rate of about 3%. Now if, as Domar has suggested, a constant proportion of the GNP were devoted to long-term foreign investment, the latter would grow annually by 3%. But it was found that the average yield on all U.S. long-term investment in the post-war years was about 4.5%-5%. Can this average rate of return be brought down to 3%, the annual rate of growth of the GNP by the export of capital by the U.S. government?

The chief consideration is that the average rate of return on private investment was very much higher than on the public investment. In 1952, which may be considered as a representative year, the average yield on private investment, direct and portfolio, was 7.7%; in the same year it was only 1.4% for total government long-term investment. Thus, if the average rate of return on future private long-term investments is 7.7%, then the government must be prepared to lend abroad 3.1 times as much as private investors at 1.4% in order to bring the average rate of return on all investments, public and private, to the required 3%. With aggregate government investment standing at well
over 15 billion dollars in 1954, one may doubt the possibility, let alone the wisdom, of exporting even larger quantities of U.S. government capital. If, on the other hand, smaller quantities of American public capital are to be exported, but at an even lower rate of interest, then all the objections associated with free loans and grants come into their own.

What about the alternative possibility of postponing the arrival of an import surplus by a suitable amortization policy? Apart from the objection that balance of payments considerations are not likely to be the only criteria when arranging for the repayment of a loan, the possibilities appear to be further limited. As E. Bloch points out, only about two-thirds of total investment stock have any kind of amortization schedule at all; the most important types, i.e. direct investments, need never be amortized.

Suppose that the rest of the world as a whole did obtain some additional dollars through foreign investment and that the global dollar shortage was correspondingly eased. The U.K. would probably benefit to some extent. But any benefits in terms of dollar exchange accruing to the U.K. appear to be limited by the geographical distribution of U.S. investment. Since the end of the war the lion's share of U.S. investment funds has gone to Canada and Latin American countries. These countries are unlikely to spend any large portion of those dollar on imports from non-dollar sources.

op. cit. p.942.
SECTION C. UNITED STATES INVESTMENT IN THE UNITED KINGDOM.

Outflow of American Long-Term Capital and Income on United States Investment in Britain.

The U.K.'s balance of payments can be improved directly by American investment in Britain. The following table gives details of U.S. long-term investment in the U.K. and of transferred earnings on such investment. Down to 1950 the net outflow of long-term

Table 31.

U.S. Investments in Britain: Outflow of Long-Term Capital and Transferred Earnings, 1946-54.

(a) Outflow of U.S. Capital. (Million Dollars.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>1</td>
<td>13</td>
<td>24</td>
<td>14</td>
<td>49</td>
<td>18</td>
<td>-21</td>
<td>-11</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>21</td>
<td>17</td>
<td>15</td>
<td>35</td>
<td>43</td>
<td>72</td>
<td>78</td>
<td>-37</td>
<td>-1</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>30</td>
<td>39</td>
<td>99</td>
<td>92</td>
<td>90</td>
<td>57</td>
<td>-48</td>
<td>1</td>
</tr>
<tr>
<td>Long-Term</td>
<td>693</td>
<td>2850</td>
<td>533</td>
<td>81</td>
<td>24</td>
<td>--</td>
<td>48</td>
<td>--</td>
<td>7</td>
</tr>
<tr>
<td>Grand Total</td>
<td>714</td>
<td>2880</td>
<td>572</td>
<td>180</td>
<td>90</td>
<td>105</td>
<td>-48</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

(b) Transferred Income on U.S. Investments in U.K. (Long-Term.)

(Million Dollars.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Private</td>
<td>46</td>
<td>59</td>
<td>59</td>
<td>70</td>
<td>73</td>
<td>74</td>
<td>78</td>
<td>91</td>
<td>109</td>
</tr>
<tr>
<td>Other Private</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>26</td>
<td>26</td>
<td>20</td>
<td>20</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>Total Private</td>
<td>62</td>
<td>75</td>
<td>75</td>
<td>96</td>
<td>99</td>
<td>94</td>
<td>98</td>
<td>114</td>
<td>134</td>
</tr>
<tr>
<td>Government</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>88</td>
<td>90</td>
<td>93</td>
<td>92</td>
</tr>
<tr>
<td>Grand Total</td>
<td>70</td>
<td>82</td>
<td>91</td>
<td>100</td>
<td>102</td>
<td>182</td>
<td>188</td>
<td>207</td>
<td>226</td>
</tr>
</tbody>
</table>


Private capital from the U.S. to the U.K. very nearly kept pace with the stream of transferred interests and profits in the reverse direction. But in 1952 the outflow of private capital from the U.S.
declined sharply, and in 1953 private capital to the value of 48 million dollars was repatriated to the U.S. In 1954 the process of repatriation was arrested, but the net outflow of private capital to the U.K. was negligible. A substantial proportion of the outflow of private capital from the U.S. consisted of portfolio investment. Apart from the exceptional period 1946 to 1948 when Britain was receiving the American Loan, the outflow of long-term government capital from the U.S. was uncertain and erratic.

Income transferred to the U.S. rose steadily throughout the period; on private account it more than doubled between 1946 and 1954. Over the whole period the net outflow of long-term private capital from the U.S. totalled 381 million dollars, as against 867 million dollars received by U.S. private investors. This gap measures in an accounting sense the net cost in terms of dollars of U.S. private long-term investment to the U.K. Receipts by the U.S. government rose very sharply from 3 million in 1950 to 88 million dollars in 1951, as interest became payable on the British Loan.

The average rate of return on U.S. investment in the U.K. was comparable to that of American investment in all areas. The average rate of return on the most important type of investments, namely direct investments, was rather lower for investments in the U.K. than for investments in all areas. In 1950 it was 8.6%; in 1954 it was 8.8%. It is not possible to estimate the average rate of return on portfolio investment in the U.K.; as a close approximation one can estimate this rate for U.S. investment in Western Europe. In 1953, U.S. holdings of non-direct private investment in Western Europe amounted to 1362 million dollars.1 In the same year, income trans-

1 That is, 32 million dollars in foreign dollar bonds, 328 million in foreign currency securities, and 952 million in all other types. See, Survey of Current Business, August 1955.
ferred to the U.S. on "other private" account totalled 42 million dollars. These figures indicate an average rate of return on portfolio investment of 3.1%, i.e. considerably lower than the rate of return on direct investments. Thus for total (i.e. direct and portfolio) private U.S. investment in Britain, the rate of return was probably in the region of 6%. On the basis of the criteria of outflow of capital from the U.S. and inflow of dividends into the U.S., this rate of return is clearly too high to allow American long-term private investment to be a permanent factor making for equilibrium in the U.K.'s balance of payments with the U.S.¹

The average rate of return is, of course, much smaller on U.S. government investments in the U.K. In 1954 it was approximately 1.98%. But in the case of individual countries, it is not an acceptable policy to suggest that public investment should be used as a means of bringing down the average rate of return on all, i.e. public and private, U.S. investments. This consideration holds especially in the case of the U.K. whose indebtedness to the U.S. government during the post-war years was on an unprecedented level. On December 31st 1954 it amounted to 4643 million dollars. As the following table shows, substantial payments to the U.S. will have to be made on the U.K.'s earlier loans.

¹ The large percentage increase in the outflow of U.S. long-term private capital to the U.K. which took place between the early post-war years and the period 1949 to 1951 is misleading; for the outflow of U.S. capital was exceptionally low immediately after the end of the war. In more recent years, i.e. in the period 1952-54, the net outflow of U.S. capital was on the average less than it had been in the period 1946 to 1948.
Table 32.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>56</td>
<td>58</td>
<td>123a</td>
<td>66</td>
<td>65</td>
<td>67</td>
</tr>
<tr>
<td>Interest</td>
<td>92</td>
<td>91</td>
<td>90</td>
<td>89</td>
<td>88</td>
<td>88</td>
</tr>
</tbody>
</table>

a--Includes silver lend-lease, returnable in kind by April 28th 1957, valued at 63 million dollars.

Note: The 51 million dollars unprojected debt service on principal are not included in the table.

If comparison is made between the outflow of long-term private capital from the U.S. to Britain and income received by American investors from their investments in the U.K., it indicates that on the average, over the period 1946-1954, the U.K. had to find 56 million dollars per annum to meet the transfer of income to the U.S. The income transferred included income on all investments, i.e. including investments made before 1946. However, the annual loss of 56 million dollars measures, in an accounting sense, the dollar cost of U.S. private investment to the U.K. during the period 1946 to 1954. The significance of this figure can be judged by comparing it with the average dollar deficit of the U.K. on goods and services account which, over the 1946-1954 period, amounted to 341 million dollars per annum.

Final judgment, however, should be postponed until the contribution of U.S. investment to the British economy has been considered.

The Contribution of U.S. Investment to the British Economy:
(a) Some General Effects.

It is not practicable to consider here in detail the diverse effects of foreign investment on the economy of the receiving nation.
A few remarks may, however, help to place the role of international investment in a more proper perspective. The all-important consideration is whether the U.K.'s economy was strengthened by the influx of American long-term capital.

In the post-war period the most important form of U.S. foreign investment was direct investment. It accounted for about 80% of U.S. private investment in all areas. Further, there was also a very substantial export of intangibles and "know-how". This was in marked contrast with the experience of the 'twenties when two-thirds of private long-term investment took the form of portfolio investment. It consisted of dollar debt, except for some Canadian equity. Now, as has been pointed out, "in American experience portfolio investment abroad has created disposable dollar exchange which foreign borrowers could use with wide latitude". Direct investment, on the other hand, usually finances the export of capital equipment which would not otherwise have been made. If wise use is made of the foreign exchange obtained, portfolio investment is to be preferred to direct investment as a source of dollars; but the former, unlike the latter, is more often devoid of any direct effects on the economy of the receiving country because it does not involve any element of management or control by the foreign investor.

It is not easy to trace the effects of direct investment on, say, industrial efficiency or labour productivity in the receiving country. These direct beneficial effects are normally confined to the country in which direct investment is made. Investment in Europe now forms a much smaller part of the total; about 10% of total private long-term investment.

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1 For a list of the main forms which the export of intangibles has taken, see H. Dernburg, in American Economic Review, May '54, pp. 630-32.
investment made during the period 1947 to 1953 went to OEEC countries. In 1929, about 20% of U.S. investment abroad was located in Europe; by 1954 the proportion fell to 14%. However, Britain did relatively well. Of the direct investment in Europe, the lion's share, namely between 40% to 50%, went to Britain.

Details of the industrial distribution of U.S. private direct investment in the U.K. are given in Table 33 on the following page.

Thus investment in manufacturing in the U.K. in 1950 accounted for 64% of the total; the percentage would have been even higher if petroleum refining was not shown under petroleum but entered under manufacturing. The concentration in manufacturing was stronger than in the pre-war years. The ratio of manufacturing to total investment in Britain was 56% in 1929 and 59% in 1943.

In 1950 the U.K. accounted for 14.1% of all U.S. private direct investments in manufacturing and for 58.1% of those located in Western Europe. In 1954 the corresponding ratios were 14.6% and 57.6%. Official statistics do not show the contribution of American capital to the various sub-sectors of the British economy. The table on the following page, giving details of the distribution of American investment in manufacturing in Western Europe, may, however, be taken as a rough indicator of the distribution of manufacturing investments in the U.K.

American investments in, so to speak, "strategic" or "expanding" sectors strengthened the British economy. An exhaustive discussion of the ways in which foreign investment did so cannot be undertaken here, but two specific aspects of the problem deserve further consideration.
**Table 33.**

**Industrial Distribution of U.S. Direct Investments in the U.K. 1950 and 1954.** (Million Dollars.)

<table>
<thead>
<tr>
<th>Sector</th>
<th>1950</th>
<th>1954a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>847</td>
<td>1245</td>
</tr>
<tr>
<td>Agriculture</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Mining and Smelting</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Petroleum</td>
<td>123</td>
<td>185</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>549</td>
<td>824</td>
</tr>
<tr>
<td>Transport and Public Utilities</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Trade</td>
<td>102</td>
<td>130</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>16</td>
<td>n.a.</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>50</td>
<td>90b</td>
</tr>
</tbody>
</table>

a—preliminary; b—including finance and insurance.

**Table 34.**

**U.S. Direct Investments in Manufacturing Enterprises in Western Europe at the End of 1950.** (Million Dollars.)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Actual</th>
<th>Increase</th>
<th>Since 1936</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing, Total</td>
<td>933</td>
<td>293</td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>64</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Paper and Allied Products</td>
<td>5</td>
<td>n.a.</td>
<td></td>
</tr>
<tr>
<td>Chemicals and Allied Products</td>
<td>74</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Rubber Products</td>
<td>31</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Primary and Fabricated Metals</td>
<td>111</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Machinery, except Electrical</td>
<td>175</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Electrical Machinery,</td>
<td>153</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Equipment and Supplies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor Vehicles and Equipment</td>
<td>192</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>All Other Manufactures</td>
<td>128</td>
<td>51</td>
<td></td>
</tr>
</tbody>
</table>

(B) Effect of U.S. Investment on British Exports.

During the post-war period, one of the chief motives for which foreign investment by the U.S. was undertaken was the desire to obtain overseas sources of materials not available in large quantities in the U.S., or materials the domestic supply of which it was deemed desirable to possess. This motive is reflected in the trade statistics of the U.S. On an overall basis, in the period 1946 to 1950, about a quarter of the imports of the U.S. was supplied by American controlled enterprises abroad. Alternatively, about a third of the earnings of direct investment companies abroad resulted from sales in the U.S. market.1 In 1950, American controlled companies in the fields of agriculture, mining in the Western Hemisphere, petroleum production, and paper and pulp production in Canada, exported goods worth 2500 million dollars to the U.S.2

An article by J.H. Dunning3, makes possible a closer examination of the contribution of U.S. private investment to the exports of the U.K. The table on the following page is reproduced from Dunning's article: it shows the export record of industries in which American investment has been considerable.

In overall figures the industries listed in the following table exported goods worth £200 million; if it is assumed that these industries were American controlled to an extent of 50%, total exports directly attributable to direct U.S. investments were worth about £104 million, or over 291 million dollars. The impressive export record of these industries can be attributed to American influence; for as it is pointed out, "quite a number of U.S. branch concerns are now

1 Foreign Investment Census of the U.S. 1950, op.cit., p.2.
2 ibid., pp.28-9.
Table 35.

Selected British Industries where U.S. Influence is Marked:

Production and Trade Statistics.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Machinery</td>
<td>1.3</td>
<td>34.4</td>
<td>6.4</td>
<td>0.5</td>
<td>12.2</td>
</tr>
<tr>
<td>Agric. Tractors</td>
<td></td>
<td>0.4</td>
<td>0.9</td>
<td>0.5</td>
<td>42.9</td>
</tr>
<tr>
<td>Agric. Machinery</td>
<td>4.5</td>
<td>122.4</td>
<td>0.5</td>
<td>3.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Track-laying equipment</td>
<td>--</td>
<td>9.4</td>
<td>0.2</td>
<td>a</td>
<td>--</td>
</tr>
<tr>
<td>Earth-moving equipment</td>
<td>1.1</td>
<td>32.7</td>
<td>0.2</td>
<td>2.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Refrigerators</td>
<td>1.2</td>
<td>16.3</td>
<td>0.2</td>
<td>0.2</td>
<td>ngl x 7.8</td>
</tr>
<tr>
<td>Domestic Electric washing machines</td>
<td>1.1</td>
<td>18.6</td>
<td>--</td>
<td>ngl</td>
<td>ngl</td>
</tr>
<tr>
<td>Petroleum Refining equipment</td>
<td>ngl</td>
<td>74.5</td>
<td>n.a.</td>
<td>n.a.</td>
<td>ngl 2.7</td>
</tr>
<tr>
<td>Industrial Instrum.</td>
<td>2.5</td>
<td>20-25c</td>
<td>n.a.</td>
<td>2.7</td>
<td>ngl 8.5</td>
</tr>
<tr>
<td>Non-Engineering:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abrasives</td>
<td>2.6</td>
<td>15-20c</td>
<td>0.6</td>
<td>2.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Refined Petroleum</td>
<td>7.7</td>
<td>280.4d</td>
<td>40.8</td>
<td>87.2</td>
<td>2.8</td>
</tr>
<tr>
<td>P.V.C. Plastic Materials</td>
<td>--</td>
<td>9.0c</td>
<td>--</td>
<td>ngl</td>
<td>--</td>
</tr>
<tr>
<td>Synthetic Detergents</td>
<td>--</td>
<td>35-40c</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Antibiotics, sulphanides</td>
<td>--</td>
<td>12-15c</td>
<td>--</td>
<td>n.a.</td>
<td>--</td>
</tr>
<tr>
<td>Carbon, black</td>
<td>2.0</td>
<td>0.6</td>
<td>1.9</td>
<td>--</td>
<td>0.5</td>
</tr>
<tr>
<td>Total</td>
<td>22.3</td>
<td>690.0c</td>
<td>44.9</td>
<td>107.8</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note: Including U.K. firms manufacturing under U.S. licence.

a--Classified for this year under agricultural tractors.
b--Although the proportion of output produced by U.S. firms is small, there is a marked American impact which takes the form of engineering and designing knowledge passed on by refining contract.
c--Unofficial statistics derived from Trade Association data.
d--Figures for 1953.
e--Approximate.
ngl--negligible.
n.a.--not available.

manufacturing at costs from one third to one half below those of their parent companies, especially where labour costs as a proportion of total costs are important.\(^1\) Another confirmation of the American influence is the fact that the pre-war export record of these industries can stand no comparison with that of the post-war years. This is made abundantly clear by the figures in the table: exports of the industries listed were about £5 million in 1938, whereas in 1954 they exceeded £200 million. The average amount exported by these industries is shown in the following table; it was much higher than that of British industry as a whole. In fact, most exports which expanded greatly between 1938 and the post-war period were in fields in which American capital played an important part.\(^2\)

The exports of these British industries before the war were 3\% of the exports of the corresponding American industries: by 1954 the ratio was no less than 40\%.\(^3\) Further, companies established since the end of the war make a considerably larger contribution to British exports than those established before the war: the former exported about 50\% of their output, whereas the latter exported only 35\%.\(^4\)

The contribution of U.S. direct investments in Britain to exports of the U.K. appears to have been substantial. However, in assessing this contribution there is an important qualification. This is that only a small part of those exports found its way to the U.S. market. It is therefore difficult to say what amount of dollars was obtained by the U.K. through the export of American owned subscri-

\(^1\) Dunning, op.cit., p.27.
\(^2\) op.cit., p.24.
\(^3\) op.cit., p.24.
\(^4\) op.cit., p.25.
Table 36.
Exports of American Subsidiaries, 1953-54: based on a Sample of 101 Firms in which the Average American Holding is 75%.

<table>
<thead>
<tr>
<th>% Output Exported</th>
<th>Engineering Firms</th>
<th>Non-Engineering Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>% of Total</td>
</tr>
<tr>
<td>6-20</td>
<td>4</td>
<td>7.3</td>
</tr>
<tr>
<td>21-40</td>
<td>12</td>
<td>21.8</td>
</tr>
<tr>
<td>41-60</td>
<td>23</td>
<td>50.9</td>
</tr>
<tr>
<td>61-80</td>
<td>11</td>
<td>20.0</td>
</tr>
<tr>
<td>81-100</td>
<td>5</td>
<td>9.1</td>
</tr>
</tbody>
</table>

Average Exported by an Engineering Subsidiary: 48%.
Average Exported by a Non-Engineering Firm: 35%.

Source: Dunning, op.cit., p.25.

diaries. Only a very small proportion of U.S. investment in Britain was in raw-material producing industries which export a large part of their output to the U.S. But, in a negative sense, the exports of U.S. firms in Britain may have resulted in dollar gains: for a considerable part of these exports went to sterling area countries which would have had to obtain the goods from dollar sources in the absence of similar goods being produced by American companies in Britain.

(C) Effect of American Investment on British Imports.

The effects of U.S. investment on British imports are twofold. First, foreign investment, like all investment, is inflationary, and is likely to lead to an increase in imports. In the case of U.S., or any foreign, investment, the increase in imports may be larger than usual because investment is likely to be in those industries
### Table 37.

New and Greatly Expanded Exports of the U.K.\(^a\), 1938, 1948 and 1953.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>1948</th>
<th>1953</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEW EXPORTS(^b)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radar and navigational equipments</td>
<td>2,265</td>
<td>10,071</td>
</tr>
<tr>
<td>Television equipment and tubes</td>
<td>55</td>
<td>842</td>
</tr>
<tr>
<td>Industrial radio-frequency equip.</td>
<td>64</td>
<td>174</td>
</tr>
<tr>
<td>Tape recorders</td>
<td>--</td>
<td>312</td>
</tr>
<tr>
<td>Recording tapes</td>
<td>--</td>
<td>104</td>
</tr>
<tr>
<td>Floor polishers</td>
<td>--</td>
<td>706</td>
</tr>
<tr>
<td>Electric hair clippers and dry shavers</td>
<td>518</td>
<td></td>
</tr>
<tr>
<td>Combine harvesters</td>
<td>--</td>
<td>3,196</td>
</tr>
<tr>
<td>Fork-lift trucks</td>
<td>--</td>
<td>1,622</td>
</tr>
<tr>
<td>Diesel locomotives</td>
<td>--</td>
<td>870</td>
</tr>
<tr>
<td><strong>Nylon:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women's stockings</td>
<td>--</td>
<td>4,303</td>
</tr>
<tr>
<td>Other knitted goods</td>
<td>--</td>
<td>2,356</td>
</tr>
<tr>
<td><strong>Drugs(^r)</strong></td>
<td>2,048</td>
<td>11,390</td>
</tr>
<tr>
<td>Synthetic detergents</td>
<td>--</td>
<td>2,597</td>
</tr>
<tr>
<td>Prefabricated buildings</td>
<td>--</td>
<td>3,815</td>
</tr>
<tr>
<td>Permanent-waving kits</td>
<td>64</td>
<td>161</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commodity</th>
<th>1938</th>
<th>1953</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VIRTUALLY NEW EXPORTS(^c)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tracklaying tractors</td>
<td>1</td>
<td>3,315</td>
</tr>
<tr>
<td>Oil drilling machin.</td>
<td>--</td>
<td>2,547</td>
</tr>
<tr>
<td>Oil refining machin.</td>
<td>--</td>
<td>2,258</td>
</tr>
<tr>
<td>Air-conditioning machines</td>
<td>10(^x)</td>
<td>1,797</td>
</tr>
<tr>
<td>Mechanical lighters</td>
<td>7</td>
<td>745</td>
</tr>
<tr>
<td>Cash registers</td>
<td>2</td>
<td>575</td>
</tr>
<tr>
<td>Alarm clocks</td>
<td>1</td>
<td>473</td>
</tr>
<tr>
<td>Fluorescent lamps</td>
<td>--</td>
<td>438</td>
</tr>
<tr>
<td>Dictating machines</td>
<td>1(^x)</td>
<td>435</td>
</tr>
<tr>
<td>Hearing aids</td>
<td>--</td>
<td>169</td>
</tr>
<tr>
<td>Foam rubber upholstery</td>
<td>--</td>
<td>817</td>
</tr>
<tr>
<td><strong>GREATLY EXPANDED EXPORTS(^d)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic refrigerators</td>
<td>42(^x)</td>
<td>5,991</td>
</tr>
<tr>
<td>Agricultural tractors</td>
<td>513</td>
<td>37,170</td>
</tr>
<tr>
<td>Laundering machin.</td>
<td>149</td>
<td>5,697</td>
</tr>
<tr>
<td>Accounting machin.</td>
<td>104</td>
<td>3,584</td>
</tr>
<tr>
<td>Earth-moving equip.</td>
<td>681</td>
<td>16,147</td>
</tr>
<tr>
<td>Plastic materials</td>
<td>377</td>
<td>16,113</td>
</tr>
<tr>
<td>Platinum/palladium</td>
<td>316</td>
<td>11,253</td>
</tr>
<tr>
<td>Refined petroleum</td>
<td>2,854</td>
<td>71,118</td>
</tr>
<tr>
<td>Aircraft</td>
<td>5,400</td>
<td>64,600</td>
</tr>
</tbody>
</table>

---

\(^a\) In 1953, exports listed in this table accounted for 11% of all U.K. exports.

\(^b\) This group includes goods not produced on a commercial scale in the U.K. before the war.

\(^c\) This group includes exports the value of which was below £10,000 in 1938 and above £400,000 in 1953.

\(^d\) The 1953 value of these was more than £3 million and 20 times the corresponding 1938 value.

\(^r\) penicillin, other anti-biotics, sulphonamides, anti-histamines and anti-paludics.

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Source: Board of Trade Journal, 1st May, 1954.
in which the U.S. has a lead; that is, in industries for which machinery, other equipment and replacement parts will have to be imported from the U.S.

Secondly, there is a favourable aspect: investment may be import-saving in the sense that goods are produced at home which otherwise would have been imported. Such import substitution is extremely likely to be dollar saving since most American investments in Britain were in industries in which the U.S. used to have a virtual monopoly.

To take first the increase in imports. On a global basis, some estimates have been made by the U.S. Department of Commerce for the year 1950. It is stated that an examination of the export data for a large number of commodities, particularly metal manufactures and various types of machinery, equipment and parts, indicates that exports from the U.S. to direct investment companies abroad were not more than 1500 million dollars. Assuming that the share of Britain in those imports from the U.S. was proportional to her share in total direct investment in 1950, then U.S. direct investment companies in Britain imported about 95 million dollars from the U.S. in that year. This estimate is very rough but it may serve to indicate the order of increase in U.K. dollar imports as a result of the operation of U.S. direct investment companies in Britain.

For obvious reasons it is difficult to obtain even a rough estimate of the dollars saved on imports through production at home of goods which would otherwise have been imported from the U.S. But in respect of manufacturing in the petroleum industry, it is fairly certain that, as a result of U.S. investment, the dollar bill of the U.K. was considerably reduced.

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1 Foreign Investments of the U.S., Census of 1950, op. cit., p. 29.
2 In 1950 direct U.S. investments in all countries aggregated 13550 million dollars; direct investments in the U.K., 847 million dollars, accounted for 6.3% of the total.
Before the war 70% of the total consumption of the products listed in Table 35 were imported chiefly from the U.S.: in 1954, with the chief exception of refined petroleum, the U.K. was a net exporter of most of the commodities shown. Indeed, it is believed that the Fawley Refinery saved Britain over 150 million dollars.1 In general, imports of goods produced by industries included in Table 35 showed some increase between 1938 and 1954, but hardly larger than the change in the price level during the period.

These considerations probably exaggerate the total dollar import saving due to U.S. direct investments in Britain. The relevant consideration is how much of these goods would have been imported from the dollar area had direct investment in these industries not taken place. But it is not possible to answer this question in a meaningful manner because, i) the output of these industries would have increased more than that of British industry as a whole, even without American participation; for these industries are essentially new ones. ii) Total domestic requirements for the products of these industries would have probably been less than they actually were if their domestic production had not expanded as much as it did. It cannot therefore be said that the 60% of the output of American owned firms which was not exported, i.e. about £330 million, was all dollar import saving. But the large volume of American goods obtained by the U.K. directly from U.S. companies at home explains in part the record of Britain in maintaining American imports at a comparatively low level as compared with the pre-war period.

Conclusion.

The basic assumption of this chapter was that the U.S. would enjoy a trade surplus for a long time to come. On this assumption

1 Dunning, op.cit., p.23.
it followed that if foreign investment was to continue to make a positive contribution to the maintenance or achievement of international payments equilibrium, an excess of capital outflow from the U.S. over the inflow of interest and dividends into the U.S. was essential. The conditions necessary for this outcome were not fulfilled during the post-war period, and are unlikely to be fulfilled in the future. The main obstacle appears to be the high rate of return which seems to be required to attract American long-term private capital abroad on a large scale.

Considerations of this kind have prompted many economists to suggest that a more fruitful policy would be one of investment by the rest of the world, and particularly by Britain, in the United States. Although this subject falls outside the scope of this thesis, it should be pointed out that foreign investment by the rest of the world in the U.S. involves a temporary loss of foreign exchange. A balance of payments surplus is a necessary precondition of foreign investment on a substantial scale. In the post-war period, the rest of the world in general and the U.K. in particular seldom achieved such a dollar surplus.

This conclusion on international investment as a permanent factor making for equilibrium in international payments must be kept distinct from the conclusions which emerge when the role of foreign investment in a given period is considered. On the basis of comparison between the outflow of U.S. long-term private investment to the U.K. and the inflow of transferred earnings on American private investment in Britain, the U.K. was, during the period 1946

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This is one of the conclusions of G.E. Maxcy, See: The Dollar Shortage, Seven Years After, in Yorkshire Bulletin of Economic and Social Research, August 1953, p.105.
to 1954, a loser to the extent of about 50 million dollars per annum. In this respect private investment sadly disappointed the hopes which had been placed upon it at the end of the Second World War. But, it is suggested, this criterion offers too narrow a basis for judging the contribution of U.S. long-term investment to the British balance of payments. During the post-war period, American capital invested in subsidiaries in Britain led both to an expansion of the U.K.'s exports and a reduction in Britain's dependence on imports from dollar sources.

Foreign investment involves the granting of credit; that is, one of its chief functions is to help a country during a transitional, and, by definition, difficult period. In the context of a discussion of balance of payments problems, this should be regarded as the true function of international investment. If the credit is wisely used, the economy will be in a better position to face the difficulties that lie ahead. All evidence indicates that American investment in the U.K. during the post-war period made a positive contribution to the strengthening of the British economy.
CHAPTER 6. ASPECTS OF UNITED STATES COMMERCIAL POLICY.

SECTION A. THE TARIFF.

A Comparison with the Pre-War Situation.

On a comparative basis it is difficult to argue that American import restrictions were responsible for the British dollar payments unbalance during the post-war period. For such a view would imply either that the dollar unbalance was even more serious in the 'thirties than in the post-war years or that U.S. import restrictions were tightened in the intervening period.

Neither of these views can be accepted as a statement of general validity. Though, no doubt it may be argued that the formal payments equilibrium of the 'thirties was partially achieved at the expense of employment, the fact remains that the dollar situation was never as acute as in many post-war years.

On the other hand, it is fairly certain that, compared with the 'thirties, the U.S. now pursues a much more liberal import policy. It is difficult, and perhaps impossible, to say how restrictive the present tariff level is; but all criteria indicate that the import restrictions of the post-war period compare favourably not only with those in effect during the 'thirties, but also with those of the late 'twenties. This is brought out in Table 38 which compares the ratios of duties to total free and dutiable imports, and to dutiable imports only over the last thirty years. The table appears overleaf.

The average ad valorem duty on all imports was reduced from nearly 15% in 1936 to 1940 to below 5.5% in 1953, and the average rate on dutiable imports only from 38% to just over 12%. The reduction has been a substantial one. But the difference in the restrictive effect of the two levels of duties is not measured only by the difference in these ad valorem averages. Probably it was much
Table 38.

Ratio of Calculated Duties to (a) Total Free and Dutiable Imports, and (b) Dutiable Imports Only. (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>(a)</th>
<th>(b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1926-30 ave.</td>
<td>13.70</td>
<td>40.06</td>
</tr>
<tr>
<td>1931-35 ave.</td>
<td>18.45</td>
<td>50.02</td>
</tr>
<tr>
<td>1936-40 ave.</td>
<td>14.96</td>
<td>37.87</td>
</tr>
<tr>
<td>1941-45 ave.</td>
<td>10.92</td>
<td>32.13</td>
</tr>
<tr>
<td>1946-50 ave.</td>
<td>6.67</td>
<td>16.03</td>
</tr>
<tr>
<td>1952</td>
<td>5.30</td>
<td>12.69</td>
</tr>
<tr>
<td>1953</td>
<td>5.42</td>
<td>12.02</td>
</tr>
</tbody>
</table>


smaller; this is indicated in part by the fact that the percentage (in value) of commodities entering the U.S. free of duty declined from 60.5% in 1936-40 to slightly below 55% in 1953.

The decline in the average ad valorem rate of duty was general, but not uniform for all industrial groups. It did not benefit all countries to the same extent. For all areas the ratio of duties to dutiable imports was nearly 38% in the period 1936-40; in 1953 it stood at 12%. But the reduction on the imports of Western European countries was on the whole more moderate. (See Table 39.) As a result, the ratio of calculated duties was higher for manufacturing countries: in 1953 it was 18.7% for the U.K., 17.6% for France, 17.4% for Germany, and as much as 27.8% for Switzerland.

The reduction in the average rate of duty was not mainly due to changes in the composition of imports. Estimates by the Tariff
### Table 39.

**Imported Dutiable Merchandise Entered for Consumption: Average Rate of Duty by Tariff Schedule in 1938 and 1953.**

<table>
<thead>
<tr>
<th>Description</th>
<th>1938 (%)</th>
<th>1953 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chemicals, Oils and Paints</td>
<td>37</td>
<td>13</td>
</tr>
<tr>
<td>2. Earths, Earthenware and Glassware</td>
<td>45</td>
<td>23</td>
</tr>
<tr>
<td>3. Metals and Manufactures</td>
<td>32</td>
<td>12</td>
</tr>
<tr>
<td>4. Wood and Manufactures</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>5. Sugar, Molasses and Manufactures</td>
<td>48</td>
<td>10</td>
</tr>
<tr>
<td>6. Tobacco and Manufactures</td>
<td>68</td>
<td>20</td>
</tr>
<tr>
<td>7. Agricultural Products and Provisions</td>
<td>35</td>
<td>9</td>
</tr>
<tr>
<td>8. Spirits, Wines and other Beverages</td>
<td>58</td>
<td>24</td>
</tr>
<tr>
<td>9. Cotton Manufactures</td>
<td>39</td>
<td>22</td>
</tr>
<tr>
<td>10. Flax, Hemp, Jute and Manufactures</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>11. Woolen Manufactures</td>
<td>68</td>
<td>22</td>
</tr>
<tr>
<td>12. Silk Manufactures</td>
<td>54</td>
<td>30</td>
</tr>
<tr>
<td>13. Rayon and other Synthetic Textile Manufactures</td>
<td>38</td>
<td>20</td>
</tr>
<tr>
<td>14. Pulp, Paper and Books</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>15. Sundries</td>
<td>31</td>
<td>20</td>
</tr>
</tbody>
</table>

**Free List Commodities Taxable under Revenue Act, 1932, and Subsequent Acts, Dutiable under Section 466 of Tariff Act, 1930.**

<table>
<thead>
<tr>
<th>Description</th>
<th>1938 (%)</th>
<th>1953 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>29</td>
<td>4</td>
</tr>
</tbody>
</table>

---

*a*—Includes articles on which countervailing and anti-dumping duties are assessed. Free list commodities taxable under Revenue Acts are excluded from various schedules. Percents represent average ad valorem rate or ratio of duties to values of dutiable merchandise.

**Source:** Statistical Abstract of the U.S.
Table 40.
Average Ad Valorem Equivalent of Rates of Duty in Effect on Specific Dates, Based on Imports in 1952. (Million Dollars and %)

<table>
<thead>
<tr>
<th>Tariff Schedule</th>
<th>US dutiable imports 1952 (Mm.)</th>
<th>Average ad valorem equivalent based on rates in effect:</th>
<th>Reduction in rates from:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
<td>On any agreement</td>
<td>On Jan 1, 1945</td>
</tr>
<tr>
<td>1. Chemicals, oils and paints</td>
<td>164</td>
<td>25.1</td>
<td>20.0</td>
</tr>
<tr>
<td>2. Earths, earthenware and glassware</td>
<td>118</td>
<td>40.6</td>
<td>36.7</td>
</tr>
<tr>
<td>3. Metals and manufs.</td>
<td>901</td>
<td>23.7</td>
<td>18.9</td>
</tr>
<tr>
<td>4. Wood and Manufs.</td>
<td>215</td>
<td>10.9</td>
<td>7.5</td>
</tr>
<tr>
<td>5. Sugar, molasses and manufactures</td>
<td>385</td>
<td>25.8</td>
<td>13.5</td>
</tr>
<tr>
<td>6. Tobacco and manufs.</td>
<td>83</td>
<td>45.6</td>
<td>34.7</td>
</tr>
<tr>
<td>7. Agricultural products and provisions</td>
<td>774</td>
<td>16.2</td>
<td>12.5</td>
</tr>
<tr>
<td>8. Spirits, wines and other beverages</td>
<td>127</td>
<td>81.4</td>
<td>41.6</td>
</tr>
<tr>
<td>9. Cotton manufs.</td>
<td>42</td>
<td>36.8</td>
<td>30.0</td>
</tr>
<tr>
<td>10. Flax, hemp, jute and manufactures</td>
<td>162</td>
<td>12.2</td>
<td>9.0</td>
</tr>
<tr>
<td>11. Wool and manufs.</td>
<td>462</td>
<td>36.7</td>
<td>30.2</td>
</tr>
<tr>
<td>12. Silk manufactures</td>
<td>29</td>
<td>58.8</td>
<td>52.7</td>
</tr>
<tr>
<td>13. Rayon and other synthetic textile manuf.</td>
<td>35</td>
<td>32.8</td>
<td>31.0</td>
</tr>
<tr>
<td>14. Paper and books</td>
<td>39</td>
<td>20.4</td>
<td>15.2</td>
</tr>
<tr>
<td>15. Sundries</td>
<td>294</td>
<td>31.8</td>
<td>26.5</td>
</tr>
</tbody>
</table>

Note: This table is different from table 39 in that it eliminates changes in the tariff level which are due to changes in the composition of imports. Thus it shows at what rate commodities actually imported in 1952 would have been taxed if they had been imported in 1945 or before the Trade Agreements Programme came into operation.

Source: U.S. Tariff Commission; Effects of Trade Agreements Concessions on United States Tariff Levels Based on Imports in 1952.
Washington, September 1953.
Commission based on rates effective on three different dates, but for imports during 1952, also show large reductions in duties. (See Table 40 on the previous page.) Average ad valorem equivalent of duties collected to total dutiable imports was 24.4% in 1952 using rates effective before the inauguration of the trade agreements era, 17.9% using rates effective on January 1st 1945, and 12.2% using those effective on January 1st 1953. Between the pre-agreement period and 1953 the average import duty on chemicals was reduced by 51%, on spirits and wines by 72% and on metals and manufactures by 49%.

The effect of these concessions on the price of American finished manufactures can be gathered from Graph 1 on the following pages. This graph shows that since the period 1935-39 the unit value of imports of finished manufactures, including duties, from the U.K. and other Western European countries has risen considerably less than the unit value of imports of finished manufactures excluding duties.

Thus it cannot be said that for Western European countries, or still less for the rest of the world as a whole, the American tariff is now higher than it was in the 'thirties. In what sense can it be argued that the tariff policy of the U.S. caused or aggravated the dollar unbalance of the post-war period? In the first place it may be possible to contend that because of changed conditions (such as the level of economic activity) the lower tariff of the 'fifties has caused the U.K. a larger loss of exports to the U.S. than did the higher tariff of the 'thirties. For instance, it could be suggested that during a depression the volume of exports is not very sensitive to price changes so that the effects of tariffs on imports are partly superfluous.

However, a second approach seems most relevant to the purpose of the present analysis. It can be argued that, due to changed conditions, such as the loss of non-American sources of supply and the
Graph 1.

UNIT VALUE OF INDEXES OF UNITED STATES IMPORTS OF (A) FINISHED MANUFACTURES AND (B) FINISHED MANUFACTURES INCLUDING DUTIES, 1923-48. 1935-9 = 100.

Switzerland.

UNITED KINGDOM.

FINISHED MANUFACTURES.
FINISHED MANUFACTURES INCLUDING DUTIES.
ALL COUNTRIES.

FINISHED MANUFACTURES.

FINISHED MANUFACTURES INCLUDING DUTIES.

failure of the price of gold to rise with that of other commodities, the U.K. and the non-American world in general have come to rely for their dollar exchange much more than in the 'thirties on merchandise exports to the U.S. In this absolute sense, the existence of the American tariff hampered their efforts to increase their dollar earning imports. The relevant question therefore is how much higher would the exports of the rest of the world, and of Britain in particular, have been in the post-war years had the U.S. adhered to a free trade policy or had her tariffs been lower than they actually were. The following sections are devoted in the main to such an analysis of the restrictive effects of American commercial policy.

The Tariff and the Nature of the U.S. Economy.

It is perhaps an exaggeration to say that nobody knows what would be the effect on imports if the American tariff were withdrawn; it should, however, be common knowledge that the perfect index of the restrictive effect of a tariff has yet to be devised. The defects of existing tariff indexes are too well known to be worth repeating here. It should suffice to mention the conclusive reductio ad absurdum argument: in all the tariff indexes, each commodity is given a weight proportional to the value of actual imports. Thus commodities, the imports of which are really restricted by the tariff, tend inevitably to be given insufficient weight. If all tariffs were sufficiently high to prevent completely the importation of any dutiable goods, a tariff index of zero would result!

However, the preceding consideration does not justify a plea of complete agnosticism. In the first place, the restrictiveness of the tariff of a particular country can to some extent be gathered from the nature of the economy of that country. In the second place,
estimates as to the likely increase in imports in the event of tariff suspension or reduction can be based either on a study of demand and supply conditions for individual groups of commodities, or on evidence relating to the sensitivity of the volume of exports to price changes. Such estimates have in fact been made and will be used at a later stage. But first two general considerations concerning the American tariff deserve special mention:

(a) It is often stressed that imports are essentially marginal and not very important to the U.S. economy. The inference drawn from the statement is that the U.S. could very well do without the exports of other countries. But in the context of the tariff question, an entirely different implication seems very relevant. If tariffs were imposed on goods essential to the U.S. economy, then they could have but a minor effect on the volume of imports; but if, as it is admitted, imports are really marginal and competitive with the home production of the U.S., even a fairly small reduction in the price of imports due to lower tariffs ought to lead to a substantial increase in their volume.\(^1\) It follows that a small reduction in tariffs will have disproportionately large effects on the volume of imports. This point is further reinforced by the fact that there is evidence to show that the U.S. tariff is much higher on competing goods than it is on necessities.\(^2\)

(b) On the other hand, it has been suggested that U.S. imports from Britain and European countries in general are unlikely to expand substantially if tariffs were eliminated.\(^3\) American domestic demand

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3 The argument presented here is one of the central points of D. Hawmhphey's study on American imports, published in 1955 by the Twentieth Century Fund Foundation.
is increasing most rapidly for goods which receive little or no tariff protection; that is to say, domestic demand is increasing fast for the products of industries "in the dynamic sectors of the American economy characterised by mass production methods, rapid technological advance, and enormous sales efforts". In these fields the European exporter is likely to be permanently handicapped. As a larger and larger proportion of the national income is spent on these mass produced goods, the prospects of British and European exports to the U.S., at least in the medium and long run, cannot be bright. The abolition of tariffs may offer temporary relief; but as a permanent solution to the dollar problem its success is much more doubtful.

Tariffs and U.S. Imports from ALL Areas.

Dutiable imports into the U.S. in 1953 from all areas amounted to 4491 million dollars. The average rate of duty, i.e. ad valorem equivalent, on these imports was 12%. A large quantity of these imports is not sensitive to price changes. Table 41 on the following page is compiled from the most authoritative study on the price elasticity of demand for American imports; though the figures given have been derived from inter-war data, there is every reason to expect that, by and large, they will hold true of the post-war period.¹

¹ Estimates by B.A. de Vries of the probable long-term post-war price elasticity of demand for U.S. imports from the U.K. and a number of Western European countries seem to confirm this assertion. For the U.K., de Vries gives a price elasticity of -3.12 in the event of a reduction in import prices and -2.43 in the event of an increase. This elasticity was representative of 52% of the total value of U.S. imports from the U.K. in 1939. For all other countries shown, except Switzerland, price elasticities of demand appear somewhat higher than for the U.K. Source: Price Elasticities of Demand for Individual Commodities imported into the U.S., in IMF Staff Papers, Vol. 1, p.411.
<table>
<thead>
<tr>
<th>Country</th>
<th>1. x</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERP Countries</td>
<td>-1.1</td>
<td>-1.4</td>
<td>-0.9</td>
<td>-2.4</td>
<td>a</td>
</tr>
<tr>
<td>Europe</td>
<td>-0.8</td>
<td>-1.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td>-0.02</td>
<td>-0.7</td>
<td>b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td>-0.8</td>
<td>-0.7</td>
<td>b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overseas Sterling Area</td>
<td>-0.3</td>
<td>-0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Sterling Area</td>
<td>-0.1</td>
<td>-0.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rest of World</td>
<td>-0.2</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.K.</td>
<td></td>
<td></td>
<td></td>
<td>-5.2</td>
<td>-4.2</td>
</tr>
</tbody>
</table>

x
1. Crude and semi-manufactured materials.
2. Crude foodstuffs.
3. Manufactured foodstuffs, excluding alcoholic beverages.
4. Finished manufactures.
5. Finished textile manufactures.

Note: Classification is similar to that of the U.S. Department of Commerce, except that crude and semi-manufactured materials, which are shown separately in official statistics, have been taken together, and two commodities, namely newsprint and burlap, have been transferred from finished manufactures to crude and semi-manufactured materials.

a—The figure represents the arithmetic relationship. The log arithmetic relationship is -2.6.
b—Corrected for imports necessitated by the American drought.


Apart from finished manufactures, most other imports exhibit little responsiveness to price changes. It is even doubtful whether the price elasticity of demand for imports of crude foodstuffs from all areas exceeds unity, since the largest supplier, namely Latin
America, showed an elasticity of only -0.7. As a rule, therefore, in the case of crude and semi-manufactured materials, crude foodstuffs and manufactured foodstuffs, a reduction in the tariff is unlikely to lead to a substantial increase in imports.

In 1953, total U.S. imports of finished manufactures amounted to 2195 million dollars. Of these, 978 million were admitted free, and 1217 million dollars on the payment of duty. It is difficult to estimate the average rate of duty on finished manufactures because average rates are normally compiled, not by economic class, but by tariff schedules. The average rate of duty on the imports from most nations which export chiefly manufactures was in the region of 20%. The average rate of duty on cotton manufactures and wool manufactures is also slightly above 20%. It would seem, therefore, that an average rate of duty of 20% on all dutiable finished manufactures is not a bad estimate. Suppose now that all U.S. tariffs on the imports of finished manufactures were removed. The price elasticity of demand for imports of finished manufactures has been estimated as -2.4. In the event of tariff removal, the volume of imports will therefore rise by 2.4 times 0.2 which equals .48. Since the dollar payments to exporters have remained unchanged (in contrast to, say, the case of currency devaluation), the receipts of foreign exporters will rise by the same proportion, namely 48%. In other words, in the event of tariff abolition, imports of finished manufactures into the U.S. are likely to increase by some 584 million dollars.

Bearing in mind that the above figure covers only the increase in the imports of finished manufactures, and that some expansion in the imports of other commodity groups is likely in the event of tariff abolition, the preceding estimate is not far from the findings of

1 This is medium-term elasticity; see Adler op.cit., pp.44-5.
H.Piquet's detailed study. Piquet's assumptions are, (i) that the suspension of duties will be temporary; (ii) that all duties will be suspended simultaneously; (iii) that conditions similar to those of 1951, i.e. inflationary conditions, will continue; and (iv) that prices will remain constant so that estimated increases in imports, although expressed in values, will in effect indicate increases in physical volume. On these assumption, according to Piquet, the maximum increase in the event of tariff suspension will be 1825 million and the minimum 845 million dollars. If quotas on agricultural imports as well as tariffs were suspended, the increase in imports might range from 1600 to 2600 million dollars.

Now the question is whether such an increase in the flow of dollars to the rest of the world is likely to improve to any marked extent the dollar position of the U.K. Of course, in any case, an increased annual outflow of say, about a thousand million dollars, will go some way towards closing the dollar gap of the rest of the world as a whole.

But given the present pattern of world trade, and that the suspension of the American tariff will not modify that pattern appreciably, the indirect effects of tariff suspension on the U.K. dollar payments position will largely depend on which countries get the lion's share of the benefits accruing from tariff suspension. According to Piquet's estimate, a substantial part of the increase in U.S. imports will come from Sterling Area countries. Taking the minimum figures, in the event of tariff suspension alone, U.S. imports from the U.K. are likely to increase by 114 million, from India by 10 million, from South Africa by 31 million, from New Zealand by 20 million, and from Australia by 45 million dollars. In all, out of a total increase

2 Piquet, op.cit., pp.32-33.
of 845 million dollars, some 38% is likely to come from Sterling Area countries.

Some of the other increase in dollar outflow may still find its way indirectly to the U.K. (chiefly via Western Europe). In fact, dollar area countries which are likely to spend their increased dollar earnings in the U.S. will not contribute more than one third to the total increase in exports to the U.S. In this respect, increased dollar earnings from tariff suspension are likely to make a much greater contribution to the solution of the world dollar unbalance, and particularly to the problems of the U.K., than increased dollar outflow on long-term foreign investment which tended to find its way predominantly to dollar area countries.

Tariffs and Imports from the U.K.

Piquet has estimated that if all U.S. tariffs were suspended, imports from the U.K. might increase by between 114 and 253 million dollars. Before considering in some detail U.K. exports of individual commodities to the U.S., it may be worth while to try to verify the Piquet estimates by using the general price elasticity approach.

According to the official U.S. statistics, imports worth 370 million dollars from the U.K. were subject in 1953 to the payment of an import duty. The average rate of duty, i.e. ad valorem equivalent on all dutiable imports from the U.K., was in that year 18.66%. The Federal Reserve Bank study referred to above found that U.S. elasticity of demand for imports of finished manufactures from the U.K. (namely -5.2), was considerably higher than the same elasticity for imports from Western European countries taken as a whole (namely -2.4). A very large proportion of U.K. exports to the U.S. consist of finished manufactures. Manufactured foodstuffs, with considerably lower
demand elasticities also form an important part of the U.K.'s exports. It may therefore be permissible to apply an elasticity of demand of -4 to the total U.S. imports from the U.K. On the assumption that all American tariffs affecting British exports have been removed, U.S. imports from the U.K. might be expected to increase by about 75%, or by 278 million dollars. This figure is slightly above Piquet's maximum estimated increase; but when it is remembered that some of the British exports would not increase at all if tariffs were abolished, the present guess must be considered as coming surprisingly near to Piquet's estimate.

In conclusion, the value of U.K. exports lost through the U.S. tariffs must be put in the region of 200-250 million dollars. Apart from the psychological effects of a suspension of tariffs, it is very probable that such a move would go a considerable way towards easing the strain on the gold and dollar reserves of the U.K.

However, an overall abolition of tariffs is probably outside the realm of practical possibility. The U.S. is committed to a most favoured nation trade policy (apart from the Philippines Trade Act of 1946, and some special arrangements with Cuba). It cannot thus be expected that she would accord deferential treatment to imports from the U.K.. But it is still quite possible, given that the U.S. wants to strengthen the U.K. and other European countries (for example, as a preliminary to the introduction of currency convertibility), for the U.S. government to suspend tariffs on goods which come chiefly from these countries. Piquet's estimates of the likely increase in imports in the event of such a selective suspension of tariffs appear in Table 42 on the following page. And it is further possible, as Piquet suggests, that the government should stipulate that the suspension of tariffs would apply only to a certain quota of imports, say,
Table 42.

<table>
<thead>
<tr>
<th>Country</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, all countries</td>
<td>4823</td>
<td>3807</td>
<td>2600</td>
<td>421</td>
<td>395</td>
<td>1169</td>
<td>165</td>
</tr>
<tr>
<td>U.K.</td>
<td>326</td>
<td>175</td>
<td>257</td>
<td>138</td>
<td>118</td>
<td>527</td>
<td>77</td>
</tr>
<tr>
<td>France</td>
<td>197</td>
<td>101</td>
<td>137</td>
<td>60</td>
<td>53</td>
<td>67</td>
<td>13</td>
</tr>
<tr>
<td>Germany</td>
<td>189</td>
<td>74</td>
<td>116</td>
<td>36</td>
<td>40</td>
<td>75</td>
<td>9</td>
</tr>
<tr>
<td>Italy</td>
<td>111</td>
<td>72</td>
<td>86</td>
<td>46</td>
<td>47</td>
<td>46</td>
<td>17</td>
</tr>
<tr>
<td>Japan</td>
<td>144</td>
<td>63</td>
<td>155</td>
<td>56</td>
<td>71</td>
<td>164</td>
<td>17</td>
</tr>
<tr>
<td>Total of the five countries</td>
<td>967</td>
<td>485</td>
<td>751</td>
<td>336</td>
<td>329</td>
<td>879</td>
<td>133</td>
</tr>
</tbody>
</table>

(1) Actual dutiable imports, 1951.
(2) Dutiable imports covered by Piquet.
(3) Estimated maximum increase in imports in the event of suspension of all tariffs and quotas, on the assumption that the 20% of dutiable imports not covered in Piquet's book would have the same characteristics as the 80% covered in the study. None of the other figures in the table are so adjusted.
(4) Actual imports included in Piquet's study of which the five countries appearing in the table constitute the principal source.
(5) Estimated increase in imports supplied principally by the five countries, in the event of the suspension of tariffs and quotas.
(6) Estimated allowable increases in imports supplied principally by the five countries with free entry up to 10% of domestic production.
(7) Probable increases in imports principally from the five countries with free entry up to 10% of domestic production.


Note: See text for fuller explanation, pages 179-181.

until imports have accounted for 10% of domestic production. Under these conditions, selective suspension of tariffs might increase imports from all areas by up to 165 million dollars, 81% of which (i.e. 133 million) would be accounted for by the countries which the tariff suspension was designed to help, namely, the U.K., France, Germany and Italy. However, the total increase in imports from the U.K.--
about 75 million dollars—would not suffice to improve the U.K. dollar position substantially.

Even a selected suspension of tariffs may go beyond practical policy. It may not be reasonable to expect the Americans government to make such widespread changes in its commercial policy. It may therefore be worthwhile to look individually at some of the chief dutiable exports of the U.K. to the United States; it is possible that a large part of the benefit of a general suspension of tariffs can be acquired by the removal or reduction of tariffs on some particularly price-sensitive items.

Details of British exports to the U.S. in 1937 and 1953, together with estimated increases in the event of tariff suspension and price elasticities, are given in Table 43 on the following pages.

The actual imports for which Piquet gives estimates of likely increases totalled £79 million in 1953, or about 60% of all dutiable imports from the U.K. Even if it is assumed that the increases are representative of only the commodities actually listed separately in Table 43, the total increases in U.S. imports from Britain might range from £20 million minimum to £49 million maximum, giving an average of about £34 million. Thus it would seem that even a suspension of tariffs on the products studied will bring Britain an additional 95 million dollars.

Lastly, it must not be forgotten that Piquet's estimates were based on the assumption that the suspension of tariffs would be temporary. If it was understood that the removal of tariffs would be permanent, an appreciably larger expansion in imports could be expected.

Column 6 of Table 43 gives price elasticities of demand for the chief individual dutiable imports of the U.S. from Britain. Though no unerring authority can be attributed to them, the most striking
Table 43.


<table>
<thead>
<tr>
<th>Type of Export</th>
<th>Actual Exports (£000) in 1937</th>
<th>Estimated Increase in Exports</th>
<th>Increase in Exports 1953 (£000)</th>
<th>Price Elasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Cocoa Preparations</td>
<td>nss</td>
<td>1805</td>
<td>0-10</td>
<td>0.86</td>
</tr>
<tr>
<td>Spirits</td>
<td>6562</td>
<td>21146</td>
<td>0-10</td>
<td>0.96</td>
</tr>
<tr>
<td>Sugar Confections</td>
<td>20</td>
<td>574</td>
<td>25-50</td>
<td>9.53</td>
</tr>
<tr>
<td>Wool Noils</td>
<td>486</td>
<td>3763</td>
<td>10-25</td>
<td>0.84</td>
</tr>
<tr>
<td>Raw Wool</td>
<td>1001</td>
<td>816</td>
<td>50-100</td>
<td>1.60</td>
</tr>
<tr>
<td>Apparel, Wool: Knitted, Netted or Crocheted</td>
<td>nss</td>
<td>2233</td>
<td>25-50</td>
<td>731-1462</td>
</tr>
<tr>
<td>Stockings and Hose</td>
<td>nss</td>
<td>691</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photographic and Cine. Instruments and Lenses</td>
<td>nss</td>
<td>742</td>
<td>50-100</td>
<td>371-742</td>
</tr>
<tr>
<td>Electrical Goods and Apparatus</td>
<td>52</td>
<td>1463</td>
<td></td>
<td>2.83</td>
</tr>
<tr>
<td>Leather Boots and Shoes</td>
<td>144</td>
<td>1612</td>
<td></td>
<td>5.40</td>
</tr>
<tr>
<td>Leather, all Sorts</td>
<td>1362</td>
<td>2481</td>
<td></td>
<td>5.81</td>
</tr>
<tr>
<td>Sewing Machines and Parts</td>
<td>30</td>
<td>266</td>
<td>50-100</td>
<td>3.14</td>
</tr>
<tr>
<td>Textile Machinery</td>
<td>350</td>
<td>1525</td>
<td>50-100</td>
<td>3.14</td>
</tr>
<tr>
<td>Iron and Steel Manufactures</td>
<td>1910</td>
<td>6032</td>
<td></td>
<td>3.14</td>
</tr>
<tr>
<td>Aluminium and Aluminium Alloys</td>
<td>43</td>
<td>4750</td>
<td>10-25</td>
<td>5.19</td>
</tr>
<tr>
<td>Copper and Copper Alloys</td>
<td>41</td>
<td>1450</td>
<td>10-25</td>
<td>2.17</td>
</tr>
<tr>
<td>Tin and Tin Alloys</td>
<td>1524</td>
<td>4874</td>
<td>25-100</td>
<td>2.17</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Zinc and Zinc Alloys</td>
<td>30</td>
<td>349</td>
<td>10-25</td>
<td>35-87</td>
</tr>
<tr>
<td>Pottery, Glass, Abrasives</td>
<td>nss</td>
<td>3515</td>
<td>100-300</td>
<td>3515-1045</td>
</tr>
<tr>
<td>Silk and Manufactures</td>
<td>235</td>
<td>410</td>
<td>25-50</td>
<td>103-205</td>
</tr>
<tr>
<td>Vehicles, Air</td>
<td>13</td>
<td>1145</td>
<td>10-25</td>
<td>115-286</td>
</tr>
<tr>
<td>Vehicles, Road Mechanical</td>
<td>123</td>
<td>13421</td>
<td>25-50</td>
<td>3355-6710</td>
</tr>
<tr>
<td>Non-Mechanical, chiefly Bicycles</td>
<td>18</td>
<td>3765</td>
<td>50-100</td>
<td>1883-3765</td>
</tr>
<tr>
<td>Woollen and Worsted Manufactures</td>
<td>1610</td>
<td>11329</td>
<td>50-100</td>
<td>5665-11325</td>
</tr>
<tr>
<td>Carpets, Rugs (Wool or Wool-Mixed)</td>
<td>nss</td>
<td>714</td>
<td>25-100</td>
<td>179-714</td>
</tr>
<tr>
<td>Printed Books</td>
<td>521</td>
<td>1310</td>
<td>nil</td>
<td></td>
</tr>
<tr>
<td>Jewellery</td>
<td>163</td>
<td>607</td>
<td>50-100</td>
<td>304-607</td>
</tr>
<tr>
<td>Musical Instruments</td>
<td>nss</td>
<td>732</td>
<td>25-50</td>
<td>183-366</td>
</tr>
<tr>
<td>Toys of All Kinds</td>
<td>31</td>
<td>566</td>
<td>50-100</td>
<td>283-566</td>
</tr>
</tbody>
</table>

**Note:** The contents of each category may not be identical for each column, but they are sufficiently close for general comparisons. nss—Not separately specified.
a--The 1953 figure includes agricultural tractors.

**Sources:** Columns 2 and 3—Annual Statement of Trade of the United Kingdom, 1938 and 1953, Board of Trade. Column 4—H.S. Piquet, Aid Trade and the Tariff, Washington, 1953. Piquet's estimates are based on trade figures in 1951. Column 5—This is column 4 multiplied by column 3. Column 6—They are based on estimates of the effect on imports of a 50% reduction in the 1939 U.S. tariffs. These estimates have been given in a publication by the Tariff Commission entitled, Post-War Imports and Domestic Production of Major Commodities, Washington 1945. These estimates have been expressed in the form of elasticities of demand by R.A.de Vries, Price Elasticities of Demand for Individual Commodities Imported into the U.S., I.M.F. Staff Papers, Vol.1, page 397ff.
feature is that for most of the important British exports (with the exception of whisky) high price elasticities have been recorded. For instance, woollen and worsted exports appear to have an elasticity of -5. This would seem to indicate that the American tariff is predominantly imposed on price sensitive imports from the U.K.

The reaction of U.S. industries, in the event of a substantial increase in imports resulting from tariff concessions, cannot be predicted with any certainty. Evidence of another type suggests that British exporters, at least, will be able to sell their products in the American market if the U.S. tariff is substantially reduced.

The restrictive effect of the American tariff can be assessed by comparing the volume of British and American exports to third countries. However, a post-war comparison will not reflect accurately their competitive strength because United States goods have been subjected to widespread discrimination.

But the pre-war figures indicate that the United Kingdom more than held its own in the export of such commodities as shoes, cotton cloth, cotton yarn, woollen and worsted tissues, rayon and sugar manufactures. However, in spite of these successes of British and European manufactures in third markets, exports of these commodities failed to penetrate into the American market on any large scale. Imports of footwear into the U.S. constituted only 0.6% of her total consumption; imports of cotton cloth were 1.4%, of cotton yarn 0.05%, of woollen and worsted cloth 2.1% and of rayon yarn only 0.5% of total domestic consumption.¹

Again, in 1937 the total volume of exports from the U.S. was substantially less than the total volume of exports from the U.K. for a large number of products. They included: beer, linoleum, coke, hosiery, cigarettes, rayon products, cotton yarn, leather

footwear, woollen and worsted cloth, margarine, cement, electric lamps, biscuits, matches, rubber tyres and soap. But U.K. exports to the U.S. were in every case a very small proportion of her total exports. In the case in which they were highest, namely hosiery, they represented no more than 10% of her total exports of that commodity. As a rule the proportion was much lower.¹ According to the author of the article from which the preceding figures were derived, the explanation of this phenomenon is to be found, at least in part, in the high American tariff which offset Britain's comparative advantage in every case except coke, cement and footwear.²

**Conclusion:**

The main conclusion is that even the reduced U.S. tariff acted throughout the post-war period as an effective deterrent to imports. It is difficult to estimate what increase in imports resulted from the post-war tariff concessions at Geneva, Annecy and Torquay, but it does not appear to have been large. For in the first place, the reductions in tariffs have been limited in scope. For instance, the value of all imports affected by tariff concessions at Torquay, was, on a 1949 basis, about 420 million dollars, 70 million dollars of which were in the category of finished manufactures;³ the immediate value to all countries of this reduction in U.S. tariffs has been estimated at about 20-30 million dollars.⁴

² op.cit., p.704. Comparative advantage here is measured in terms of output per worker in each industry.
³ Late in 1955 the U.S. government published a list of 934 items on which she would be prepared to negotiate tariff concessions at the GATT meeting in January 1956. These items represented imports worth about 1800 million dollars in 1954.
⁴ Adler and others, op.cit., p.56.
In the second place, the U.S. government did not exercise to the fullest possible extent the power granted to her to reduce tariffs under Trade Agreements Legislation. For instance, between 1945 and 1953, the duty on imports valued at 1357 million dollars in 1952 was not reduced at all.¹

Thirdly, the tariff reductions were mainly confined to the least price sensitive items. One of the assumptions on which tariff concessions were made was that the increase in imports would not be too large to injure domestic production. It is perhaps a tribute to American negotiators that they managed to reduce the average ad valorem duty on dutiable imports from 25.28% in 1946 to 12.02% in 1953 with such apparent immunity to a possible deluge of imports. At Torquay the ad valorem duty on imports affected was reduced from 18% to 12%, representing a decline in import prices of about 4.7%.

In a way, the slight increase in imports as a result of the tariff concessions illustrates how a tariff wall can modify the structure of the world economy. At the same time, one is also tempted to speculate as to what would have happened had the American tariff level of the 'thirties not been so wastefully high (in the sense that a much lower tariff would have still been effective in restricting imports). It is possible that the pressure of events on the American government to show tangible evidence of a liberal trade policy might have taken a more fruitful form.

¹ Tariff Commission, op.cit., Table 10.
Buy-American Legislation.

American industries received protection in other forms besides tariffs. Under the Buy-American policy, chiefly embodied in the Buy-American Act of 1933, government agencies, spending in 1952 more than 30 billion dollars, were required when obtaining materials for use in the U.S. to buy from domestic producers unless their price was "unreasonable" or unless it was "inconsistent with the public interest". Other acts also embodied the Buy-American principle. For instance, the 1954 Appropriation Act of the Defence Department required, as a rule, the purchase of domestic supplies of food and clothing. The Buy-American principle also governs the spending of funds obtained from such departments as the Public Housing Administration and the Rural Electrification Administration. Distinct from the Buy-American principle, but having similar effects, the Defence Production Act of 1950, as amended, required that preference should be given to American concerns operating in areas where unemployment is high.

Lastly, legislation affecting the Merchant Marine contained many provisions which favour the domestic industry. The object of the Merchant Marine Act of 1936 was the maintenance of an American owned and staffed merchant fleet of sufficient strength to meet U.S. defence needs in an emergency. This act required that domestic materials should be used by vessels benefitting from government subsidies. Then, provided that charges were not unreasonable, supplies belonging to the U.S. Army or Navy should be carried in American vessels. The Economic Cooperation Act and the Mutual Security Act provide for the carrying of at least 50% of cargoes from the U.S. under these programmes by the U.S. Merchant Navy. Half the purchases financed by loans from the Import-Export Bank were required to be carried in U.S. vessels.

The extent of the protection given under the Buy-American legis-
lation was considerable. As a rule, and until very recently, a domestic price was not considered unreasonable unless it exceeded the foreign price by 25%. This, however, was only the nominal difference, since the basis on which foreign prices were estimated usually included transport costs and customs duties. The real tariff protection was very often as much as 50%-60%.

In late 1954, however, the President of the U.S., in an executive order, clarified and modified the Buy-American principle. The President stated that domestic concerns could not expect to be given government contracts if their bids exceeded those of foreign firms by more than 6%-10%. At an earlier date the President was given authority to exempt from the Buy-American principle all cases in which national defence considerations were involved.

It is difficult to estimate quantitatively the effect of Buy-American legislation on imports. All the evidence, however, indicates that it must be considerable. An estimate puts the probable saving to the U.S. government, in the event of the repeal of the Buy-American legislation, at some 100 million dollars per annum through lower prices.¹ Now, assuming that the differential between the domestic and the foreign prices on those goods or contracts, which could be supplied by foreigners, was 25%, this would indicate that, if the Buy-American principle were eliminated, foreign suppliers might gain U.S. government contracts to the extent of about 400 million dollars per annum. But considerable expenditure would have to be made within the U.S. so that the net gain in dollars to foreigners would be substantially less, perhaps about half the figure given.

The Buy-American legislation affects particularly British sup-

¹ Staff Papers, op.cit., p.318. There would also be an additional gain of about 100 million dollars in the form of increased customs' revenue.
pliers. On several occasions, British bids for contracts of heavy electrical equipment were rejected even though they were considerably lower than the corresponding American bids. The latest instance occurred in autumn 1955, that is, after the regulations for government procurement programmes had been eased in order to assist foreign suppliers: a British bid to build generators and transformers for a dam in the North-West was rejected in favour of an American firm's bid, because the latter firm operated in an area where unemployment was high.¹

What has often been said about the frustration which springs from the uncertainty of American tariff policy applies with increased force to the Buy-American legislation. In the case of an industry protected by a tariff, a foreign exporter can never be sure of what would happen if the tariff were lowered or raised; it is a hypothetical situation. But in cases in which the provisions of the Buy-American legislation are invoked, the rewards of success are denied after success had actually been achieved.

Export Subsidies.

It is generally considered that export subsidies offend commercial morality. Accordingly, export subsidies in practically all forms were banned in the many post-war formulations of the rules of the game.² However, the rights and wrongs of export subsidisation

¹ The British bid was one million dollars less than that of the American firm. Economist, September 3rd, 1955.
² The latest instance was the decision of the Council of the OEEC in January 1955 that members should, by the end of 1955, have stopped resorting to a wide variety of practices which are considered as giving artificial aid to exporters.
cannot be considered here. Nor is it intended to give anything but the broadest account of problems connected with these policies; for these problems, being of particular importance in the case of agricultural commodities, affect the balance of payments position of the U.K. only indirectly.

Export subsidisation in the U.S. generally took two forms. In the first place, there was the straightforward payment of cash by the government to exporters. In the typical case, a cash payment is made to the commercial exporter after the export of privately owned commodities. By Section 32 of the Agricultural Adjustment Act of 1935, 30% of the gross receipts from custom's duties were made available for a variety of purposes, including export subsidies on agricultural commodities. Until 1949, such funds were used for wheat and cotton; but the Agricultural Act of 1949 directed that these funds should be used chiefly for perishable commodities (mostly fruits); and further, that unspent balances, to the extent of 300 million dollars, could be carried over to subsequent years.

Expenditures under this programme were not large. Over the first ten years of the operation of the scheme, about 100 million dollars were expended. Since the Second World War, spending on subsidies has been at the rate of 25 million dollars per annum. This represented about a quarter of total expenditure under Section 32 of the Agricultural Adjustment Act.¹

Nor have shipping lines subsidies been on a very large scale. In order to qualify for a subsidy a shipping line must accept many restrictions, including one concerning the size of its profits. Only sixteen shipping lines with a combined fleet of two-hundred and

¹ Staff Papers, op.cit., p.170.
eighty-one ships had qualified for export subsidies by 1954.¹

In the second place, subsidisation took the form of liquidation of agricultural surpluses by the Commodity Credit Corporation (CCC) under special terms. The CCC was given authority to sell abroad at prices lower than support prices (Section 407 of the Agricultural Act, 1949) or to dispose of agricultural commodities abroad for soft currencies (Section 550 of the Mutual Security Act 1953 and the Agricultural Trade Development and Assistance Act of 1954) or to give away such products for the relief of famine abroad (the last named act). Total authority given by the 1954 Act extended up to 700 million dollars for soft currencies and up to 300 million dollars for grants for famine relief. Under the 1954 Act, goods worth £450m. were sold or given away during the second half of that year.

Several general effects of the programme of export subsidisation deserve special mention because of their impact on the U.K.'s balance of payments position. Clearly there are indirect effects through the impact of subsidised exports on the exports of similar commodities by other countries. Some of the commodities receiving subsidies are also important exports of some Overseas Sterling Area countries.

The question of vast surpluses of agricultural commodities amounting to over 7 billion dollars in 1955 is a most difficult one. These surpluses accumulated chiefly as a result of a policy of inflexible domestic price supports at a high level. Agricultural policy is, of course, a domestic matter and outside the jurisdiction of any international organisation. But once vast surpluses have accumulated, a conflict with a country's international obligations

¹ The Economist, March 19th, 1955.
can hardly be avoided.

The U.S. government stated that she will not use "its agricultural surpluses to impair the traditional competitive position of friendly countries by disrupting world prices of agricultural commodities"; still the U.S. indicated that "she cannot be satisfied with the position of holding its own supplies off the market and accumulating surpluses while other countries dispose of their entire production. Accordingly the U.S. will offer its products at competitive prices". The problem appears insoluble. In the nature of the case, surpluses cannot be disposed of without to some extent disrupting normal commercial relations between nations. The U.S. administration does not regard this as dumping, since, in this case, by dumping it understands selling at below world prices, and not, as in the usual definition, selling below the home price. Whether it is called dumping or not, it can have no other effect but to depress the market for the commodity in question.

The uncertainty concerning the whole question of the disposal of surplus stocks also affects directly certain industries in Britain. This is chiefly true of the Lancashire cotton industry which is annually brought to a standstill in anticipation of the effect of the U.S. cotton policy on the world price of cotton.

There is another way in which export subsidies may raise an additional problem for Britain. The authority of the Secretary of Agriculture to sell at home commodities held by the CCC at prices below domestic support prices was limited. Many American industries, therefore, often protested at the possible subsidisation of their

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2 The latest plan for disposing of U.S. food surpluses envisages the sale or giving of such commodities to Communist countries. One wonders whether the Communist economy is immune to the evils of dumping. See Scotsman, January 10th, 1955.
foreign competitors through the sale of cheap American exports abroad. Conceivably this might lead to demands for protection on the part of, say, the American cotton industry.

Lastly, there is the force of example. Few countries feel compelled to abstain from giving artificial aid to exports as long as the U.S. government does not set the required standard of behaviour for other countries.

Uncertainty and Instability of U.S. Commercial Policy.

(i) At the Administrative Level.

"If I had charge of a small business making a useful product, nothing would induce me to try to export it to the United States." The height of the tariff was not the only factor restricting imports into the U.S. during the post-war period. Ever since the beginning of the trade agreements era, the exporter to the U.S. has had to work under very strong handicaps; the actual tariff level may not have been the most important. The limited achievements of the foreign exporters were made in the face of a Damoclean Sword. These difficulties can be regarded as springing from the uncertainty of American commercial policy.

No quantitative estimate of the restrictive effects of these obstacles is possible. Nevertheless, their examination leaves one in no doubt that their removal would result in a much larger increase in U.S. imports than was suggested by the study of calculated price elasticities.

Uncertainty at the administrative level springs partly from the 

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complexities of American tariff legislation, and partly from the way in which this legislation is interpreted. Even with the best intentions, it is not easy to classify imports consistently and satisfactorily when there are some 8,000 different rates in operation, and when the classification is based neither on logic nor on customary usage, but rather on the bargaining power of different pressure groups. It was estimated that in mid-1953 there were about 50,000 protest cases before the courts which were primarily due to classification difficulties.

Both the spirit of the 1930 Tariff Act and the way it was interpreted, even in the '50's, reflected the protectionism of the 'thirties. The famous rule of similarity makes the importation of new products virtually impossible; according to this rule, the duty on unenumerated products which resemble more than one item appearing in the tariff schedule is assessed on the basis of the one which bears the highest duty. These restrictive effects are often supplemented by the provisions of other acts, such as the Federal Food, Drug and Cosmetic Act.

Uncertainty appears present to the last minute. A sample enquiry in 1949 found that in a surprisingly large number of cases, i.e. about one in every three, the final assessment of duty differed

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1 To mention but one example, ping-pong balls which had been imported as toys, were reclassified as ammunition because they were sometimes used by manufacturers to shoot out of toy guns. Evidence before the Commission on Foreign Economic Policy, Staff Papers, op.cit., p.349.
2 op.cit., p.331.
3 Paragraph 1559 of the Tariff Act.
4 One instance indicates the way in which the Act is interpreted: a chocolate exporter was refused entry into the U.S. for his product because the container was deemed too large in relation to the contents, even though the weight was clearly stated. Staff Papers, op.cit.
5 op.cit., p.324.
from the original assessment. When the importer was responsible for having a second assessment made, he was as often as not successful in having his liabilities reduced.¹

Similar difficulties are encountered in the field of import valuation. Some 313,000 entries were waiting settlement in autumn 1953; this was equal to about a year's entries of all imports requiring valuation. The basis of valuation is very often arbitrary. Internal taxes not levied on exported goods are sometimes included in the basic price; cases are even reported where American selling prices are used as a basis for valuation.

The relevance of these considerations is, of course, obvious; it is the impact they made on the mind of the foreign exporter. It is reasonable to assume that if this invisible tariff represented an isolated aspect of American commercial policy, foreign exporters would normally be expected to take a chance of establishing a hold in the American market. But, far from being an isolated aspect, it often appears to be merely the protectionist's first line of defence.

(ii) At the Policy Making Level.

Why did American commercial policy during the post-war period fail to inspire confidence in its permanence? Revision of U.S. tariffs since 1934 has almost uninterruptedly been in a downward direction. Action under the escape clause or the peril point provisions was not often taken. Official U.S. pronouncements came down on the side of free trade and specifically recognised that high tariffs were inconsistent with a good creditor nation policy.²

¹ There was some improvement as a result of the passing of the Custom's Simplification Acts in 1953 and 1954. Especially welcome was the repeal of obsolete marking requirements.
² For instance, in a Joint Communiqué issued by the U.K., U.S. and Canadian governments on September 12th 1949.
Uncertainty in the mind of the foreign exporter springs from the realisation that protectionist interests in the U.S. were very strong, and what is more, were in a position to influence the policy maker. The popular strength and appeal of protectionism is based on the fact that the phenomenal growth of the American economy was achieved behind the shelter of tariff walls. The causal link may not be obvious or even valid, but the fact remains that the prosperity of the U.S. economy came to be associated with a policy of high tariffs.

The American constitution placed the formulation of foreign trade policy under the jurisdiction of Congress. Partly as a result of this, pressure groups were able to exercise an influence out of proportion to their popular support.

What is more important, Congress itself was always very jealous of its rights. Delegation of powers to the President was never on a lavish scale, and what little there was always aroused resentment. For instance, Senator Malone in the May 1955 debate in the Senate argued that the 1934 Reciprocal Trade Agreements Legislation was unconstitutional because it amended the constitution without submission to the people by delegating to the President powers in foreign trade which were not his by the constitution. It was also complained that there has been a de facto abdication of Congress's responsibility since 1934. As a result of the fact that the delegation of powers to the President had to be renewed constantly, sometimes with restrictive amendments, the foreign exporter was always under the impression that tariff concessions lack permanency.

2 The 1934 Reciprocal Trade Agreements Act was renewed, often with amendments, on the following occasions: 1937, 1940, 1943, 1945, 1948, 1949, 1951, 1953, 1954 and 1955. The latest version representing a three year extension, has been described as the most important act of legislation of the Republican administration. Under this act the President was authorised to negotiate tariff reductions by either of two methods. (a) Reduce by 15% tariff rates existing on January 1st 1955, in stages of not more than 5% per annum. Footnote continued overleaf.
The strength of protectionism was often demonstrated in the Senate debates. For instance, in recent years between sixty and eighty bills were introduced annually in Congress to raise tariff duties or to impose other restrictions on imports. Several restrictionist amendments to the extension of the Trade Agreement Act were defeated by the narrowest majority—including one amendment which was defeated by one vote in 1949. On the other hand, in May 1955, the Senate rejected by a majority of 75 to 13 votes Senator Douglas's amendment to repeal the peril point section of the bill.

Nor can the foreign exporter find any comfort in the actual provisions of the Trade Agreements legislation. These provisions seem to underline the fact that tariff concessions were given in cases which were likely to be least effective in stimulating imports. Furthermore, the spirit in which most of the Acts were passed made it clear that success in the form of an expansion of exports to the U.S. might bring its own penalties, namely, withdrawal of concessions.

Under the escape clause which the administration included, on its own accord, as early as 1941 in a commercial agreement with Argentina, either party to the agreement was entitled to withdraw any concessions if imports entered the country in such quantities as to threaten a domestic industry. By 1943 all trade agreements included an escape clause, but it was not until 1951 that the Congress enacted it into law. A general escape clause (Article 19) was also incorporated in the GATT whereby a contracting party may modify any concessions given if imports of a product increase so as to cause or threaten

(Continued from previous page) (b) Or reduce in stages of not more than one-third in one year all rates in excess of 50% to that level. The President was authorised to take action whenever national security was imperilled. Thus the new act was fairly liberal, even though the President was not given permission, as he had asked, to reduce by 50% the duty level of January 1945 in the case of goods imported in negligible quantities.
serious injury to domestic producers of like or directly competitive products”.

The escape clause, therefore, ensured that, if imports increased more than anticipated, action could be taken to rectify this. The peril point provisions, on the other hand, introduced by the Republican Congress in 1948\(^1\), attempted to prevent in advance any mistake. Under these provisions the Tariff Commission was authorised to report to the President on the level below which tariffs could not be reduced on individual commodities without injury or threat to a domestic industry. As in the case of the escape clause, the President was not bound by the Tariff Commission’s recommendation\(^2\); but if he chose not to abide by them, he had to report to Congress his reasons for so doing.

There were other acts under which rapid action could be taken to restrict imports. They included the Anti-Dumping Act of 1921. Action could also be taken under the Agricultural Adjustment Act. When imports threatened to interfere with a price support scheme, the government could have recourse to restrictive action by invoking Section 22 of the Agricultural Adjustment Act. The General Agreement on Tariffs and Trade recognised the right to impose import restrictions on agricultural products, but only when domestic production of the same commodities was similarly restricted.\(^3\) Lastly, when existing legislation did not provide for restrictive action, new legislation could be passed quickly. Section 104 of the Defence Production Act, which has now expired, provided for the imposition of quotas on dairy products.

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1 The peril point amendment was repealed in 1949, but was reintroduced in 1951.
2 The Simpson Bill, if passed, would have made the President bound by the recommendations of the Tariff Commission.
3 This means that U.S. policy was not in agreement with her international obligations, since the imports of some commodities were restricted, but not their domestic production.
Action taken under the legislation outlined above was generally not on a very substantial scale. In 1953, about 11 countervailing duties were in existence, the main one being that on Uruguayan wool. Anti-dumping duties were only used in a few cases, the most prominent ones were those on imports from Czechoslovakia and imports of British cast iron soil pipes. Until 1953, the peril point provision was applied only to the negotiations on Venezuelan oil.

A large number of cases were examined in connection with the escape clause. (See Table 44). Between 1948 and September 1954

Table 44

Applications by American Industries for Increase in Duty or Imposition of Quota under Escape Clause, 1948-September 1954.

<table>
<thead>
<tr>
<th>Result of Investigation</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of applications</td>
<td>57</td>
</tr>
<tr>
<td>Application withdrawn by complainant</td>
<td>3</td>
</tr>
</tbody>
</table>

Decisions by Tariff Commissioners:

| Application Rejected                                        | 38     |
| Increase in duty or quota recommended                      | 15     |
| Commissioners evenly divided                               | 1      |

Action by the President:

| Commissioners' recommendations rejected                     | 8      |
| Further study requested by the President                   | 2      |
| Duty increase or quota approved                            | 5      |


Their total number was 57; in three instances the application for relief was withdrawn by the complainant. The Tariff Commissioners
found injury to domestic industry and recommended action under the escape clause in 15 cases, and were evenly divided in a further one. However, the President accepted the Commissioners' recommendation in five cases¹, rejected it in eight cases, and requested further study in two cases.

Many of the applications which the Tariff Commissioners investigated referred to commodities which were not imported in large quantities. But in two of the five cases in which the escape clause was invoked the duty was raised on two important exports of Western Europe to the U.S., i.e. on watches and parts and bicycles. Swiss exports of watches on which the duty was raised amounted to 72 million dollars in 1953; and in the year before the increase in duty on bicycles (i.e. 1954), the combined exports of the U.K., France and Germany were 24 million dollars.² Some unsuccessful applications under the escape clause, for example, those by the whisky, crude petroleum, aluminium and lead industries, referred to commodities which bulked large in U.S. total imports.

The relatively small number of cases in which action under the escape clause was taken tends to underestimate the handicap which this legislation presented to the exporter to the U.S. In the first place, decisions by the Tariff Commission on a particular application do not create a precedent on which future policy can be based; in fact, by their terms of reference the Tariff Commissioners are required to

¹ The President's approval was given in the following cases: women's fur felt hat bodies, hatter's fur, dried figs, watches and parts, and bicycles.

reach each decision on each application on its own merits. Thus the element of uncertainty is enhanced. Secondly, a rejected application can be resubmitted; the increase in the duty on watches in 1954 and on bicycles in 1955 followed unsuccessful applications by these industries to invoke the escape clause in 1951.

Thirdly, many of the decisions of the Tariff Commission were not unanimous but were carried by a small majority. Mr Kravis, who made a detailed study of the escape clause investigations, concluded that "the decisions of the Tariff Commission in escape clause cases during the period 1948-53 largely reflected the view of three commissioners who voted together in most instances". Further, if the attitude of the Commissioners who consistently favoured a more protectionist interpretation of the escape clause was to prevail, "the first serious recession in the domestic economy would probably be the occasion for the withdrawal of the more significant United States Tariff concessions".1 Thus, changes in the membership of the Tariff Commission may affect its relatively liberal attitude to increased imports.

Lastly, the objective of the escape clause and other similar provisions is to allow for an expansion of imports without injury to the domestic economy. There must remain some doubt as to whether a substantial expansion of U.S. imports is compatible with this objective. It would depend on the probable effects of increased imports on U.S. domestic production, and also on the way in which the terms "injury to domestic industry" are interpreted.

The Domestic Economy and U.S. Foreign Trade Legislation.

Some estimates of the probable displacement of domestic production

1 Kravis, op.cit., pp.336 and 338.
by imports in the event of tariff suspension have already been made. According to Piquet, even if all tariffs were to be temporarily suspended, the proportion of the domestic market supplied by imports would be small. "The area of maximum import competition would be smaller and the total area of likely displacement of domestic production, on the basis of conditions prevailing in 1951 would be almost infinitesimal".¹ According to the same source, in 1951 about 2.4 billion dollars out of 3.8 billion of dutiable imports analysed consisted of goods which were not very competitive with domestic production. For those which were highly competitive, estimated increases in imports ranged from 421 million to 891 million dollars.

Piquet's study has been carried one step further by some estimates made by the U.S. Bureau of Labour Statistics.² These estimates translated the data given above into employment figures: they represent the number of workers producing the equivalent of the estimated import increases. In the groups of imports which were likely to cause displacement of domestic goods, the estimated loss of employment due to increase in imports was between 96,000 and 145,000 workers, i.e. 60,000-83,000 workers employed directly and 37,000-62,000 workers employed indirectly in the industries concerned. The outstanding characteristic of these estimates, which were no more than guesses, is the smallness of the repercussions of tariff suspension on domestic production and employment.

¹ Piquet, op.cit., pages 41-42. The area of "maximum import competition" refers to those imports which supply between 10% and 90% of domestic production.
² Staff Papers, op.cit., Chapter 7.
However, the general implications of an increase in imports on domestic production and employment are only part of the picture. The actual criteria on which tariff concessions were granted or withdrawn are of more immediate importance to the exporter to the United States. Broadly, two such criteria can be distinguished. First, the aim of the escape clause and similar legislative provisions is to reconcile the objective of a more liberal import policy with the desire to avoid inflicting injury on domestic industry. In extending the Reciprocal Trade Agreements Act in 1951, Congress put forward the following criteria of injury: "the Tariff Commission, without excluding other factors, shall take into consideration a downward trend of production, employment, prices, profits or wages in the domestic industry concerned, or a decline in the sales, an increase in imports, either actual or relative to domestic production, a higher or growing inventory, or a decline in the proportion of the domestic market supplied by domestic producers".

The second criterion was accorded explicit official recognition only very recently; the imposition of restrictions on imports could be justified on the grounds that imports were entering the country in such a quantity as to injure an industry essential to national defence. The principle of "defence essentiality" was embodied in the 1955 extension of the Reciprocal Trade Agreements Act. Under it the Director of the Office of Defence Mobilisation was authorised to report to the President when he had reason to believe that imports of a commodity were entering the country in such quantities as to threaten industries essential to national security.

In general a decline in production and low profits were the most important tests of serious injury. The most controversial aspect of the question is whether a decline in an industry's share of
total domestic consumption constituted serious injury. In general, when the position of industry was otherwise satisfactory, the majority of the Commission refused to accept this criterion as an indication of serious injury. In rejecting the Commissioners' recommendation for an increase in the tariff on watches in 1951, the President argued that "serious injury, by any definition, means a loss to someone. Declining production, lower employment, lower wages, lower returns or losses in capital invested--any of those things might indicate some degree of injury. But the share doctrine goes much further. In fact it finds that serious injury exists when domestic industry fails to gain something it never had, even though the industry may be prospering by all of the customary standards of level of production, profits, wages and employment".¹

However, the decision of the President in 1955 to raise the tariff on bicycles seemed to represent a change from the views expressed in the preceding quotation. The output of the domestic bicycle industry in the first five months of 1955 was some 37% higher than over the same period in the preceding year. Prospects were also good as was indicated by the decision of a large American company—the American Machine and Foundry Company—to build a new bicycle plant.² Protection was therefore mainly granted on the grounds that imports had captured a larger proportion of the market.

What constitutes an industry? Many of the products under escape clause investigation formed only a small part of the output of constituent firms. The majority of the Commissioners held that the existence of injury must be judged in terms of the industry's overall operations; the minority on the other hand held the opposing view

¹ Quoted by Kravis, op.cit., p.331.
that their decision should take into account production, etc., for only the particular commodity named in the escape clause investigation.\(^1\)

However, several attempts by individual Congressmen to make it explicit in the law that injury to part of a domestic industry should still entitle the industry to demand protection were not successful. But in the 1955 debate in the Senate on the extension of the Trade Agreements Act, Senator Byrd, Chairman of the Finance Committee, stated that if one segment of an industry was losing money while the rest was quite prosperous, there would be redress for that particular segment.\(^2\)

In the application of the Anti-dumping Act to imports of British cast iron soil pipes, the majority of the members of the Tariff Commission took the view that seven Californian firms producing about 82,000 tons in 1955 and representing 8% of total domestic production\(^3\) constituted an industry.

Sometimes the difficulties of a domestic industry seeking protection were not primarily due to tariff concessions. The women's fur felt hats industry had a record of a decline over a long period; changes in fashion more than anything else were at the root of the trouble. The ending of the Korean Boom brought difficulties to the lead and zinc industries. The view of the majority was that only when the imports contributed substantially to the decline of an industry should action under the escape clause be recommended. This requirement was usually met when imports increased in absolute quantities and at the same time accounted for a larger share of a declining domestic market.\(^4\)

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1 Kravis, op.cit., pp.333-5.  
3 Economist, November 5, 1955.  
4 Kravis, op.cit., p.333.
The President on the whole accepted recommendations of the majority based on this criterion. In the case of the fur felt hat industry, he agreed to raise the tariff to its 1930 level; this was the first time that action had been taken under the escape clause. However, on occasion the President disagreed with the Commission's diagnosis. In the case of imports of briar pipes in 1953, the President refused to act on the recommendations of the Tariff Commission because "he was not persuaded that the industry's difficulty is due primarily to increased imports....nor that the application of the Tariff Commission's recommendations under the escape clause procedure would remedy such deterioration as has taken place in domestic industry."\(^1\)

The criterion of "defence essentiality" is so elastic that, with a little ingenuity, it can be applied to a vast variety of industries. The outstanding case in which defence considerations led to action under the escape clause procedure is that of jewelled watches and watch movements: a reservoir of skilled labour in the precision industry was deemed essential to national defence. However, it is extremely difficult to assess the contribution of an industry to national defence;\(^2\) the possibility must remain that this criterion can be interpreted so widely as to result in the withdrawal of many of the concessions under the Trade Agreements programme.

The broad conclusion which emerges from this analysis is that the escape clause and other similar provisions as operated during the post-war period were not incompatible with a large increase in American imports. At the same time it must be recognised that the opinion of the exporter to the U.S. is likely to conflict with this

1 Quoted in Staff Papers, op.cit., p.284.
2 Even in the case of the watch industry the evidence was not conclusive. After the tariff had been raised, the Department of Defence stated that preferential treatment for the watch industry was not needed, and that manufactures in other industries were quite capable of producing the time fuses required by the military services. See, Economist, March 26, 1955.
conclusion. The foreign exporter is likely to be impressed by the fact that when an important American industry asks for protection, the pressure on the President to take some action would be almost inescapable. This was demonstrated by the case of the lead and zine industries. In that instance, the answer to the problem was found in increased stockpiling purchases of these commodities.

The circumstances under which the bicycle decision was taken also illustrate this source of anxiety for the foreign exporter. The President did his best to avoid raising the bicycle duty; in the first place he asked the Tariff Commission to reconsider the evidence; when the Tariff Commission endorsed its original recommendation, the President felt compelled to accept it only in part. Instead of raising the duty on all bicycles to $22\frac{1}{2}$% as the Tariff Commission had recommended, he only raised to that level the duty on heavy bicycles; but on light bicycles (i.e. the type which has been successfully exported to the United States) the President raised the duty only from $7\frac{3}{4}$% to $11\frac{1}{2}$%.

The foreign exporter is also likely to become sceptical about the prospects of increased sales to the U.S. when he considers the paradoxical attitude to tariffs of some U.S. net export industries. For instance, exports of U.S. synthetic organic chemicals in 1952 amounted to 329 million dollars; imports, on the other hand, did not exceed 45 million dollars. Yet during the post-war period this industry was one of the champions of increased protection.

The oil industry presents a different kind of paradox. Since the end of the war, petroleum investment by U.S. companies abroad has been on a very large scale. Still, the independent companies, i.e. those which have no overseas interests, have long been clamouring for protection on the ground that cheap imports hindered the
orderly development of domestic petroleum resources. The surprising thing is, of course, that in spite of the overseas petroleum interests of the U.S., these independent companies did manage to get some protection. In the peril point case concerning Venezuelan oil, the President did not lower the tariff on certain grades of petroleum by as much as he had originally intended because the Tariff Commission had found that the domestic oil industry might have been impaired if a larger reduction in the duty had been made.¹

Conclusion.

All evidence indicates that the restrictive effect on imports of U.S. commercial policy was substantial. No doubt the attractiveness of the American market, or of any market, to the British exporter was somewhat diminished by conditions prevailing at home. But when all is considered, one must doubt whether, under any domestic circumstances, the rewards of exporting to the American market, together with official exhortations, would have appeared very great.

To a great extent this defeatist attitude sprang from a belief that gains in the American market would necessarily be short-lived. The analysis presented in the last section suggests that such a view of American import policy during the post-war period was not entirely justified. There is, therefore, a need for the U.S. government to state clearly the basic principles of its commercial policy to the rest of the world.

The long-term prospect of substantial reduction in the U.S. tariff does not appear very bright. During the post-war period, the U.S. enjoyed unparalleled prosperity; yet the most opportune

¹ Staff Papers, op.cit., pp.282-286.
moment for a practical renunciation of protectionism on a much larger scale seems to have been missed. To some extent this is due to the American system of government which placed the formulation of commercial policy under the jurisdiction of Congress. This arrangement makes domestic pressures in the U.S. assume categorical importance. It is significant that ever since the Keynes's negotiations with the U.S. during the last world war, the American government held the initiative at every international conference by appearing as the final arbiter between what other nations would like to see America do and what Congress would accept.
PART IV.

AN INSTITUTIONAL INTERPRETATION: REGIONAL TRADE AND PAYMENTS ORGANISATIONS AND THE BALANCE OF PAYMENTS OF THE UNITED KINGDOM.
CHAPTER 7. GENERAL CONSIDERATIONS.

An Institutional Approach.

The greatest part of this thesis was taken up with a discussion of those causes of international disequilibrium which in one sense or another could be regarded as being outside the control of the British government. In the earlier chapters two such types of explanation of the U.K.'s post-war balance of payments difficulties were advanced. First, a structural approach was made: of the many structural factors which have been put forward as causes of these difficulties, the one that appeared most plausible—namely the differential rate of growth of productivity in the United States and in the rest of the world, particularly in Britain—was selected for special study.

The second type of explanation includes factors which may be termed exogenous. An attempt was made to explain the United Kingdom's payments unbalance in terms of factors which are in every sense outside the control of the British government. In this field again, exhaustive treatment was quite out of the question, and attention was focussed on some aspects of the foreign economic policy of the United States.

In this part it is proposed to put forward a third interpretation of the post-war dollar problem. It is an institutional approach. The thesis suggested here is, briefly, that during the post-war period certain regional economic institutions tended to affect adversely the balance of payments of the U.K., or that they at least went some way towards shaping the pattern of the payments difficulties which faced this country. It will be argued that the persistence of a

1 In what sense it can be said that institutional factors are outside the control of the U.K. government is explained immediately below on page 212.
British dollar problem is in some measure a by-product of the operation of the Sterling Area and the European Payments Union; and, it will be further contended that some of these unfavourable balance of payments effects are not the result of specific features of the Sterling Area or the EPU, but are inherent in the principle of regionalism.

**Raison d'Être and Objectives of Regional Trade and Payments Organisations**

Before embarking on a detailed analysis of the operation of the Sterling Area and the European Payments Union, it is helpful to consider in general terms the probable balance of payments effects of regional trade and payments organisations in the light of (a) their chief objectives, and (b) the circumstances which bring them into existence.

What, then, are the objectives of regional trade and payments schemes? In general the chief objective is the removal of barriers to the free exchange of goods and services, and possibly to the movement of labour and capital, between member countries. It is the establishment of a limited area of free trade.

The impression that joining a regional scheme is a voluntary act on the part of a national state, and that it therefore represents the considered opinion of the government that joining the scheme is to the best interests of the country, should be qualified. Though the status quo is considered, from the balance of payments point of view, to be preferable to the arrangements under the regional scheme, the situation which would arise if all other countries except the one in question were to join the regional organisation, may appear to the latter country to offer worse prospects than the status quo. The order of preference for the country in question may, therefore, be as follows: (1) The status quo or some other scheme which her
partners are not prepared to consider; (ii) membership in the regional scheme which is suggested by her partners; and (iii) the situation which would arise if her partners were to join the regional scheme while herself refusing to do so. The validity of this order of priorities depends, of course, on the assumption that the country in question is not in a position to veto the proposed scheme by refusing to join.

It is, however, true in this qualified way that membership of a regional organisation must hold certain attractions. However, in deciding to participate in a regional organisation, a government may attach importance to other aspects besides the economic ones. Political objectives may be prominent; again the wish to maintain cultural ties with kindred peoples may weigh heavily with a national government. Lastly, a government may be sufficiently enlightened to consider not only the effects on its balance of payments of joining a regional institution, but also the effects of such action on, for example, the distribution of productive resources within the country.

In a more general analysis, it would no doubt be fascinating to examine regional organisations from the wider standpoint of economic welfare; unfortunately this course cannot be pursued here without dismissing very important, but highly controversial matters in an unduly cavalier fashion. The sole criterion on which regional trade and payments organisations will be examined is their effect on the balance of payments of the participating countries. Any conclusions drawn from the following analysis will, therefore, be of limited applicability.

What are the special circumstances or factors which tend to bring regional institutions into existence? The relevant question is, why not trade liberalisation on a world-wide rather than a merely
regional basis? It appears that four types of explanation can be advanced. The first three belong to another field of study and cannot be explored here; their presence or absence must be taken as datum.

The first possible reason for which trade is organised on a regional basis derives from the possibility that the economic objectives of a particular regional organisation are only one aspect of its activities. Membership in the "club" may be offered on political, defence or cultural considerations. If such criteria are used, many countries may be deliberately and consistently excluded from the regional scheme by its drafters, even though, on economic grounds, the inclusion of these countries would be considered advantageous.

In the second place, there is the other side of the same factor: it appears quite possible that many countries, for one reason or another, may not want to join the scheme; for membership carries with it obligations as well as privileges.

The third possibility springs from the fact that the balance of payments interests of prospective members are by no means always identical. If, for instance, country X is a competitor of country Y, she may make it a condition for joining in a trade and payments scheme with countries W and Z, that country Y should be refused admission; so that X alone will reap the benefits of trade liberalisation in W and Z. It is obvious, therefore, that, to some extent, the membership of a payments scheme will be determined by the bargaining powers of prospective members. Sometimes organisations professing to be international may refuse admission to specific countries, often for reasons grounded in prejudice rather than in genuine
economic advantage.  

Fourthly, even when these, so to speak, exogenous reasons do not exist, there may be instances in which a regional organisation is established simply because the alternative of a world wide institution, though desired, is unworkable. It is really with these sets of circumstances that we are concerned here.

An international, and a regional, trade and payments system can only work satisfactorily if member countries maintain equilibrium in their overall balance of payments. The recurrent use of extraordinary methods of finance cannot form the foundation of a permanent institution; countries which are persistently in surplus or in deficit cannot be accepted as members of an international scheme. It is significant that regional payments institutions only began to emerge when the rigidity of the domestic price and wage structure, the reluctance to modify the rate of exchange and the unwillingness of governments to pursue a deflationary policy to the point at which it will cause some unemployment have brought into existence structural debtors or creditors. The existence of a large number of structural debtors or creditors makes it necessary, if any measure of trade liberalisation is to be achieved, to organise international trade and payments on a regional basis to the exclusion of persistent debtors and creditors.

It may be argued that a structural debtor or creditor is a myth. It is obvious that if the supply of currency of a country X is persistently falling short of the demand for it in the world exchange market, and if country X is not prepared either to accept settlement in

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1 The case which most vividly comes to mind is Japan's frustrated efforts to gain full membership in GATT.
other currencies or to make extraordinary grants or loans to other countries in her own currency, then country X would eventually be in external equilibrium at the low level set by the earnings of X's currency by foreigners. But the assertion here that structural disequilibria are usually responsible for the emergence of regional organisations is made with reference to commercial transactions proper. The point which it is intended to stress is that a country which can only maintain herself in external balance by receiving or making extraordinary grants or loans cannot usually participate in any trade and payments schemes. For neither in the case of a structural debtor nor still less in that of a structural creditor (of sufficient importance) is the psychological background and the economic environment such as to allow any scope for the fulfillment of the objectives of a regional institution, namely for trade liberalisation on a reciprocal basis.

Taken in conjunction with the three previously given reasons for the establishment of regional trade and payments organisations, and in the light of their objectives, the concept of structural unbalance as defined above explains satisfactorily the actual emergence of regional organisations in the last 25 years or so.

It appears, then, that if the only reason why a regional and not an international organisation is established is the existence of a structural disequilibrium in the balance of payments of some important countries, the regional scheme is, by definition, a second best solution. Two points appear to follow from that. In the first place, the regional scheme is essentially transitional. It will be superseded by a world-wide organisation if and when the structural disequilibria disappear; and the rules of the regional scheme may be so framed as to help to remove the basic causes of persistent payments unbalance.
In the second place, some important countries which are persistent creditors are not members of the regional scheme. If the regional organisation is to function properly, i.e. if it is not to lead to increased restrictions on trade between members of the scheme and these "hard" currency countries, it is important that the balance of payments between the latter and the former taken as a whole should not deteriorate as a result of the establishment of the regional organisation. Further, the currency of these hard areas which already enjoys, so to speak, a premium value because imports from hard currency areas are more restricted\(^1\) than imports from other areas, has its value further enhanced. For, collectively, i.e. for the members of the regional scheme as a whole, achievement of equilibrium in payments relations with hard currency countries makes it possible to abandon the second best regional solution in favour of an international organisation. Individually, each country which achieves such balance widens her choice of practical policies in the field of trade and payments; if a country achieves this balance or surplus ahead of other members she may either leave the regional organisation and join a payments scheme with the hard currency block or make any other arrangements it considers in its best interests. Of course, it does not necessarily follow that she will leave the regional scheme; for even though in balance of payments equilibrium with the hard currency areas, she may still consider that her economic interests will be best served by continued membership of the regional organisation.

Balance of Payments Effects of a Regional Trade and Payments Scheme.

An attempt will now be made to study in a simplified form the

\(^1\) And therefore represent goods more essential than imports from other countries.
likely balance of payments effects of the formation of a regional scheme for trade and payments. The following assumptions outline the economic environment in which the regional organisation is expected to operate:

(1) The objective of the regional scheme is to increase the flow of goods and services between member countries. It will be assumed, therefore, that both in the field of trade and in the field of payments, appropriate steps are taken to this effect; and not only by the essentially negative method of liberalisation, but also by positive measures, such as credit facilities, designed to encourage the expansion of inter-member trade. Such measures, however, unintentionally, inevitably discriminate in favour of the members of the scheme as a whole as opposed to outsiders.

(2) The world consists of a group of countries, C, D and E which join together to form the regional organisation. These countries, which form a soft, or semi-soft currency area, are expected in the light of the preceding analysis to be, to begin with, in approximate overall balance of payments equilibrium; otherwise, it is self-evident, the regional scheme cannot function properly. But within the organisation some countries will be creditors and some debtors; it would be too much of a miracle to expect that each country would be in equilibrium with both the outside world and the other members taken as a whole. It will then be assumed that country C is a creditor in her payments relations with D and E taken together, and a debtor in her relations with the outside world; whereas D has a deficit in her balance of payments with C and E taken together, and a surplus with

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This, of course, does not exclude the possibility of temporary disequilibria which are expected to be reversed; one of the subsidiary objectives of the scheme is to provide immunity from the undesirable consequences of such unbalance.
the outside world.

Secondly, outside the regional organisation, there is country A; she is excluded because she is a persistent overall creditor, and represents a hard currency area. Thirdly, to complete the picture, (though no detailed analysis is intended in this direction), there is a group of countries, denoted by B, which for political, cultural, or other essentially non-economic reasons are not included in the regional scheme.

Attention will in particular be focussed on the effects of the formation of a regional organisation on the particular balance of payments relationship between members of the organisation and country A.

(3) A third useful and plausible assumption is that conditions of full or near-full employment prevail in member countries. The implication is, of course, that a substantial\(^1\) expansion of exports from one member country to a particular area can only take place at the expense of either exports to some other area or of domestic consumption and investment.

(4) In the domestic field, a national government, besides being pledged to maintain full employment, is also assumed to be under the obligation to secure some degree of price stability. This reveals the distinct possibility that a national government may, where possible, relieve pressure on domestic resources by an import surplus.

(5) It will be assumed that the bulk of international trade in member countries is in private hands; and that exports and imports are governed by commercial considerations of private profit, and not by what the government considers desirable from a national standpoint.

(6) Lastly, it will be assumed that the effective degree of trade liberalisation obtaining in each country's trade with another

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\(^1\) Here this refers to an expansion in excess of the annual increase in industrial production or national income; i.e. in excess of the rate of increase of productivity.
before the formation of the organisation bears some relationship to the state of her balance of payments with that country.

What, then, is likely to happen under these conditions, when trade and payments within the regional organisation are liberalised? To start with the obvious, one can expect a substantial increase in trade between C, D and E. This will chiefly be the result of (a) the probable impetus to increased production (and therefore trade) given by the formation of an area of freer, or completely free, trade; and of (b) trading goods which were previously subject to direct physical controls and could not be imported or exported at all, and also goods in which it was not previously profitable to trade because they were subject to a tariff; and of (c) the organisation of trade and payments on a multilateral basis within the regional scheme.

The first relevant point is whether a new pattern of payments within the region is likely to emerge as a result of the increase of intermember trade. How is the creditor status of a country like C and the debtor status of a country like D going to be affected? It must be admitted that in the long-run the establishment of the organisation is likely to make for self-sufficiency within the area as a whole. Each member, then, can be expected to move slowly toward equilibrium in its balance of payments with the other members as a whole; she will tend to adjust her economy toward the production of goods for which there is an assured market in other members of the organisation. But this is a long-term effect, and in any case presupposes faith in the permanence of the regional organisation or union.

What about short and medium term balance of payments effects? On the whole, first reactions will not be compensatory, i.e. creditors will not tend to reduce their surplus and debtors their deficit within the scheme. C will tend to become a more extreme creditor and D a
more extreme debtor than before the formation of the regional organisation; the following reasons may be listed:

(a) It is unlikely that a creditor country would have agreed to join the scheme if she had feared that her creditor status would disappear or be substantially impaired.

(b) It is likely that each member country, irrespective of whether she is a debtor or a creditor will be expected to achieve the same degree of effective trade liberalisation. On the other hand, it is only natural to assume that countries which were debtors before the formation of the organisation, exercised a much stricter control over imports than countries which enjoyed a surplus. In achieving the same degree of effective trade liberalisation, therefore, debtor countries provide a much larger scope for an increase in imports than do creditor countries.

(c) Even assuming that in each country imports from and exports to other member countries as a whole rose proportionately to each other, the absolute size of the trade gap or the trade surplus will be increased.

As a result of the operation of these factors, therefore, C will have a bigger balance of payments surplus with D and E taken together than before, whereas D will have a bigger deficit with C and E than previously.

The expansion in the volume of inter-member trade reflects to some extent the impetus given to production, through increased productivity, by the establishment of an area of free, or freer, trade. But since the conditions of full employment are assumed to prevail, this expansion to a substantial extent takes place at the expense of domestic consumption and investment, and also of exports to countries A and B. Incidentally, however, it should be noted that in country C
the pressure on domestic resources is not as great as it might appear at first sight from the expansion of her exports to other members of the scheme since her imports from the same area have also increased.

The balance of payments of all members of the regional organisation, with the outside world, especially with A, is likely to deteriorate. Exporters in C, D and E are attracted by the soft markets within the region; the incentive to export to hard currency areas is diminished. On the other hand, in spite of the increase in inter-member trade following the formation of the regional scheme, it is unlikely that the dependence of the region on imports from country A will be substantially reduced; for in the pre-regional agreement era, imports from hard currency areas were already strictly controlled and kept down to a bare minimum.

This is more true of country C, which, being a creditor within the regional organisation, was likely to be in debt in her payments relations with the outside world, and especially with country A. Country D, on the other hand, which is assumed to have a surplus with the outside world (A and B) might or might not have liberalised her imports from A, depending on whether her surplus with the outside world included one with A. If she had liberalised them, there is the possibility that D's balance of payments with A will not deteriorate much, if at all, following the formation of the regional scheme, since there may now be some scope for substituting C's and E's products for those of A. In such a case, the prospects of viability of the regional institution are enormously enhanced.

For the creditor country C, then, the chief risk lies in the possibility of a larger expansion of unrequited exports to the soft currency area, i.e. to the other members of the regional organisation. The proceeds from these exports cannot be used for imports from coun-
tries E and D since these countries are not, by definition, in a position to supply the required goods; on the other hand, they cannot be used to make payment for imports from A because A will only accept payments in her own currency. C, however, does not want to build up an extreme creditor's position because this may stretch her domestic resources to a point which leads to domestic price inflation.

It is probable that creditor country C would have foreseen this disadvantage and would have been reluctant to join the regional organisation unless something was done to remedy it. The measure most likely to be adopted is an arrangement whereby her surpluses within the regional scheme are settled in part by payments of A's hard currency. The successful functioning of the regional organisation would seem to depend, then, on the ability of country D to earn a surplus in her balance of payments relations with the outside world, especially with A.

Whether country D is able to do that depends on various considerations: on whether her export surplus with the outside world in the pre-regional agreement era included a surplus with A, on the degree of liberalisation of trade between A and D before the formation of the scheme, on the composition of trade between A and D, and on many other factors. All these considerations, however, are of relevance irrespective of whether a regional organisation has come into force.

But there is an additional factor which is introduced by the formation of the regional scheme and which makes an improvement in D's balance of payments with A less likely than before: with the coming into existence of the regional institution, pressure on countries which run a balance of payments deficit to take remedial action
is greatly reduced, or perhaps removed altogether. D now is not forced to reduce her imports from C and E to the limit set by her own export earnings because these two countries will now accept to a certain limited (or perhaps to an unlimited) extent payment in D's own currency without demanding immediate conversion either into their own currency or into the hard currency of country A. But such a liberal or expansionist policy in D is likely to lead to some increase in her imports from A as well as from C and E. The element of substitution between A's and C's (or E's) exports to D is not likely to be very large. At the same time C and E have also increased their imports from D, and there is every reason to expect that D's exports to A will diminish.

Five distinct, but closely connected, balance of payments problems seem to emerge from the preceding analysis. All but the first have already been made explicit. The first two apply to all members of the organisation; the third applies with particular force to creditor members, whereas the last two are chiefly the concern of debtor countries within the regional institution:

(1) The formation of a regional organisation automatically discriminates against countries which are left out; their reaction, and possible retaliation may raise serious problems.

(2) It is likely that the incentive to export to hard currency areas will be diminished by the expansion of the soft currency market.

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1 The danger of this for the regional institution as a whole is self-evident: the expanded imports into D come mainly from C, which is now faced with increased domestic inflationary pressures. If C could relieve that pressure by increasing imports from D and E, there is a risk that a spiral of compensatory finance might develop; the exports of each country to other members of the regional scheme will increase at the expense of exports to A. If, as is more likely, C cannot find suitable goods to import from D and E, then the inflationary pressure, instead of spreading to all members of the union, will tend to concentrate, and be correspondingly more severe in country C.
(3) Creditor countries within the regional institution may be subjected to severe inflationary pressures as a result of a policy of over-importing on the part of other members.

(4) Pressure on debtor members to take steps to reduce their payments deficit is likely to be less intense than before the formation of the regional scheme.

(5) As a result of some more or less unavoidable rules of the institution, countries which are debtors vis-a-vis the other members taken as a whole may tend to lose substantial amounts of hard currencies.
CHAPTER 8. THE CHIEF FEATURES OF THE EUROPEAN PAYMENTS UNION AND THE STERLING AREA.

SECTION A. TRADE LIBERALISATION WITHIN THE EUROPEAN PAYMENTS UNION AND THE STERLING AREA.

Expansion of Inter-Member Trade as an Objective of the EPU and the Sterling Area.

Were the EPU and the Sterling Area primarily intended as vehicles for promoting an expansion in inter-member trade? In the case of EPU, an organisation with a formal constitution, a straightforward answer does not present any difficulties. The EPU owed its existence to the desire of a number of countries to remove the chief obstacle to international trade, namely the complicated pattern of bilateral agreements. In the preamble to the Agreement the liberalisation of trade and invisible transactions between members on a non-discriminatory basis was given pride of place among the objectives of the EPU.

One is tempted to go further and suggest that the other objectives listed are subsidiary in the sense that they represent the conditions on which trade liberalisation and consequent trade expansion would assist members to become independent of foreign aid, to maintain a high level of employment\(^1\), to make their currencies convertible, and to move away from the present regional pattern to a truly multilateral system on a world basis.\(^2\) The provision of resources by the EPU to play in part the role of gold and foreign exchange reserves was essentially a condition designed to facilitate trade liberalisation. To many, this closely coordinated attack on restrictions in both the trade field and in the sphere of monetary exchange represented one of the most valuable features of the EPU.\(^3\) One may therefore be justi-

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1 Though the qualification is added: "bearing in mind the need for internal stability".
2 These objectives appear in the Preamble to the Agreement and are discussed in the First Annual Report of EPU, p.31 ff.
fied in concluding that the ultimate\textsuperscript{1} objective of the SPU was to bring about an expansion of intra-European trade.

It is not easy to be so explicit about the objectives of the Sterling Area. For one thing, the establishment of the Sterling Area was not an intentional act of policy. It is a commonplace that the Sterling Area is not an institution in the usual sense, that it has no constitution or rigid rules, and that it is the result of evolution and constant adjustment to a changing economic environment. In the early 'thirties the Sterling Area was partly a regional image of the universal gold standard; it was the "natural", so to speak, arrangement to be made by all those countries which conducted a large part of their trade in sterling. During and after the war, intense pressures produced a system which, in contrast to pre-war experience, had a formal existence and a centrally controlled policy. Until 1949\textsuperscript{2} Sterling Area policy was almost exclusively formulated in the United Kingdom. The Sterling Area, therefore, has had a much longer history than the EPU, and it is quite possible that different objectives may have predominated at different stages in its evolution.

During the war and the post-war period the Sterling Area system came to be identified with the arrangements for pooling dollar earnings. The question therefore arises whether this objective was incompatible with the desire to maintain inter-member trade at a high level. Rather the reverse is true. In general, there can be little doubt that the monetary and exchange arrangements of the Sterling Area as they existed in the post-war period (i.e. the arrangements which made feasible dollar pooling) implied at the same time the desirability of

\footnotesize
\textsuperscript{1} Ultimate, of course, in a limited field. In the last analysis, the expansion of European trade was desired because it would make a contribution toward the reconstruction and development of the European economy, and perhaps to European integration.

\textsuperscript{2} i.e. until the first conference of Commonwealth Finance Ministers.
complete freedom in trade between members. However, the connection was obscured by the failure of the Sterling Area system (in contrast to EPU experience) to coordinate the monetary-exchange aspect of the foreign economic policy of member countries with the commercial aspect. The freedom to import without restriction from other members, which was implied in sterling acceptability, became meaningless in the face of the authority of member countries to impose direct restrictions on imports. In the later post-war years, some progress was made in coordinating the commercial policy proper of the Sterling Area, but the appropriate mechanism for making such coordination speedy and effective simply did not exist. ¹

Although Sterling Area countries were free to impose trade restrictions on Sterling Area trade, it does not follow that they frequently resorted to such a measure. If restrictions were frequently used, the arrangements would be self-contradictory: the dollar pooling would imply willingness to accumulate sterling, whereas trade restrictions on Sterling Area trade would indicate unwillingness to purchase Sterling Area goods.

Although the desire to economise dollars emerged during the post-war period as an independent objective of Sterling Area policy, it provided at the same time the indispensable conditions for the maintenance of free trade within the area. Without any rules concerning dollar earnings, free trade would not have been possible for members of the Sterling Area which tended to run a surplus with other members and a deficit with the Dollar Area.

The Extent and Nature of Trade Liberalisation within the EPU and the Sterling Area.

This is not the place to describe in chronological order the

¹ See, for instance, the difficulties encountered by a former U.K. Chancellor, H. Gaitskell, "The Sterling Area" in International Affairs, April 1952, p.176.
series of arduous and long attacks on the barriers to European trade in the post-war period. Rather it is intended to enquire first into whether trade liberalisation was on a sufficiently large scale to result in a substantial expansion of inter-member trade (and therefore to produce the effects postulated in Chapter 7); and second, whether the manner in which trade liberalisation was carried out complicated the balance of payments effects described in the preceding chapter.

To take the second question first: one of the long-term objectives of the OEEC, the organisation under the auspices of which both the EPU and the Trade Liberalisation Programme were launched, was to promote the integration of the European economy into a single market. However, an attack on all obstacles to a single market was found to present insurmountable difficulties; in particular, the scheme for a Customs Union of which specific mention was made in the OEEC Convention had to be abandoned for the time being.

Even in the pre-EPU era the attack on European trade barriers was concentrated on the direct trade restrictions. As early as July 1949, the OEEC Council advocated that countries should take the necessary steps for the "progressive elimination of quantitative import restrictions between one another" and fixed 1951 as a target date for the most complete liberalisation of intra-European trade as was possible.

Thus liberalisation under the OEEC Code of Liberalisation essentially meant freedom from quotas. More specifically, liberalisation implied the admission of liberalised commodities without licensing, or

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1 This has been done very adequately by F. Boyer and J. P. Salle: The Liberalisation of Intra-European Trade in the Framework of OEEC, in IMF Staff Papers, Vol. 4, No 2, February 1955, pp. 179-216.

2 In 1956 there was renewed discussion about an attack on tariffs. For some of the problems raised, especially for Britain, see Economist, 18th February, 1956, pp. 450-452.
the automatic granting of licences for their importation. Moreover, the Code also required that "measures of liberalisation of trade must provide for the automatic allocation of the foreign currencies required for such imports". ¹

The partial nature of the advance towards free trade had one very important implication. Even if the rules of the Code of Liberalisation were faithfully observed by all member countries, it is quite possible that some countries would be asked to make a larger real contribution to trade freedom than others. The size of the contribution depends on the techniques of the financial and commercial policy adopted in each country. A country which relied exclusively on quantitative restrictions for controlling imports would, as a result of trade liberalisation, be much more exposed to an increased importation of foreign goods than a country which mainly controlled imports through a tariff. Further, since the Code of Liberalisation made no provision on this point, it was quite conceivable that concessions which took the form of a relaxing of quota restrictions might be vitiated by increases in the tariff.

It is difficult, and perhaps impossible, to compare the restrictive effect on imports of the tariff of different countries. But two points can be made with some degree of confidence. First, there is no evidence (and one would not expect any) to show that countries which are debtors within the EPU tend to rely less on the tariff than countries which are creditors. France, the most persistent debtor, was generally acknowledged to be the country with the most restrictive tariff. On this criterion, the distribution of countries which rely on the tariff appears random. It cannot, therefore, be argued, as a

¹ Code of Liberalisation, Published by OEEC, Annexe A, Section 1.
general rule, that countries which are usually in deficit within the 
EPU owed their debtor status to a more liberal policy than creditor 
countries. But secondly, as an exception, it will generally be 
agreed that the United Kingdom's tariff was one of the least restric-
tive. It is not implausible, therefore, that the position of the U.K. 
in the EPU was adversely affected by liberalisation measures which were, 
in real terms, somewhat in excess of those taken by other countries 
which had achieved nominally the same percentage liberalisation as 
the U.K.

However, this point should not be stressed too much. For the 
attack on trade restrictions was limited in another direction: only 
goods imported on private account were subjected to the provisions of 
the Liberalisation Code. In this respect, the performance of the U.K. 
in liberalising $\%$ of her imports would represent a smaller advance 
toward complete freedom in her import trade than the performance of 
the average country which had also liberalised $\%$ of her imports. For, 
to take the position as it existed in March 1954, U.K. imports on go-
vernment account equalled 11$\%$ of total imports, while the corresponding 
percentage for the average country was only 7.$^1$ Only in the case of 
France, with state imports amounting to 22$\%$ of her total imports, was 
the U.K.'s percentage exceeded. But here, in contrast to the com-
plete freedom of member countries to impose tariffs on liberalised im-
ports, the right of members to transfer imports from private to govern-
mental account was restricted to those commodities which have not been 
the subject of consolidated liberalisation measures.

The method adopted for implementing the objective of freer trade 
was to fix a certain date by which a specific percentage of a country's 

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$^1$ These figures are percentages of state imports in April 1954 at 
1948 values to all imports in 1948.
imports had to be liberalised in the sense defined above. In general each country was left free to liberalise the commodities she chose, but has been under obligation to achieve a certain minimum liberalisation percentage within each of the three broad categories of agricultural products and foodstuffs, raw materials and manufactured goods. A different method was, however, adopted in the case of a number of commodities, chiefly textile and chemical products. It was agreed that these commodities should be placed on a Commonm List, i.e. that their importation should be free in all participating countries. This approach has serious limitations, mainly because many quantitative restrictions, originally imposed for balance of payments reasons, have incidentally come to offer protection to domestic industries. Where this happened, the dismantling of trade barriers could only be carried far on a selective basis decided by each national government.

The target method of approach necessitated the use of a base year as the basis for measuring statistically the performance of individual countries; for it would have been too difficult for member countries to conform accurately to the required level of liberalisation if their performance had been measured in terms of the constantly changing value of current imports.

The significance of the formal liberalisation percentages should, therefore, be judged in the light of, first, the scope and method of liberalisation as outlined in the preceding paragraphs, and second, the fact that they refer to a past year, namely 1948, except in the case of Germany and Austria. The first consideration cannot be discussed here, but the reader is referred to the article by Boyes and Salle, op.cit., pages 194-201, where it is pointed out, inter alia, that the exclusion of government trading, and such other factors as
liberalisation at the administrative level may sometimes distort the picture. With regard to the second consideration, it should suffice to notice that statistical calculations by the OEC have shown that, for the majority of countries, the percentage of liberalisation would not be materially affected if 1952, instead of 1948, had been used as basis.¹

The liberalisation target was progressively raised. The minimum liberalisation percentage was raised from 50% and later 60% in the pre-EPU period to 75% for all imports and to at least 60% for each of the three individual categories at the official inaugurations of the Code of Liberalisation and the EPU. In 1955 the Council decided on a 90% liberalisation for all imports from member countries, and on at least 75% in each of the three main groups of imports, i.e. on food and feeding stuffs, raw materials and manufactures.² Though liberalisation percentages are available for later dates, the table on the following page summarises the position as it existed in early 1954 as most relevant to the period under examination here.

Details of liberalisation percentages for the three individual categories of imports are not given in the table. But for all the participating countries taken together, the liberalisation percentage on the same date was 71.6% for agriculture and food products, 83% for raw materials and 73.6% for manufactured goods.

¹ The chief defect of a calculation based on a past year is, of course, that changes in the composition of trade are not reflected in the liberalisation percentage. Thus, if, for instance, commodity x was actually imported in 1948, but not in 1956, even though its importation in the latter year was not subject to quantitative restriction, the liberalisation percentage will be artificially raised.

Table 45.
Liberalisation of Intra-European Trade, 15th March 1954.
(Million dollars)

<table>
<thead>
<tr>
<th>Country</th>
<th>Basis of Calculations</th>
<th>Liberalised Private trade on March 15th 1954</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>value of trade in 1948a</td>
<td>Value</td>
</tr>
<tr>
<td></td>
<td>Total Intra-European</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade</td>
<td>Government Trade</td>
</tr>
<tr>
<td>Germany</td>
<td>801</td>
<td>55</td>
</tr>
<tr>
<td>Austria</td>
<td>384</td>
<td>5</td>
</tr>
<tr>
<td>BLEU</td>
<td>980</td>
<td>49</td>
</tr>
<tr>
<td>Netherlands</td>
<td>908</td>
<td>10</td>
</tr>
<tr>
<td>Denmark</td>
<td>445</td>
<td>2</td>
</tr>
<tr>
<td>France</td>
<td>853</td>
<td>187</td>
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<tr>
<td>Italy</td>
<td>331</td>
<td>14</td>
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<td>Ireland</td>
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<td>1</td>
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<tr>
<td>Iceland</td>
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<td>10</td>
</tr>
<tr>
<td>Greece</td>
<td>120</td>
<td>26</td>
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<tr>
<td>Norway</td>
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<td>26</td>
</tr>
<tr>
<td>Portugal</td>
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<td>--</td>
</tr>
<tr>
<td>Sweden</td>
<td>766</td>
<td>32</td>
</tr>
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<td>Switzerland</td>
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<td>31</td>
</tr>
<tr>
<td>Turkey</td>
<td>142</td>
<td>7</td>
</tr>
<tr>
<td>U.K.</td>
<td>1851</td>
<td>201</td>
</tr>
<tr>
<td>Total</td>
<td>9222</td>
<td>656</td>
</tr>
</tbody>
</table>

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a—Reference year for Germany is 1949, for Austria 1952.

From these figures, and from Table 45, it can be seen that the liberalisation targets had been exceeded by all countries taken together. Creditor countries, on the whole, pursued a liberal policy in line with their EPU surplus. But some members, notably France, made little progress by that date.

It has already been pointed out that there is no coordinated Sterling Area Commercial policy, or still less, any definite formal commitment on the part of Sterling Area countries to observe rules of commercial policy, corresponding, in any sense, to the OEEC's Code of Liberalisation. It is, therefore, rather difficult to generalise about the experience of Sterling Area countries in the field of commercial policy proper. Yet one or two points should be made, if only by way of comparison with EPU experience.

It is, in a way, misleading to talk of liberalisation of imports within the Sterling Area: in very broad terms, trade within the Sterling Area was maintained comparatively free of quantitative restrictions throughout its existence. Exceptions, of course, were numerous. Some of the import restrictions, like those between India and Pakistan, and India and South Africa, owe their existence chiefly to political considerations. Some of the newer members of the Commonwealth subject some imports from other members to mild quota restrictions on a more or less permanent basis.

In general, however, the Sterling Area was a region of relatively free trade. In another direction obstacles to intermember trade were less than obstacles to trade with the outside world. In the later 'thirties, chiefly as a result of the Ottawa Agreement, the average margin of Imperial Preference was about 10% to 12% on all British exports to and British imports from the Commonwealth. However, the

important consideration is that since the 'thirties this negative, so to speak, freedom has been reduced. Provisional calculations indicate that, though in 1953 about half the British trade in both directions still enjoyed preference, the average margin of preference was reduced to about 6%-10% for all British exports to and imports from the Commonwealth.\(^1\) The authors of the article from which these estimates were taken feel that today "the effect of preference on our total trade cannot be more than marginal".\(^2\) But from the point of view of this analysis, it is important to note that the reduction in the margin of Imperial Preference between the 'thirties and the 'fifties may have adversely affected the primary objective of the Sterling Area, namely the maintenance of intermember trade at the highest possible level.\(^3\)

Restrictions on Inter-Member Trade as an Adjustment Mechanism.

The OEEC Council did not attach dogmatic importance to liberalisation percentages; it recognised that under particular circumstances a country could be exempted from the provisions of the Liberalisation Code. First, it was accepted that, though liberalisation measures were in principle irreversible, the principle of irreversibility did not apply to those measures taken in excess of minimum target requirements. Second, Article 3a of the Code recognised in appropriately vague terms that countries "whose economic and financial position justifies such a course" need not achieve their liberalisation targets. Similarly, countries whose (debtor) EPU quota was blocked, enjoyed the benefit of another escape clause.

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1 op.cit., pp.254-255.
2 op.cit., p.256.
3 Some of the problems of discrimination are discussed in Chapter 9.
All these escape clauses were no doubt necessary to make the liberalisation scheme acceptable to many countries; but it also appears that import restrictions were widely used as the normal means of meeting balance of payments crises. Table 45 illustrated the very important fact that, in spite of all efforts, countries which were faced with balance of payments difficulties tended to resort to the technique of quantitative restrictions. With the full approval of the Managing Board of the EPU, Germany in 1950-1951, and later the U.K., took drastic steps to reduce their imports from Europe. In the case of Germany, the measures taken amounted to more than complete suspension of liberalisation, for the EPU Board took the view that Germany should not assume additional payments commitments and consequently the measures taken to suspend the issue of licences in the liberalised sectors should be extended to the nonliberalised sectors.¹ The Board, of course, recommended other measures, but it cannot be denied that adjustment was brought about chiefly through import restriction. The U.K. did not go as far as Germany, but still her liberalisation percentage fell from about 90% in mid-1951 to 44% at the end of 1952.

Within the Sterling Area individual countries had to retreat from the relative freedom from quantitative restrictions because of balance of payments difficulties. The outstanding example is that of Australia and New Zealand in March 1952. On the occasion, these two countries imposed strict quantitative control on a large number of commodities, irrespective of their source: licences granted could be used for imports from any country except Dollar Area countries and Japan.² Recently, in 1955, Australia was again forced to take similar

² Full details are given in the Board of Trade Journal, March 22nd, 1952, pp.617-620, and 622. The Australian import restrictions were much more severe than those of New Zealand. In Australia the quota for many commodities was fixed at 60% of the 1950-1 imports, while for others, including some very important imports, the limit was placed at only 20% of the 1950-1 level. A third group became subject to administrative control.
measures. The interesting feature is that Sterling Area countries used direct restrictions on imports from other members to correct disequilibria in their balance of payments. The mechanism of adjustment was therefore similar in this respect to that of the EPU countries which either did not achieve the required liberalisation target at all, or were forced by payments difficulties to withdraw liberalisation measures.

The use of quantitative import restrictions as a mechanism of adjustment raises one very difficult question. It refers to the criteria which may justify action on the part of a member country to suspend liberalisation, or, in the case of the Sterling Area, to impose quantitative restrictions on imports from other members. Should a country be entitled to take such measures in the event of a worsening in her regional balance of payments with the organisation, or should her overall balance of payments be the overriding consideration?

This problem raises the question of the principle on which regional institutions should operate, and will be discussed at the end of this Section. But at this stage there is one aspect of the problem which indicates the difficulties associated with the use of quantitative restrictions as a method of balance of payments adjustment within a regional institution.

From the point of view of regional debtors, neither in the Sterling Area nor perhaps in the EPU did the issue arise in a form which would have drawn attention to the limitations of regional organisations. This situation is one in which a member of a regional organisation begins consistently to earn hard currency with the outside world, and

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1 From the point of view of regional creditors, the conflict which springs from an increasing surplus with the regional union and an increasing deficit with the outside world was encountered on several occasions. An example is provided by Belgium in the early days of EPU.
at the same time becomes increasingly in deficit with the other members of the regional organisation as a whole. If that situation were to arise, the country in question would have a strong incentive to leave the regional institution. Hard currency imports represent goods of higher priority because imports from these areas are more strictly controlled; she would hardly be likely to go on handing over her hard currency earnings to other members of the regional organisation in payment for debts she had incurred in trade with them as a result of a more liberal policy. The alternatives for such a country would be to impose quantitative restrictions on a discriminatory basis, i.e. on imports from her fellow members.

Whether a regional institution can survive such a policy is, of course, another question. In practice this dilemma was not faced, for two closely connected reasons. First, very few countries consistently had a balance of payments surplus with the United States throughout the post-war years. This consideration goes some way to explain the solidarity of the Sterling Area. In post-war years all independent Sterling Area countries with the exception of Ceylon were, at one time or another, net spenders of hard currencies. Within the EPU there was considerable reversal of debtor and creditor positions of members, i.e. "compensation through time".

Secondly, the incentive for discriminatory restriction of imports from fellow members was not present because, as a rule, members which had a worsening balance of payments with the other countries of the EPU or the Sterling Area, tended at the same time to have an increasing deficit (or a decreasing surplus) in their payments relations with the other members.

Recent changes in the British balance of payments suggest that the country which seems most likely to be faced with this dilemma is the United Kingdom.
outside world. For, to a large extent, the regional and overall balance of payments position of a country is influenced by the same factors.

The use of direct import controls to meet balance of payments difficulties draws attention to the practical absence of alternative corrective mechanisms after large disequilibria within the EPU or other regional institutions had arisen. In the first place, manipulation of the exchange rates could hardly be left to a regional organisation. Secondly, systematic and institutionalised interference with domestic policies would not have been acceptable to member nations and would not have been in accord with the general philosophy of international economic institutions, including the OEEC, of the post-war period. Thirdly, discriminatory application of restrictions within the EPU area was generally condemned in the Code of Liberalisation; and probably countries which expected to have a surplus in the EPU would never have joined had it not been so condemned. Lastly, there was the possibility that some of the burden on adjustment might be shouldered by creditor members. The EPU did much to advance this principle; for instance, creditor countries were often urged to exceed the minimum statutory liberalisation percentages. But action by EPU creditors within a regional organisation presents many difficulties and is open to many objections. For instance, countries enjoying a surplus within the EPU might be required or expected to cut their exports to other EPU countries. But such creditor countries are unlikely to want an absolute reduction in their overall exports; they would, therefore, tend to reduce the export of goods to EPU countries which are essential and at the same time more easily saleable in other countries. In this connection, some aspects of the EPU

1 With the possible exception of the stillborn International Trade Organisation.
policy with regard to the Belgian export surplus were criticised as "tantamount......to enforced discrimination by other countries on their more essential rather than on their less essential imports from Belgium[1].

The Level of Inter-Member Trade.

Did the EPU and the Sterling Area achieve an expansion in inter-member trade? As can be seen from Table 46 on pages 242 and 243, European trade and trade between EPU countries not only expanded substantially in absolute terms between 1950 and 1954, but it also increased considerably faster than world trade in general. No doubt part of this expansion was due to factors other than trade liberalisation, such as the composition of EPU area trade. But, as is shown in the table, not only did Western European trade expand faster than world trade, but also trade within the EPU area increased at a faster rate, or declined less than trade between the EPU area and the outside world. This took place in spite of the fact that trade between the U.K., Belgium, France, Italy, the Netherlands and Portugal and their monetary areas actually declined, chiefly because inter-monetary area's trade already enjoyed a high degree of freedom before the inauguration of the liberalisation programme. On any account, then, the contribution of the Liberalisation Code to the expansion of inter-member trade cannot be rated as anything less than substantial.

On the other hand, the objective of the Sterling Area was to maintain rather than achieve freedom from direct restrictions. Between 1937-8 and 1952-4, in spite of the reduction in Imperial Preference, intermember trade increased its share in the total trade of the Sterling Area countries. (See Table 47 on page 244.) The outstanding component in this development was the performance of the United Kingdom which came to rely much more on the Sterling Area, both as a source

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Table 46.

Developments in EPU\(^a\) Area Trade, 1950-54.

(i) Volume of Inter-Western European Trade and of World Trade.

(1950=100. Indices are based on constant FOB values of 1950 dollars, \(\text{Inter-Western European Trade}\) and \(\text{World Trade}\).)

<table>
<thead>
<tr>
<th>Year</th>
<th>(\text{Inter-Western European Trade})</th>
<th>(\text{World Trade})</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1951</td>
<td>100</td>
<td>111</td>
</tr>
<tr>
<td>1952</td>
<td>106</td>
<td>108</td>
</tr>
<tr>
<td>1953</td>
<td>119</td>
<td>112</td>
</tr>
<tr>
<td>1954(^b)</td>
<td>136</td>
<td>120</td>
</tr>
</tbody>
</table>

(ii) Volume of Inter-Western European Trade Compared with Western European Trade with Other Areas.

(1950=100. Indices are based on Constant FOB values of 1950 dollars, \(\text{Inter-Western Trade} \rightarrow \text{Exports} \rightarrow \text{Imports}\) and \(\text{W. European Trade} \rightarrow \text{Exports} \rightarrow \text{Imports}\).)

<table>
<thead>
<tr>
<th>Year</th>
<th>(\text{Inter-Western European Trade})</th>
<th>(\text{W. European Exports to N. America} \rightarrow \text{Exports} \rightarrow \text{Imports})</th>
<th>(\text{W. European Exports from Other Areas} \rightarrow \text{Exports} \rightarrow \text{Imports})</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>100</td>
<td>100 \rightarrow 100</td>
<td>100 \rightarrow 100</td>
</tr>
<tr>
<td>1951</td>
<td>100</td>
<td>117 \rightarrow 121</td>
<td>117 \rightarrow 106</td>
</tr>
<tr>
<td>1952</td>
<td>106</td>
<td>113 \rightarrow 112</td>
<td>114 \rightarrow 102</td>
</tr>
<tr>
<td>1953</td>
<td>119</td>
<td>139 \rightarrow 97</td>
<td>115 \rightarrow 112</td>
</tr>
<tr>
<td>1954(^b)</td>
<td>136</td>
<td>126 \rightarrow 108</td>
<td>130 \rightarrow 121</td>
</tr>
</tbody>
</table>

\(^a\) EPU area is defined as EPU member countries, their dependent overseas territories and the countries in their monetary areas.

\(^b\) 1954 figures are provisional.
### Table 46 (continued)

(iii) **Share of EPU Area Trade in World Trade, 1951-4.**

(Imports C.I.F. plus Exports F.O.B.)

<table>
<thead>
<tr>
<th>Year</th>
<th>A^x</th>
<th>B^x</th>
<th>C^x</th>
<th>D^x</th>
<th>E^x</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value in Billion Dollars.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1951</td>
<td>156.1</td>
<td>91.2</td>
<td>37.3</td>
<td>26.5</td>
<td>27.3</td>
</tr>
<tr>
<td>1952</td>
<td>151.8</td>
<td>87.8</td>
<td>36.3</td>
<td>26.2</td>
<td>25.3</td>
</tr>
<tr>
<td>1953</td>
<td>149.5</td>
<td>84.9</td>
<td>36.6</td>
<td>25.4</td>
<td>22.9</td>
</tr>
<tr>
<td>1954</td>
<td>155.0</td>
<td>88.3</td>
<td>39.4</td>
<td>25.1</td>
<td>23.8</td>
</tr>
</tbody>
</table>

As % of World Trade.

<table>
<thead>
<tr>
<th>Year</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>100</td>
<td>58.4</td>
<td>23.9</td>
<td>17.0</td>
<td>17.5</td>
</tr>
<tr>
<td>1952</td>
<td>100</td>
<td>57.8</td>
<td>23.9</td>
<td>17.3</td>
<td>16.7</td>
</tr>
<tr>
<td>1953</td>
<td>100</td>
<td>56.8</td>
<td>24.5</td>
<td>17.0</td>
<td>15.3</td>
</tr>
<tr>
<td>1954</td>
<td>100</td>
<td>57.0</td>
<td>25.4</td>
<td>16.2</td>
<td>15.4</td>
</tr>
</tbody>
</table>

**A**—Total visible world trade.

**B**—Total Trade of countries in EPU area with each other and with the rest of the world.

**C**—Trade of EPU countries with each other excluding intra-monetary area trade.

**D**—Intra-monetary areas trade.

**E**—Trade of EPU area with the rest of the world.

**Sources:** The Contracting Parties to GATT: International Trade, 1954 (Geneva, July 1955).

Table 47.

Share of Inter-Member Trade in Total Trade of Sterling Area Countries.

A. Trade of the Whole Sterling Area.  
(\text{In million dollars, f.o.b., and \%})

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Total Exports from St.A.</td>
<td>5696</td>
<td>15095</td>
<td>15746</td>
<td>20190</td>
<td>18671</td>
<td>18525</td>
<td>18900</td>
</tr>
<tr>
<td>b) Total Imports into St.A.</td>
<td>6838</td>
<td>16209</td>
<td>14986</td>
<td>21373</td>
<td>18568</td>
<td>17939</td>
<td>18906</td>
</tr>
<tr>
<td>c) Exports of St.A. countries to St.A.</td>
<td>2896</td>
<td>8139</td>
<td>7634</td>
<td>9341</td>
<td>9431</td>
<td>9789</td>
<td></td>
</tr>
<tr>
<td>d):c) as % of a)</td>
<td>51</td>
<td>54</td>
<td>48</td>
<td>49</td>
<td>50</td>
<td>51</td>
<td>52</td>
</tr>
<tr>
<td>e):c) as % of b)</td>
<td>42</td>
<td>50</td>
<td>51</td>
<td>46</td>
<td>50</td>
<td>53</td>
<td>52</td>
</tr>
</tbody>
</table>

B. The Position of the U.K.  
(\text{In \%})

<table>
<thead>
<tr>
<th></th>
<th>1937</th>
<th>1952</th>
<th>1953</th>
<th>1954</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of U.K. exports going to St.A.</td>
<td>39</td>
<td>47</td>
<td>47</td>
<td>48</td>
</tr>
<tr>
<td>% of U.K. imports coming from St.A.</td>
<td>30</td>
<td>41</td>
<td>45</td>
<td>44</td>
</tr>
<tr>
<td>% St.A. Exports going to U.K.</td>
<td>37</td>
<td>34</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>% St.A. imports coming from U.K.</td>
<td>35</td>
<td>32</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>R.S.A.X trade as % of R.S.A. imports from all sources</td>
<td>15</td>
<td>19</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>R.S.A. trade as % of R.S.A. exports to all sources</td>
<td>19</td>
<td>18</td>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>

x--R.S.A.: rest of Sterling Area.  The term covers trade between Sterling Area countries excluding the U.K.

for its imports and as a market for its exports. On the other hand, the importance of the U.K. as a market for the Exports of other Sterling Area countries declined slightly, whereas its importance as a source of imports remained fairly stable. There was also little change in the relative share of trade between countries of the Overseas Sterling Area.
The Sterling Area.

If freedom of trade from quantitative restrictions is to lead to a substantial expansion of trade within the regional organisation, liberalisation measures must be accompanied by appropriate provisions in the field of payments. Broadly, in the post-war economic environment, and in any environment which is likely to lead to the creation of a regional institution, this means action in three closely connected directions. First, countries within a regional institution should be treated by each individual member as a single unit from the payments point of view. At the theoretical level, this is not an inherently necessary condition for trade maximisation\(^1\); but in view of the prevalent standards of economic behaviour in the post-war period, no regional organisation which sanctioned inter-member discrimination as a general principle could function satisfactorily, or even survive at all.

The second provision is the logical counterpart of trade liberalisation measures in the field of payments. Steps must be taken to prevent temporary and non-systematic factors from interfering with free, or relatively free, trade within the region. In their very nature, such measures must meet one test: they should not tend to perpetuate the temporary difficulties.

Lastly, and this again follows logically from the desire to maximise trade within the region, the institution must prescribe or formulate the appropriate measures which would allow member countries,

\(^1\) Rather the opposite is true. The reader is referred to Professor J.M.Fleming's, On Making the Best of Balance of Payments Restrictions on Imports, in the Economic Journal, Vol.LXI, March 1951, pp.48-71, and the literature given therein.
individually and collectively, to pursue their liberal trade policies without being faced with payments difficulties with the outside world. In the following paragraphs it is intended to describe the salient features of action taken in these three fields by the Sterling Area and the EPU, while reserving discussion of the balance of payments implications of such action for Chapter 9.

There is not much to be said about the first problem with regard to the Sterling Area. Multilateralism was implicit in the Sterling Area from its inception in the same way as it would have been implicit in any group of countries which formed a single monetary area. In this respect, the modus operandi of both the pre-war and post-war Sterling Area was similar to that of the gold standard. The use of sterling as the sole currency for regional trade made multilateral offsetting of intermember surpluses and deficits automatic. Multilateral offsetting, however, could have disposed of all regional surpluses and deficits only if each individual member of the Sterling Area was in overall balance of payments equilibrium with all the other members of the Sterling Area taken together. In general, this condition was not fulfilled (nor was it for a moment, the policy objective of the Sterling Area, unlike that of the EPU, that it should have been fulfilled). Accordingly, the multilateral use of sterling as a means of maintaining intermember trade at a high level had, all the more, to be supplemented by measures in two other directions.

The mechanism of the Sterling Area must provide for members whose regional balance of payments, for one reason or another, is worsening. This problem primarily arises because of the low level of reserves of international currencies in relation to the value of trade. The arrangements of the Sterling Area in this field are formally assymetrical in the sense that it is only the Overseas Sterling
Area countries which are willing to accumulate sterling balances to an unlimited extent. The unlimited acceptability of sterling ensures that the United Kingdom would not be hard pressed to restrict imports from the rest of the Sterling Area, if she ever found herself in temporary payments difficulties. In practice, however, there is no asymmetry. The countries of the Overseas Sterling Area were not faced with a problem in this connection during the post-war period because they were well provided with foreign exchange reserves in sterling. These sterling balances, built up for the most part during the second world war, and replenished during the commodity price boom of 1951, were generally large enough to allow the Overseas Sterling Area countries to pursue a liberal trade policy within the region without undue worry about their balance of payments position in the Sterling Area.

These arrangements by themselves are subject to the criticism that they offer little or no incentive either to the U.K. or to the Overseas Sterling Area countries to tend to reverse temporary disequilibria as sterling liabilities increase, or as sterling balances are run down. In the case of the U.K., the complete lack of incentive is self-evident: the U.K. can go on increasing her sterling liabilities without being faced with any immediate demand to make payment in any other currency but her own. This is an arrangement which was well suited to the needs of financing a war, but little in accord with an economic situation dominated by the necessity of maintaining exports to hard currency areas.

From the side of the Overseas Sterling Area countries, this lack of incentive is also present, though it is less complete. But a distinction must be made between Colonial Sterling balances and those

There have been some exceptions. The Australian import cuts of 1952 were chiefly prompted by a rapid reduction in Australian sterling balances.
held by the independent members of the Sterling Area. To a large extent, colonial balances represented backing for colonial currencies, and are often held in the form of marketable securities. In any case, the broad financial policy of colonial territories is normally amenable to direction from London. The balances of the independent Sterling Area countries, on the other hand, are held mainly in the form of a deposit with the Bank of England. They earn little or no interest, and are in addition subject to loss of purchasing power through the fall in the value of the pound sterling. The holders, therefore, have an incentive to dispose of them as soon as possible, and this may ultimately act as a deterrent to a United Kingdom policy of increasing indefinitely her sterling liabilities. At the same time, it must be remembered that London, as the banker of the Sterling Area, is the place where funds can be raised by other members for long-term capital projects. A rise in the London rate of interest used to have some effect on the rate of borrowing by the Overseas Sterling countries. But now cheaper finance can be obtained by utilising sterling balances. As Sir Sydney Caine has pointed out, if the sterling balances had been funded and turned into marketable securities, the underlying process of credit creation would have become much plainer. Further, "....it would have been vastly more difficult to maintain the cheap money policy of the post-war period, but it might have lessened the tendency to run into deficit by the outer members of the Sterling Area".

The arrangements governing the relationship between the Sterling Area and the outside world reflect the conditions created by a global

1 This does not mean that Colonial governments are not free to exercise discretion within fairly wide limits; for instance, the level of their sterling assets in London is to a great extent the result of decisions taken locally. See Colonial Office Memorandum on Sterling Assets, 1953.
2 Sir Sydney Caine, Some Doubts about Sterling Area Policy, in Lloyds Bank Review, April 1954, p.16.
dollar shortage.

At any one time, some members of the Sterling Area, who need not always be the same ones, can be expected to be net earners of dollar and other hard currencies, while other members are net dollar spenders. At a given moment the dollar surpluses and deficits may or may not balance. As it was pointed out in Chapter 7, the formation of a regional organisation may unleash forces which constantly put pressure on the Sterling Area as a whole to run into deficit with the Dollar Area. The problem, therefore, is twofold: to transfer dollar earnings from those countries which run a surplus with the Dollar Area to those which are in deficit; and second, to enable the Sterling Area countries, taken together, to live within their earnings of hard currencies.

The Sterling Area mechanism for facing these problems centred round the two complementary devices of dollar import restriction and of dollar pooling. Import restrictions from the Dollar Area of the present scope would have been necessary even if all individual members of the Sterling Area, taken together, had been in payments equilibrium with the Dollar Area. The formation of the Sterling Area implied relatively complete freedom in trade, payments and even capital transfers between member countries. If import restrictions from the Dollar Area had not been universal (i.e. if they had been confined to those members which were net dollar spenders) and of approximately equal severity in all member countries, then the restrictions could have been evaded by importing dollar goods into those member countries not subject to such restrictions, and then re-exporting them to member countries in which the importation of dollar goods was under strict control.

In the absence of a formal constitution, the practical implement-
different methods for controlling dollar imports were adopted\textsuperscript{1}, indicating a distinct evolution from the vague and general to the definite and specific. Originally imports from the Dollar Area were to be limited to "essential goods" and goods which could not be obtained from other members of the Sterling Area. During the war, limitation of shipping space imposed a virtual control on dollar imports. In the immediate post-war years, bilateral agreements were negotiated between the U.K. and a number of countries, including India, Pakistan, Ceylon and most non-Commonwealth members of the Sterling Area, thus placing a limit on the drawings from the dollar pool by these countries. The formulation of specific requirements was later extended to cover all Commonwealth countries; in the 1949 Conference of the Finance Ministers, it was decided by all Commonwealth members to reduce dollar requirements to 75\% of their 1948 level. And although no specific targets were announced after the two Commonwealth Conferences of Finance Ministers in 1952, K.M. Wright thinks\textsuperscript{2} that further concrete objectives for reducing dollar expenditure were set among the participating countries.

The second aspect of the arrangements—actual pooling of hard currencies—is in principle more simple to implement. For each individual member country it implies two things.\textsuperscript{3} At the first stage each member must be prepared to operate a system of exchange control whereby hard currencies earned by her nationals are handed over to her central bank. At the second stage, it implies willingness to transfer to a central authority (i.e. the Exchange Equalisation


\textsuperscript{2} op. cit., p. 566. See also, Commonwealth Economic Conference, Final Communiqué, December 1952, Cmd 8717.

\textsuperscript{3} op. cit., p. 560.
Account acting on behalf of the U.K. government) all such hard currencies; or, to put the same thing in another way, it implies willingness on the part of members of the Sterling Area to hold their foreign exchange reserves in sterling.

Before concluding this description of the Sterling Area payments mechanism, it should be stressed that individual countries have not always adhered strictly to these informal arrangements. In fact the rules were often subject to exceptions. In the first place, though the whole raison d'être of these arrangements was to the effect that dollar expenditure should not be governed by the needs of individual members, there was a tendency for those countries which happened to earn dollars to take the lion's share of the benefits. In the second place, there were specific exceptions to the rules. The extreme instance is provided by South Africa, which, from the dollar pooling point of view, is not a full member of the Sterling Area, since she neither restricts her imports from the Dollar Area to the same extent as other members of the Sterling Area, nor holds her reserves in sterling. Her case, however, is rather unique, since, by virtue of her position as gold-producer, she is unlikely to have any claims on the Sterling Area's central dollar pool. A more typical example, which at the same time illustrates the first consideration, is provided by Australia which early in 1951 temporarily stopped her gold sales to the U.K. in order to build up her own hard currency reserves.

Finally, it should be pointed out, that it is in conjunction with these payments arrangements and informal obligations that sterling remained throughout the post-war period a convertible currency to member countries. Control was exercised at the stage of import licencing, and the granting of licences followed by the automatic allocation of foreign exchange.
European Payments Prior to EPU.

In contrast to the experience of the Sterling Area, Western European countries were faced at the end of the war with the restrictive effect of the organisation of trade on a bilateral basis in a most pronounced form. In the immediate post-war years, international trade was conducted on the basis of a series of bilateral trade and payments agreements which, at best, allowed each partner limited settlement facilities in her own currency. The Agreement on Multilateral Monetary Compensation (18th November, 1947), in which the U.K. participated as an "occasional" member, represented an improvement on the strictly bilateral organisation of trade because it made a start in treating member countries as a unit by providing for "first and second category compensations". First category compensations, which were compulsory for permanent members but optional for occasional members, involved only a reduction in existing balances and "imply a 'closed circuit' of countries each of which is debtor to its immediately preceding partner, while it is itself creditor of its succeeding partner, the last country in the chain being the creditor of the first country and thus closing the circuit".¹ "Second category compensations" which were optional for all members involved a payment by one country to another by transferring the currency of a third country. In actual fact these facilities were only utilised to the very limited extent of about 50 million dollars, partly because out of a total of some 700 million dollars of surpluses (or deficits) in intermember trade, over half represented overall surpluses (or deficits) in the payments relations between each individual country and all the other members taken together.

The two Intra-European Payments Schemes represented further progress on the road which culminated in the completely multilateral system of the EPU. The offsetting mechanism was retained and strengthened by making "first category compensations" automatic for all participating countries. But the great innovation was the introduction of conditional dollar aid and bilateral (25% multilateral in the 1949-50 scheme) drawing rights. In the execution of these schemes the U.S. played an indispensable role. Dollar allocations under the European Recovery Programme were normally made on the basis of a country's estimated deficit with the Western Hemisphere. The drawing rights system implied a further sub-allocation of dollars by the creation of "conditional aid". The recipients of a "conditional aid" undertook to place an equivalent amount of their own currency at the disposal of current account debtors in intra-European trade. In its essentials, then, the drawing rights system represented action in the second and third of the three fields referred to in the discussion of the Sterling Area mechanism. It was intended to facilitate trade by providing payments facilities for those countries which were expected to run a deficit in their trade relations with other countries in Western Europe, and at the same time enable regional creditors to finance their own dollar deficit.

An evaluation of the actual working of the two Intra-European Payments Schemes obviously does not fall within the scope of this thesis, but several points deserve mention because they throw some light on the conditions and problems which led to the establishment of the EPU. First, in their very nature the two schemes were tempo-

1 Except for Switzerland, and, for a time, Portugal.
rary expedients because both were entirely dependent on the willingness of the U.S. to continue to extend aid to Europe. This remark, however, should not be construed as an attempt to minimise the extent to which the creation and smooth functioning of the EPU were dependent on U.S. financial assistance.

Secondly, the use of the compensation and drawing rights facilities provided under the two schemes was rather limited, leaving substantial net surpluses (or deficits) to be dealt with by other means. It would seem probable that the expansion of inter-European trade was considerably hampered by the inadequacy of the corresponding payments mechanism.

Table 48 illustrates clearly both the limitations of the payments schemes and of the progress made between 1947 and mid-1950.

(a) Under the 1947 Agreement first category compensations were compulsory for only permanent members.\(^1\) Total compensations effected amounted to some 52 million dollars. But most of these compensations represented second category offsetting, which was optional and presupposed certain administrative transferability of the currency used; the implication is that these compensations might have been effected even without the Agreement. The making of first category compensations automatic for most countries in the 1948-9 and 1949-50 schemes resulted in some increase in the turnover. Even so, only a very small proportion of deficits (or surpluses) which could be cleared by compensation were in fact so cleared.

(b) However, the compensation mechanism could, even in theory, clear only a fraction of total surpluses (or deficits), since in a large measure the latter represented overall surpluses (or deficits).

\(^{1}\) i.e. Belgium, Luxemburg, Bizone of Germany, France, Italy and the Netherlands.
Table 48.

Payments Mechanism of Intra-European Trade, December 1947-June 1950. (Million Dollars.)

A. Compensation Turn-Overs.

<table>
<thead>
<tr>
<th>Payments Agreement of Compensations</th>
<th>First Category</th>
<th>Second Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18th Nov. 1947</td>
<td>5</td>
<td>47</td>
<td>52</td>
</tr>
<tr>
<td>16th Oct. 1948</td>
<td>99</td>
<td>4</td>
<td>104</td>
</tr>
<tr>
<td>7th Sept. 1949</td>
<td>63</td>
<td>86</td>
<td>149</td>
</tr>
</tbody>
</table>

B. Effect of Drawing Rights System on Overall Intra-European Surpluses (or deficits).

<table>
<thead>
<tr>
<th>Payments Agreement for</th>
<th>Overall surpluses in Intra-European Trade</th>
<th>Net Effect of Drawing Rights Actually Used</th>
<th>Overall Surpluses in Intra-Eur. Trade after Drawing Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948-9</td>
<td>754</td>
<td>542</td>
<td>416</td>
</tr>
<tr>
<td>1949-50</td>
<td>686</td>
<td>528</td>
<td>349</td>
</tr>
<tr>
<td>Oct. 1948-June '50</td>
<td>(21 months)</td>
<td>1112</td>
<td>1063</td>
</tr>
</tbody>
</table>


(i) Gross Total of All Monthly Bilateral deficits or surpluses 4025

(ii) Reversals of Bilateral Positions over Period 1897

(iii) Total Bilateral Surpluses (or deficits) over period (i-ii) 2128

(iv) Surpluses (or deficits) which could in theory be eliminated by Multilateral compensation 1016

(v) Overall Surpluses (or deficits) over period (iii-iv) 1112

D. How (i) of C. was covered. (In %)

Compensations 2%; Drawing Rights 32%; Gold 6%; Fluctuations in Bilateral Accounts: 60%

Notes: Overleaf.
Table 48 (continued).

Notes:
a—Obligatory for all members from October 1948 onwards, except for Portugal prior to July 1949 and Switzerland.
b—Figures in this column include also a few 'non-automatic' first category compensations and outside compensations notified to the Agent.
c--Is largely an increase in bilateral debts.

Source: Compiled from data given in the Annual Reports of the Bank for International Settlements.

The introduction of the drawing rights system made a bold, but only half-successful attempt to tackle this problem. The actual technique employed was subject to a very serious limitation in that drawing rights were granted on the basis of the estimated bilateral deficit of each country with another. Such forecasts inevitably proved inaccurate, with the result that drawing rights were not fully utilised. On a gross basis, in the 1948-9 scheme 806 million dollars worth of rights were established, but only 670 million dollars were utilised; in the 1949-50 scheme the figures were 784 and 703 million dollars respectively.

The inaccuracy involved in forecasting 78 bilateral relationships reduced the usefulness of the drawing rights technique. The position

1 The special loan to Belgium embodied in the 1949-50 scheme was made with the same objective in mind. Belgium was the only country for which drawing rights were considered inadequate because her estimated European surplus exceeded her deficit with the Western Hemisphere.


3 21st Annual Report of the Bank for International Settlements, p217. The gross amount of rights utilised, i.e. 670 million dollars in 1948-49 and 703 million in 1949-50, is, of course, different from the net effect of rights utilised which is shown in Table 48. B; for most countries granted rights to some countries and were granted rights by some other countries, so that, on a net basis, the total amount of rights utilised was less than indicated by the gross figures.

4 14 countries participated in the 1948-9 scheme. In certain bilateral relationships no drawing rights were established, either because the position was estimated to be in equilibrium or because "existing resources" were considered inadequate to cover any deficits or surpluses. "Existing resources" were certain bilateral or multilateral balances which had to be drawn upon before drawing rights could be utilised.
of the U.K. may be used as an illustration. The U.K. had a net surplus of 68 million dollars in 1948-9 and 16 million dollars in 1949-50; but at the same time drawing rights amounting to 218 million dollars under the 1948-9 scheme and to 102 million dollars under the 1949-50 scheme were exercised against the U.K., turning her from a European creditor to a large debtor and necessitating substantial payments in gold. It is as a result of the operation of this factor that, whereas for all countries, net drawing rights equalling 542 million dollars in 1948-9 and 528 million dollars in 1949-50 were utilised, the overall intra-European deficits (or surpluses) were reduced by only 182 and 158 million dollars respectively. (i.e. the difference between columns (i) and (iii) in Table 48 B.) The object of drawing rights was to eliminate all overall surpluses (or deficits) in intra-European payments.

In the 1948-9 Agreement all the drawing rights established were exclusively bilateral; in 1949-50 about a quarter were multilateral, i.e. they could be used for financing deficits with any country. This introduced a certain flexibility into the system. In practice, however, multilateral rights were to be used only after the exhaustion of all bilateral rights and after the Agent had performed all possible automatic compensations. As a result, out of 285 million dollars of multilateral rights established, 82 million dollars were not utilised; and of those utilised, only 63 million dollars of multilateral rights, i.e. 9% of total rights, were used in the direction requested by the debtor; the remaining were utilised automatically in the bilateral relationship.2

1 21st Annual Report of BIS, p.220. If the forecasting was correct, i.e. if the net rights granted against the U.K. equalled 68 million dollars in 1948-9 and 16m. dollars in 1949-50, then the drawing rights scheme would have achieved its purpose and left the U.K. in balance of payments equilibrium with all other participating countries taken together.

2 ibid., p.217.
(c) The third and final point about the working of the Intra-European Payments Agreements refers to the creation of certain wrong incentives. Both the countries granting and countries receiving drawing rights stood to lose if the rights were not fully utilised. The former stood to lose conditional aid, even though in the 1948-9 scheme conditional aid turned out eventually to be unconditional. In particular, the introduction of multilateral rights made it essential for the country granting them to have a balance of payments surplus with the countries which enjoyed those rights; for otherwise conditional aid would have been lost to the countries in which these multilateral rights were exercised or withheld altogether if these rights were not utilised at all. Multilateralism, therefore, in combination with the other features of the Agreements, could defeat its own ends by increasing trade restrictions.¹

Countries receiving drawing rights, on the other hand, had no incentive to economise with them; rather than lose them they would tend to run into deficit. In addition, with drawing rights generally bilateral, trade tended to be pushed into the wrong channels. Close¬ly connected with these considerations was the lack of opportunities for all member countries to strengthen their reserves as a result of the operation of these schemes.

The European Payments Union.²

The basic defects of the earlier European payments schemes were shown to be their bilateralism, and closely linked with it, the inadequacy of their liquidity provisions (i.e. drawing rights) which

¹ As it turned out, multilateral rights were not fully utilised, and about 80 million dollars were thus saved by E.C.A.
² For a select bibliography on the EPU, see, OEEC Bibliographies, No 1, 1951-54, published by OEEC, Paris 1955.
were extremely dependent on the successful forecasting of creditor and debtor positions; and lastly, the lack of any incentive for member countries to pursue what may be termed as an appropriate policy. How successful, then, was the EPU in avoiding the disadvantages associated with the earlier schemes, without at the same time creating difficulties of its own?

The mechanism through which complete multilateralism was achieved in the EPU was elegant in its simplicity. It involved treating the currencies of all constituent countries as one, through the creation of what may be termed a clearing bank for inter-member debits and credits. At monthly intervals, from reports from the Central Banks of participating countries, the Bank for International Settlements acting as the Agent, established the net position of each member vis-a-vis the Union. Each member, then, was not faced with a multiplicity of (gross) deficits and surpluses, but with a single account with the Union. The basic principle is that all member currencies are treated as if they were of equal softness (or hardness); and the chief implication is that no country has any incentive to discriminate between different members, irrespective of her balance of payments position with particular countries. Or alternatively, no country has any incentive or reason to conduct her trade on the basis of bilateral agreements.

In theory the arrangements for meeting temporary difficulties were intended to be as simple as those which established multilateralism. The basic provision was the granting to each other of credit facilities for settling current deficits to a predetermined extent.

1 This net position is established after taking account of all the transactions affecting the bilateral accounts between two members.
These credit facilities (or quotas) were unlike those provided by the IMF in that they were automatically granted; but still they were in a sense conditional in that current monthly deficits had to be settled partly by payment in a hard currency. In the first year of the operation of the EPU, however, the first 20% of a country's quota represented completely unconditional credit facilities in the sense that no gold payments were required. In the second and third years the gold-free proportion was reduced to 10% of the quota;¹ and since July 1st 1954 gold-free facilities have been abolished altogether.² On the whole, however, these changes were dictated not by criticism of the credit facilities, but by a desire to strengthen the convertible assets of the Union.

Under the earlier payments schemes, facilities in the form of grants (i.e., drawing rights) were provided on the basis of forecasts of deficits in the intra-European trade. The mechanism was imperfect and subject to many defects, but the criterion for granting settlement facilities was the correct one. In the EPU, where, in theory at least, American aid was not contemplated on a permanent basis, this route was not open. The credit facilities (quotas) provided by the EPU were generally equal to 15% of the total turnover of payments and receipts in respect of the visible and invisible trade of each country and its monetary area with all the other members and their monetary areas for the year 1949 (except in the case of Germany, Switzerland and the Benelux where a different year was used). The criterion of trade turnover, however, is almost totally irrelevant to the need for temporary settlement facilities because trade turnover bears no direct

¹ Second Annual Report of the Managing Board of EPU, p. 47.
or causal relationship to the probable magnitude of fluctuations in a country's balance of payments. It also underlines what probably is the basic weakness in the mechanism of the EPU by implying that within the EPU the creditor or debtor positions of individual countries will tend to be reversed over a period of time.

In any event, the quotas allocated proved to be inadequate in several instances, and had to be supplemented by other means. In part, and as a last resort, supplementary measures took the form of a departure from the basic objective of the EPU, i.e. trade liberalisation. But the supplementary provisions amounted chiefly to a further extension of credit to countries whose deficits exceeded or were about to exceed their quotas. Besides the straightforward increase of a quota (rallonge), the additional measures took many other forms.

In a way the EPU owed its relatively smooth functioning to continuous assistance from the United States. At the very start, the U.S. provided the Union with initial capital of 350 million dollars; this sum was intended partly to enable the Union to meet any excess of gold payments over dollar receipts, but above all, to inspire confidence in an institution which, if one is to judge by the elaborate provisions about the sharing out of capital among members in the event of its dissolution, was not given a very high chance of survival.

Moreover, the inadequacy of the quota mechanism was to some extent remedied by the allocation by the U.S. government, in the first year, of initial debit and credit balances within the Union, depending on the country's estimated position in the intra-European payments. This was essentially a continuation of the "indirect aid" principle of

These measures were described in Section A of this chapter.
the earlier schemes, but on what it was hoped to be an once-and-for-all basis. As it turned out, however, five countries continued for some years to rely partially on American assistance to meet their persistent deficits with the Union. Over the period 1951-2 to 1953-4, these countries received from the U.S. some 367 million dollars in the form of "special resources"; these resources were granted by the U.S. directly to the Union on behalf of countries which had run deficits in previous months. This technique was in two ways superior to that of drawing rights and initial balances: first, special resources were not all granted in anticipation of deficits, but some were granted retrospectively; secondly, they were made directly available to the Union, and not to the countries which granted drawing rights or were allotted initial debit balances.

In spite of such generous help, in many cases debts and credits often persisted for so long that they threatened to disrupt the mechanism of the Union, and at the same time made nonsense of the assertion that EPU facilities were of a short term nature. At the end of 1954-5, 559 million dollars of credit granted to the Union by creditors and 495 million dollars of credit granted by the Union to debtors had been outstanding for over three years. Considerable sums had also been outstanding for periods of one to three years. In fact, on June 30th 1955, only 15% of total credit granted to the Union by creditors and 20% of total credit granted by the Union to debtors had been outstanding for less than one year.

Such debts and credits could not be dealt with on the usual

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1 Since initial credit balances exceeded debit balances by about 75 million dollars, the effective U.S. aid given at the establishment of the Union was reduced from 350 to 275 million dollars.
3 Fifth Annual Report of EPU, p.33.
principles of the Union. The method usually adopted was that of making special repayments by the Union to the creditors, or of bringing creditors and debtors together on a voluntary basis so that bilateral amortization agreements could be negotiated. In fact, this technique was used from the very start, when pre-EPU debts were either funded or turned into "existing resources" and made available to creditors for settlement of their current deficits.\footnote{Incidentally, the U.S. again came to the rescue by agreeing with members whose debts had been termed "existing resources"--chiefly Britain--to reimburse them any dollars lost to the Union through the utilisation of existing resources.} The total amount of "existing resources" utilised was 100 million dollars. Bilateral debts were unfunded on June 30th 1950 amounting to 861 million dollars on a gross basis; by June 30th 1955 the largest part of this debt, i.e. 91\%, had already been repaid through the mechanism of the Union.

This technique of periodically reducing debts by special means was repeated twice, once in June 1952 and once in June 1954. The 1952 adjustments were of a rather limited nature and aimed at the reduction of the cumulative accounting surpluses beyond the quota of Belgium-Luxembourg and of Portugal. The 1954 arrangements were more comprehensive, and they could be said to have made possible the continued existence of the Union. All member countries except Turkey and Iceland took part in them. The result of these bilateral arrangements was that, against the total debt of 1142 million dollars due to the Union on the 30th June 1954, repayment terms, covering 858 million dollars and providing for an immediate payment by debtors in gold of 224 million dollars, were agreed upon. The Union also made direct repayments to her creditors out of her own convertible resources totalling 130 million dollars. The Union's debt to the creditors, which stood at 1416 million dollars on June 30th 1954, was correspondingly
reduced by 354 million dollars (i.e. 224+130). It should be noted, however, that the bilateral amortization agreements operated to reduce the debts due to and by the Union only to the extent that actual repayments were made, and the outstanding balances on these debts remained as debts to and claims on the Union.

This armoury of payments mechanisms designed to shield the goal of trade liberalisation from any set-backs due primarily to temporary disequilibria did not always prove equal to its task. On several occasions action taken within the machinery of the Union had to be supplemented by action taken by individual countries on their own.

It is, of course, impossible to enumerate the various types of national policies devised to meet such emergencies; in any case there is nothing distinctive about them. But one type of policy adopted by the U.K. had features which were distinctive to membership in a regional organisation, and therefore deserves brief mention.

At the end of July 1952, the U.K.'s cumulative deficit with the Union exceeded its quota by 158 million dollars. The U.K., in effect, ceased to be a full member of the Union since further deficits in excess of her quota had to be settled fully in gold. To meet this situation and, above all, to speed up the return to a position where payments to members would have had less than a 100% hard currency content, the U.K. introduced in August 1952 a dollar commodity arbitrage scheme whereby licences were granted for the importation of dollar commodities into the U.K. and their resale for sterling to EPU members. Total authorisations under this scheme which was in operation for two weeks amounted to 172 million dollars.

1 Fourth Annual Report of EPU, pp.96-100.
2 For more details of the effect of this scheme on the U.K.'s position in the EPU in the following months, see 23rd Annual Report of the Bank for International Settlements, p.211. Had it not been for the effects of this scheme, the U.K.'s cumulative deficit would have still exceeded its quota in December 1952.
The significance of this case as an indication of a general alternative mechanism of adjustment within the Union is rather limited. In the first place, only in very exceptional circumstances would a country be willing to become involved in additional dollar expenditure. Secondly, in the 1951-2 session the OEEC adopted a resolution asking member countries to control their re-export policies and facilities in such a way as to avoid aggravating debtor or creditor positions.\(^1\) In the particular case mentioned here the resale of dollar commodities by the U.K. must have met with the Board's approval since most of the commodities were bought by German and Dutch merchants at a time when Germany and the Netherlands enjoyed large surpluses in the EPU. But in general, a consistent re-export policy, if it is to meet the OEEC requirements, may well have to be accompanied by an unwelcome growth in official interference with forces affecting the direction of trade.

The third aspect of the EPU mechanism concerns the pressures and incentives which are placed upon members to keep them on even keel in their payments relations with each other. It is only if these incentives prove inadequate by themselves, or in relation to other forces and incentives emanating from outside the Union, that the liquidity provisions and adjustment mechanisms described in the preceding paragraphs would have come into operation. Alternatively, the credit facilities offer a breathing space within which the corrective mechanism can become effective. In fact, the liquidity provisions and incentive-plus-pressure mechanism are closely interconnected, and represent a concerted attack on two fronts upon the same problem.

In the preceding subsection, it was argued that, in the earlier

\(^1\) Third Annual Report of EPU, p.71.
European payments schemes, certain wrong incentives were present. These wrong incentives were not, of course, intentionally created; rather they were inherent in the mechanism of the schemes which was in turn, to a large extent, dictated by complete dependence on the U.S. aid. The EPU mechanism, on the other hand, was such that it allowed provisions designed to create incentives or disincentives to be explicitly incorporated into it. The objective of these incentives was in general to prevent the emergence of extreme creditor or debtor positions within the Union. Three aspects of the payments mechanism seem to bear most directly on this question: (a) the fact that debtors had to pay interest on the credit granted to them by the Union; (b) the requirement of fractional gold payments (or receipts) in settlement of deficits or surpluses; and (c) the cumulative principle which governed such payments (or receipts).

(a) The policy of the Managing Board with regard to rates of interest charged or paid by the Union was guided by two main considerations. "First, the desirability of allowing changes in the level of market rates of interest to influence the economic and financial position of Member countries; and second the need for balancing outgoings and receipts of the Union on account of interest payments". Accordingly, rates charged or paid by the Union were reviewed at frequent intervals. Rates charged to debtors were raised from 2%, 2 1/2% and 2 3/4% in 1950-1 for debts outstanding for less than a year, for one to two years, and for two or more years respectively to 2 3/4%, 3% and 3 1/8% respectively in the financial year 1954-5. The rate paid to creditors was uniform for all credit granted to the Union within their quotas, and was raised, between the same periods, from 2% to 2 1/4%.

1 Third Annual Report of EPU, page 90.
credit granted outside a creditor's quota earned interest in 1954-5 at the rate of 3% as against 2% in 1950-1.¹

The limitations of these provisions as corrective mechanisms are, in general, the same as those of orthodox monetary policy with the added disadvantage that exclusive reliance has to be placed on variations in the rate of interest. From the point of view of the Union's debtors, even a loan at 3% could not be considered as an expensive method of finance; the pressure to take remedial action was unlikely to be large. The Union could charge a higher rate of interest only in the quite exceptional cases of special credits falling outside the debtor quota.

The rate of interest is, further, a totally unsuitable instrument for exercising pressure on creditors to take steps to reduce their surpluses: if this objective had been paramount in determining the rates to be paid by the Union to its creditors, then the longer a debt had been outstanding, the lower the rate of interest paid by the Union to its creditors should have been. Such a practice would have been out of accord with the whole tradition of monetary policy, and, far more important, quite unacceptable to the Union's creditors. In practice the Union went as far as it would have been practicable to go by allowing its creditors to earn a uniform rate of interest, irrespective of how long the Union's debt to them had been outstanding.

(b) The EPU's interest rate policy was, in any case, never intended to be its main corrective mechanism; it was hoped that this role would be filled by the principle of fractional gold payments. Under this principle, a part of a country's monthly deficit

¹ Fifth Annual Report of EPU, Table 9, page 29.
(or surplus) with the Union had to be settled by payment in gold, the actual proportion varying (during the first four years of operation) with the country’s cumulative debtor or creditor position in the Union. If the whole quota had been utilised, 60% would have represented credit granted (or received) and the 40% gold. But again the scale for debtors was much more finely graduated than that for creditors. The proportion to be paid in gold by debtors increased by ten percentage points in each of the five tranches of their quotas rising from 20% in the first tranche to 70% in the fifth.1 Creditors, on the other hand, received no gold while their cumulative position was within the first 20% of their quota, but were paid on a fifty-fifty basis for surpluses between 20% and 100% of their quotas.

As in the case of interest charges, one can see in the unwillingness of the EPU to reduce the proportion of gold payments as a country’s creditor position increases the underlying necessity of offering prospective creditor countries some sort of a bribe. This is one of the reasons why gold payments did not prove as effective as had been expected. Essentially, gold payments were, and are still more today, part of the price deficit countries have to pay for making membership attractive to stronger countries. And when it became clear that today’s creditors would also be, by and large, tomorrow’s creditors, the price, which debtors have had to pay for not being left behind in the advance towards currency convertibility, was correspondingly increased.

The change of the basis for gold payments for both debtors and

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1 This was the scale in operation in 1952-3 and 1953-4. In the two first years of operation the scale was slightly different—the amount being paid in gold was slightly less in the first tranches of the quotas, but correspondingly larger in later tranches. The charges were merely intended to strengthen the convertible assets of the Union.
creditors in 1954-5 to 50% gold and 50% credit, irrespective of cumulative positions, was facilitated by the fact that "the position of most of debtor countries at that date was such that they would, in any event, have had to settle further deficit at least 50% in gold, either immediately or in the near future"\(^1\). Since August 1955, the settlement basis for current surpluses (or deficits) has been changed to 75% gold and 25% credit; this time the adjustment was "regarded as an important step in the preparation for the move to convertibility"\(^2\), and the transition to the European Monetary Agreement.

Gold payments, of course, placed some pressure on debtors to reduce their deficits with the Union. It was even argued that there was a danger "that the gold settlements introduced by the EPU may seriously hinder the development of trade between member countries..... The provisions for gold settlements with the EPU countries make them the obvious direction for import cuts"\(^3\). The implication of this statement is that gold payments are incompatible with the ultimate objective of trade liberalisation. This is only true in the sense that anything which makes European imports harder is necessarily, in the short period, an impediment to the expansion of inter-member trade; and the statement is incomplete in that it does not face up to the problem that a corrective mechanism of a sort is necessary if minor difficulties are not to be magnified beyond proportion.

This, of course, is not to say that gold payments act as an ideal mechanism, or even as a particularly effective one. In fact, gold payments failed to fulfil the hopes that were placed on them as incentives to remedial action on the part of debtor members, and could

\(^1\) Fourth Annual Report of EPU, p.105. The implication of this statement is, of course, as pointed out above, that the EPU began to become reconciled to the emergence of permanent debtors and creditors.

\(^2\) Fifth Annual Report of EPU, p.41.

not therefore have greatly impeded the expansion of intra-European trade. The reason for this failure is a simple one, though one which is often overlooked. As a rule, a country's balance of payments with all regions tends to improve or worsen at the same time; there is therefore no incentive on that account to curtail imports from one particular region in preference to another. Could then imports be curtailed according to their hard currency content? Even with a 50% dollar gold content, imports from other member countries are less likely candidates for the axe than imports from the Dollar Area which, of course, have a 100% hard currency content. But imports into Continental Western Europe form EPU countries (including the Sterling Area) and the Dollar Area account for the bulk of total imports—in 1954, for about 19 billion dollars out of total imports of about 22 billion dollars. Imports, then, from sources which have a smaller gold content than imports from EPU countries form only a very small proportion of total imports into Continental Western Europe. The position of the U.K. is different because she is a member of both the Sterling Area and the EPU; a very large proportion of her imports comes from the Sterling Area, and has therefore no hard currency content at all. When in payments difficulties, the U.K. has vastly greater opportunities and incentives than most other European countries for restricting imports from the EPU countries.¹

(c) Perhaps the greatest stabilising influence in the EPU was the operation of the cumulative principle. The "cumulative net position" of any country at any time was given by her overall surplus or deficit with all the other members taken together since the beginning

¹ To a much lesser extent the same consideration applies to some other countries, especially France, which have dependent territories overseas.
of the operation of the Union. It was this position which governed the proportion of gold payments (or receipts) during the first four financial years. Although, since July 1954, net cumulative positions have no longer determined the proportions to be paid or received in gold by creditors and debtors, the important implications of this principle have remained unchanged. For debtor countries these implications were that they need not wipe out their deficits completely before they could begin to earn gold (as it was the case with the bilateral agreements of the immediate post-war years); in fact gold would begin to flow back to cumulative debtors as soon as they had achieved a surplus in their current (monthly) balance of payments. The reverse was true for cumulative creditors: they began to pay gold as soon as there was a deficit in their current balance of payments with the Union.

The initial object of this principle was to enable member countries to effect trade liberalisation in the knowledge that they would be able to recover fairly quickly and consistently any gold losses they might have sustained in the process; the assumption was that difficulties would be of a temporary and reversible nature. In theory, it might appear that the cumulative principle as a corrective mechanism had a perverse effect; in particular, countries which had built up large surpluses might be tempted to take restrictive action as soon as they began to lose gold to the Union. In practice, however, this was not the case. First, the whole philosophy of the EPU was to place some of the responsibilities of adjustment on creditor countries. Second, in the context of full employment and the overstrained economies of recent years, large surpluses in the form of unrequited exports became increasingly embarrassing. On the side of the debtors, the cumulative principle as a corrective mechanism had
positively beneficial effect. Its impact was chiefly psychological. The knowledge that quick results would be forthcoming in the form of gold receipts often prompted debtors to take remedial action earlier than they would have done if they had known that they would have to eliminate their whole cumulative deficit before they could begin to earn hard currencies.

This subsection must be concluded by giving some broad indication of how successful the mechanism of the EPU was in achieving its main objectives, namely the prevention and elimination of large deficits and surpluses, which in turn might endanger the trade liberalisation programme. This is done in Table 49: this table compares the relative importance of all the mechanisms described in the preceding pages, and indicates the large extent to which the regular mechanism of the Union had to be supplemented by special means and techniques. It also shows the extent to which the relatively smooth functioning of the EPU was due to assistance received from the U.S. Whereas the picture which emerges from table 49, with compensations eliminating over three-quarters of all bilateral surpluses-plus-deficits for the period as a whole, is not entirely unsatisfactory, it must be pointed out that these combined figures conceal many extreme creditor or debtor positions on the part of individual countries at particular times. But, of course, not everybody favours the view underlying the institutional approach to external problems that the EPU, or, for that matter, any trade and payments organisation, had or should have an impact on the balance of payments of member countries which is decidedly more than marginal. On the contrary, many economists would argue that to expect the EPU to, say, bring by itself member countries nearer to general currency convertibility, savours of "a belief in sympathetic magic".1

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Total Bilateral deficits plus surpluses</td>
<td>6.3</td>
<td>8.7</td>
<td>5.3</td>
<td>3.9</td>
<td>3.5</td>
<td>27.8 100</td>
</tr>
<tr>
<td>(2) Multilateral Compensations</td>
<td>3.0</td>
<td>3.5</td>
<td>2.9</td>
<td>1.9</td>
<td>1.7</td>
<td>12.9 47</td>
</tr>
<tr>
<td>(3) &quot;Compensations through time&quot;</td>
<td>1.0</td>
<td>3.0</td>
<td>2.0</td>
<td>0.9</td>
<td>1.4</td>
<td>8.2 30</td>
</tr>
<tr>
<td>(4) Settled through special features of EPU mechanism</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
<td>+0.0</td>
<td>+0.0</td>
<td>0.6 2</td>
</tr>
<tr>
<td>(5) Balance: (1) minus (2), (3) and (4)</td>
<td>1.6</td>
<td>2.2</td>
<td>0.4</td>
<td>1.2</td>
<td>0.5</td>
<td>6.0 22</td>
</tr>
<tr>
<td>(6) Balance settled in gold</td>
<td>0.4</td>
<td>1.3</td>
<td>0.3</td>
<td>1.3</td>
<td>0.6</td>
<td>4.1 15</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Within quotas and &quot;rallonge&quot;</td>
<td>0.4</td>
<td>0.8</td>
<td>0.0</td>
<td>0.4</td>
<td>0.3</td>
<td>2.0 7</td>
</tr>
<tr>
<td>(b) Gold Payments through special mechanism</td>
<td>0.1</td>
<td>0.5</td>
<td>0.3</td>
<td>0.9</td>
<td>0.3</td>
<td>2.0 7</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Special resources paid on behalf of countries by U.S.</td>
<td>0.0</td>
<td>0.2</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.4 1</td>
</tr>
<tr>
<td>(ii) Deficits and surpluses settled 100% in gold outside quota and &quot;rallonge&quot;</td>
<td>0.1</td>
<td>0.3</td>
<td>0.2</td>
<td>0.3</td>
<td>-0.0</td>
<td>0.8 3</td>
</tr>
<tr>
<td>(iii) Other special gold repayments</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.6</td>
<td>0.4</td>
<td>0.9 3</td>
</tr>
<tr>
<td>(7) Balance settled in credit</td>
<td>1.2</td>
<td>0.9</td>
<td>0.1</td>
<td>-0.1</td>
<td>-0.1</td>
<td>1.9 7</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Within quota and &quot;rallonge&quot;</td>
<td>1.2</td>
<td>0.8</td>
<td>0.1</td>
<td>0.4</td>
<td>0.3</td>
<td>2.8 10</td>
</tr>
<tr>
<td>(b) Special credits</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
<td>-0.6</td>
<td>-0.4</td>
<td>-0.9 -3</td>
</tr>
</tbody>
</table>

Note: Totals may not add up because of rounding.

(Continued Overleaf.)
Notes: (continued from Table 49.)
a--The diminution in turnover of the Union in later years was due to the fact that from the 18th May 1953 eight countries (later nine and then ten) permitted multilateral arbitrage transactions involving their own currencies.
b--i.e. reversal of creditor or debtor positions over time.
c--i.e."Initial balances" as grants, existing resources in national currencies and the net effect of interest.
d--This covers the following items: "special repayments of credit" by the Union; "special repayments of credit" bilaterally; and "special repayments of credit" by France through the Union.
e--This item covers: initial position loans to Norway and Turkey; special credit granted to the Union by Belgium-Luxembourg; and reduction of credits in the Union due to special repayments of creditors.

Source: From material in Annual Reports of Managing Board of EPU.

Conclusion: Regional Payments Mechanisms in Perspective.

From the discussion of the EPU mechanism it should have become evident that the EPU was designed to cope with temporary, reversible balance of payments disequilibria in intra-European trade. This was the basic assumption underlying all its principles. For instance, the operation of the cumulative principle made it easy for members to recover any gold they had lost to the Union. Again, and this is the cardinal point, pressure to take corrective action (mainly in the form of gold payments) was based on the criterion of a worsening balance of payments within the Union. The mechanism of the Union was not designed to meet difficulties arising from the fact that the composition of trade of certain members was such that they tended to become structural (i.e. permanent) debtors or creditors to the Union.

The Sterling Area mechanism, on the other hand, was in design less concerned with temporary and reversible disequilibria within the region, though, of course, this objective was not entirely neglected. When the Sterling Area came into being in the early thirties, its primary aim was to make possible the continuation of trade on the same lines as in the days of the gold standard. This trade was triangular in nature. The U.K. undertook to supply members of the outer Sterling Area with the manufactured goods they needed, while the lat-
ter on their part supplied directly part of the raw material and
food requirements of the U.K., and also enjoyed a surplus in their
balance of payments relations with the outside world, especially with
what has come to be known as the Dollar Area. Thus the U.K. relied
on the outer Sterling Area for her supply of dollars. The Sterling
Area mechanism, therefore, was based on the recognition of the exis-
tence of permanent debtors and creditors within the region, and also
permanent debtor or creditor positions between individual members of
the Sterling Area and the outside world.¹ The feature of the Ster-
ling Area which chiefly reflected the state of affairs was the absence
of any definite provisions about the distribution of benefits and bur-
dens within the Area. The sharing out was in a sense automatic since
the benefits to the U.K., i.e. chiefly provisions of dollar exchange,
were of an entirely different nature from the benefits most of the
outer Sterling Area countries expected to obtain from Sterling Area
membership (for example, free access to the U.K. capital market).
There was no question of sharing out hard currencies.

What in fact happened was that the post-war patterns of trade
played havoc with these payments mechanisms. Within the Sterling
Area, all the independent members except Ceylon were at one time or
another net spenders of dollars: there could no longer be any ques-
tion of structural dollar earners. Within the EPU, on the other hand,
certain countries, including Switzerland, and in later years Germany
tended to become permanent creditors to the Union. Thus both the
Sterling Area and the EPU mechanisms were called upon to deal with
problems entirely different from those for which they had been desi-
gned: the EPU was faced with the problem of permanent creditors,

¹ On current and capital accounts combined.
whereas the Sterling Area mechanism found itself under pressure to devise an equitable way of distributing hard currency earnings. In principle, if there were no other considerations, the Sterling Area mechanism would have been more suitable for the problems facing the EPU; and vice versa, some of the Sterling Area difficulties could have been best overcome by a system built on lines akin to those of the EPU.

Now, if within a regional institution there are structural debtors or creditors which are put under pressure to take remedial action because of their regional deficits or surpluses, the forces making for self-sufficiency (that are always associated with regionalism) would be immensely strengthened. The EPU mechanism, designed to meet the entirely different circumstances of temporary disequilibria in fact tended to increase the degree of self-sufficiency within the region. Such a tendency was in operation in spite of often repeated denials: "It has never been the intention that EPU should lead to the creation of a closed trading zone and therefore there can be no question of calling on creditors within the EPU to seek to balance their positions within it artificially by methods which would violently distort their trade... None the less, it remains the responsibility of the creditors in EPU to assist the debtors in EPU by importing as liberally as possible....."

The fact, therefore, remains that the mechanism of the Union, by putting pressure on structural creditors (or debtors) accentuates the conflict between the short-term objective of the smooth functioning of the Union, and the long-term goal of a system of free trade on a world-wide basis and general currency convertibility. It should never be forgotten that the EPU was envisaged from the outset as a

transitional solution to Europe's payments difficulties.

The conflict between short and long term objectives in the Sterling Area is the other way round. The Sterling Area was never intended as a temporary institution. It may well be that the pattern of trade in post-war years increased the likelihood of a permanent existence by drawing attention to the fact that practically all the independent members of the Sterling Area, and not merely the U.K., were on occasion dependent on the Dollar Pool for their hard currency requirements. The conflict here is between the desire of the U.K. to return as soon as possible to a system of convertible currencies and at the same time to maintain the Sterling Area as a permanent feature of the world economic situation. The question is whether any of the functions of the Sterling Area as a payments mechanism are compatible with general currency convertibility.

1 Assuming, of course, that the colonies which, as a group, were consistent dollar earners, remain within the Sterling Area.
The Problems of Discrimination.

Some balance of payments effects spring inevitably from effective membership in any regional organisation which aims primarily at the expansion of inter-member trade. But certain features particular to individual regional institutions may accentuate or minimise the degree to which these inevitable effects are present; or, more important, they may create new balance of payments effects which are not present or inherent in the principle of trade regionalism, but are rather the outcome of the distinctive characteristics of a specific regional institution.

These balance of payments effects will be examined only in relation to the United Kingdom. Although, in general other members are subjected to similar influences as the U.K., their impact may vary from country to country, depending on every conceivable set of circumstances. The position of the U.K. is rather unique in that she is a member of both the Sterling Area and the EPU; moreover, through the U.K., countries of the Overseas Sterling Area are linked with the EPU.

Any regional institution involves, by definition, some discrimination against non-member countries. It is therefore relevant to ask whether U.K. membership in the Sterling Area and the EPU had any effect on the foreign economic policy of the United States; in particular, whether a more liberal U.S. import policy would have been likely in the absence of these regional organisations.

Official and unofficial opinion in the U.S. was, on the whole, extremely critical of the Sterling Area. Imperial Preference, for instance, which in American eyes is closely associated with the Sterling Area system, received an early blow during the negotiations for the Keyne's Loan. The EPU, on the other hand, was largely an American
inspired institution from the beginning; official comment at least was generally favourable,¹ and was, of course, translated into continuous and generous financial help. To a large extent this discrepancy in the American attitude toward two institutions with so much in common is explained by the different nature and scope of discrimination against outsiders on the part of the Sterling Area and the EPU. In the first place, the EPU was always looked upon as a temporary institution which, far from perpetuating discrimination, would speed up the arrival of conditions that would make it possible for member countries to accord to the U.S. the same treatment as they accorded to each other. The Sterling Area, on the other hand, was always burdened in American eyes with a much longer history—it has seldom been realised in this connection that the functions of the institution were substantially modified over the years—and with the prospect of a permanent existence.

In the second place, it would appear that Western Europe in itself was not likely to become a self-sufficient unit; members of a European scheme would still have to depend on trade with the outside world for supplies of a number of important commodities. The Sterling Area, however, linking together a large industrial nation and a number of primary producing nations, had good prospects of reaching a fairly high degree of self-sufficiency. However, American approval of the EPU does not seem to have been substantially modified as a result of the fact that the countries of the Overseas Sterling Area,

¹ But not always; there was even opposition within the U.S. government to making a grant to EPU. And of course particular policies of EPU were often severely criticised in the U.S. For a very vigorous American attack on both the EPU in principle and the pressure put on regional creditor countries like Belgium to take discriminatory action against imports from the U.S., see M.L. Hoffman: European Payments: An American View, in Lloyd's Bank Review, July 1952, pp.13-27.
though not official members, were effectively linked to the EPU through the U.K. Still there always remained a feeling in the U.S. that the system of preferential duties of the Sterling Area was especially directed against them.

Thirdly, the mechanism of the Sterling Area in the post-war years was to some extent shaped by the need to use it as an instrument of discrimination against the U.S. Discrimination took the form of restrictions on imports of dollar goods; the severity of the restrictions was determined not by national considerations, but at the regional level by reference to the hard currency reserves of the area as a whole. In the EPU, members were free to decide their own commercial and payments policies in relation to a non-member country. Article 1 of the Liberalisation Code recognised that any member, if it so desired, could be free to extend the liberalisation measures to a non-member country. In theory, then, it was quite possible for, say, Germany to pursue a more liberal policy with regard to imports from the U.S. than from France. It should, however, be made clear that it does not necessarily follow that discrimination against the dollar in the Sterling Area was more severe than in the EPU: within the latter, the extent of discrimination was simply decided at the national level, and tended to vary with the circumstances of each individual country. But "organised" or "group" discrimination appears to be much more objectionable than discrimination exercised at the national level.

For some good and some not so good reasons, then, the U.S. took infinitely greater objection to the principles and policies of the Sterling Area than to those of the EPU. But one still suspects that U.S. trade policy was unlikely to have been different from what it actually

\[1\] Of course, countries of the Overseas Sterling Area are not subject to the provisions of the Code of Liberalisation.
was, even if some of the principles of the Sterling Area had been modified in a way approved by the U.S., or even if the Sterling Area had not existed at all. This statement is not, of course, made in reference to the many real changes which substantial modification of the Sterling Area would introduce into the international economic situation; rather it is made in reference to the possible psychological reactions and change of attitude on the part of the U.S. Several reasons can be advanced in support of this view.

First, in the post-war period, the dividing line between politics and economics, which is always vague, was literally non-existent. In the U.S., economic considerations were, as a rule, subordinated to the political goal of strengthening the Western World. It is extremely unlikely that the U.S. government in the post-war years often indulged in a policy of positive economic retaliation; the margin within which pressure for economic advantages could be exercised without endangering Western unity or weakening the economics of Western European countries was extremely narrow. Secondly, in any case, the provocation provided by the Sterling Area was not really strong. However, the U.S. generally grudgingly recognised that, in view of the general shortage of dollars, some control of dollar expenditure on the part of foreign countries was inevitable; and its support of the EPU indicated approval of the view that, at least for the time being, non-dollar trade should not be strangled by the need to impose import restrictions on a non-discriminatory basis.

Thirdly, the chief field in which there was room for substantial American concessions is that of tariffs. But, as it has been repeatedly pointed out in another part of this thesis, the tariff structure of the U.S. was designed to offer protection to domestic industries and reflects mainly the influence of different pressure groups. A
removal of the principle of discrimination on the part of members of the Sterling Area (which would, of course, mean the virtual end of the system) would, by and large, benefit entirely different industries and interests in the U.S. from those which now enjoy the protection of the American tariff; it is therefore unlikely that the end of discrimination would lead to any large reciprocal concessions on the part of the U.S. in the form of tariff reductions. The situation would have been entirely different if U.S. measures which restricted imports had been imposed for balance of payments reasons.

The preceding remarks are not intended to give a completely clean bill to the U.S. In any case, the fundamental question of whether a creditor country is entitled to pursue a foreign trade policy like that of the U.S. is not at stake here. But in the narrower field, examples of retaliationary action can be cited. Moreover, it can be argued that the U.S. often implicitly threatened to take retaliationary measures in a, so to speak, "negative" manner. As an illustration, one could hazard a guess that, even though the U.K. could obtain the bulk of her supplies of certain commodities from non-dollar sources, she would refrain from discriminating against the U.S. for fear that, for example, American tobacco or film interests would exercise pressure on the U.S. government to take some sort of action against the U.K. It would seem that the U.S. accepted the principle that other countries were entitled to discriminate against her up to a point but no further; the maintenance of the status quo in the application of discriminatory restrictions thus represented the minimum of her demands. But such "negative" retaliation does not affect the opinion expressed here that the principle of discrimination inherent in the regional approach to trade and payments problems did not influence the U.S. to take (or refrain from taking) action which would have aggravated (improved) the
The Incentive to Export to Hard-Currency Areas.

The establishment of a regional organisation, by making possible an increase in inter-member trade, somewhat reduces the incentive to export to non-member countries. This is probably by far the most important balance of payments effect inherent in the regional approach. Particular features of the Sterling Area and the EPU further tended to enhance or minimise the importance of this effect. The Sterling Area mechanism probably did the former, at least in comparison with the EPU; and not only because trade within the Sterling Area, unlike trade within the EPU, did not involve any gold payments.

A number of circumstances and features of the mechanism of the Sterling Area combined to put pressure on the U.K. to send an increasing proportion of her exports to Sterling Area destinations. During the war, the countries of the Overseas Sterling Area built up huge sterling balances; these balances, which were further replenished during the Korean boom, enabled the overseas members to embark on periodic bursts of overimporting without undue worry about the means of financing them. At the same time, sterling remained to members of the area a currency freely convertible into dollars; this official convertibility was, of course, maintained on the understanding that the overseas members would exercise restraint in their dollar purchases. But the U.K., on her part, undertook to supply the overseas members with most of the goods to which their enormous foreign exchange reserves (held in sterling) appeared to entitle them. As a result, Britain generally treated the Sterling Area as a relatively hard currency destination for exports; for, as Professor Fleming put it, "failure on
Britain's part to supply the area with commodities of certain types may lead to an enhanced need for, and purchase of dollar goods. 1

What was basically wrong with these arrangements was the tendency of the U.K. government to regard exports to Overseas Sterling Area countries as "dollar saving". The term "dollar-saving" is not very meaningful for practically every export can be included in this category. 2 Moreover, these exports were dollar-saving only to a limited extent: the term implies that if the U.K. did not export these commodities, the Overseas Sterling Area countries would have imported them from the U.S. In fact, the number of Sterling Area countries with sufficiently large net earnings of hard currencies to have done so was rather small. Many Overseas Sterling Area countries were frequently net spenders of dollars.

The proportion of Britain's exports going to Sterling Area destinations has increased considerably since pre-war days: from about 39% in 1937 to approximately 50% in most post-war years. There is no way of proving conclusively that, if these additional exports had not been absorbed in the Sterling Area, they would have gone to other parts of the world including the Dollar Area. But the nature of the Overseas Sterling Area's demands for British exports makes this a highly probable supposition. As a result of the faster rate of industrialisation, the needs of the Sterling Area, i.e. the increased import needs of the Sterling Area, were mostly for capital goods. The following table shows that capital goods formed a large proportion of the U.K.'s total exports to the Sterling Area. It also indicates quite clearly that the increase in the Overseas Independent

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1 Fleming, op. cit., p.349.
Sterling Countries' imports of capital goods from the U.K. between 1938 and 1951 was considerably larger than the increase in their total imports from the same source. But the world market for capital goods was expanding very fast, and opportunities for the export of capital goods were probably brighter than in any other field.

Table 50.

U.K. Exports of Capital Goods to Independent Members of the Overseas Sterling Area.\(^a\) (Million Dollars at 1948 prices)

<table>
<thead>
<tr>
<th>1938</th>
<th>1948</th>
<th>1951</th>
<th>% increase 1938-51</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total U.K. Exports to O.S.A.</td>
<td>1440</td>
<td>1922</td>
<td>2644</td>
</tr>
<tr>
<td>U.K. Capital Exports to O.S.A.:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metals and Manufactures</td>
<td>203</td>
<td>222</td>
<td>289</td>
</tr>
<tr>
<td>Machinery</td>
<td>276</td>
<td>487</td>
<td>602</td>
</tr>
<tr>
<td>Transport Equipment</td>
<td>119</td>
<td>204</td>
<td>374</td>
</tr>
<tr>
<td>Chemicals</td>
<td>68</td>
<td>99</td>
<td>160</td>
</tr>
<tr>
<td>Total:</td>
<td>666</td>
<td>1012</td>
<td>1425</td>
</tr>
</tbody>
</table>

\(^a\)--Australia, New Zealand, South Africa, India, Pakistan, Iraq, Burma and Ceylon.

\(^b\)--Excluding personal cars.

Source: Calculated from Table IV, in the Economic Survey of Europe since the War (Economic Commission for Europe, U.N. Geneva, 1953.)

The operation of a "disincentive" to export to hard currency areas on the part of the overseas members of the Sterling Area was also a matter of importance for the U.K. because of the system of a common dollar purse within the Sterling Area. In principle, the dollar expenditure of the Overseas members was governed by the hard currency reserves for the area as a whole. Thus an increase in the U.K.'s
imports from the Sterling Area and a corresponding increase in the sterling assets of the overseas members would not lead to an enhanced pressure on the Dollar Pool. But insofar as goods of the outer Sterling Area which now found their way to the U.K. market might have been exported to the Dollar Area, the "disincentive" would again result in the loss of hard currency for the Sterling Area as a whole.

The proportion of independent Overseas Sterling Area exports going to the U.S. remained approximately unchanged between 1937 and 1953 at about 9%. The proportion going to the U.K. (about 36%-37%) was also about the same at the two dates; but in practically every case, as is shown in the following table, the proportion of the exports of Independent members of the Sterling Area going to Overseas Sterling Area destinations expanded substantially.

Table 51.

<table>
<thead>
<tr>
<th>Year</th>
<th>Australia</th>
<th>New Zealand</th>
<th>S.Africa</th>
<th>Ceylon</th>
<th>India b</th>
<th>Pakistan b</th>
</tr>
</thead>
<tbody>
<tr>
<td>1937</td>
<td>9</td>
<td>4</td>
<td>13</td>
<td>15</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>1953</td>
<td>16</td>
<td>5</td>
<td>23</td>
<td>23</td>
<td>25</td>
<td>18</td>
</tr>
</tbody>
</table>

a—Including Colonies.
b—Increase partly due to division of Indian Sub-Continent.

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1 This does not measure fully the loss of Overseas Sterling Area exports to the Dollar Area due in part to the operation of the pooling system. As Mr Zupnick points out, "the volume of domestic expenditure which the availability of a specified amount of hard currency reserves can support is a multiple of these reserves....The ultimate drain on Sterling Area resources is thus measured not by the direct drawings on the central pool alone, but by these drawings in conjunction with the complementary resources obtained either from the U.K. or from domestic sources." See, E.Z. Zupnick, The Sterling Area's Central Pooling System Reexamined, in Quarterly Journal of Economics, February 1955, p. 81.
Within the EPU, the impact of the "disincentive" on the payments position of the U.K. was considerably smaller. In the first place, the facilities provided for the encouragement of inter-member trade were more limited than those of the Sterling Area. The credit facilities offered through the EPU to European countries by Britain amounted to 636 million dollars (i.e. 40%, 50% and 75% of her creditor quota as the gold-credit basis was being modified). This compared with some 2462 million pounds liabilities to the Sterling Area countries at the end of 1945; about 2000 million pounds of these assets were owned by the independent members of the Area and could therefore, as a rule, be used for paying for imports from the U.K. Moreover, within the EPU, in utilising most of the credit facilities, debtors had to make substantial payments in gold. The proportion of gold payments to credit increased considerably over the period of existence of the EPU. At present, the full utilisation of the credit facilities provided by the U.K. would involve the debtors to the Union in payments in gold equal to 1908 million dollars. In general, then, the "disincentive" was less potent within the EPU because to European countries the U.K. was less a soft currency source for imports than she was to overseas members of the Sterling Area.¹

In the second place, within the EPU each member decided her dollar expenditure by reference to the level of her own hard currency reserves alone. For instance, France was not worried by the fact that excessive imports from the U.K. might result in the loss of dollar receipts by Britain, in the same way as Britain might be concerned about her imports from, say, Australia. For there was no pooling of hard

¹ The fact that since 1951, Britain has been a net cumulative debtor to the Union does not, of course, affect the possibility that some U.K. exports may have been diverted from the Dollar Area to EPU destinations. A "disincentive" to export to hard currency areas is present irrespective of whether a member is a creditor or a debtor within the region.
currency resources in the sense that this was done in the Sterling Area. The effects of the absence of a common purse were two-fold. The mutual lack of concern about loss of dollar earnings made for a greater expansion of inter-member trade than in the Sterling Area; in this respect, then, possibilities of export to the Dollar Area were impaired to a larger extent than was the case within the Sterling Area. But this effect was probably dwarfed by the fact that within the EPU the reduction of the incentive to export to hard currency areas actually affected the level of U.K. dollar reserves only from one direction, namely, from the point of view of the U.K.'s exports to the EPU area; as far as imports from that region (i.e. exports of France, Germany and other members to Britain) were concerned the reduced incentive to export to the Dollar Area had no direct repercussion on the U.K.'s dollar reserves.\(^1\) There is, however, one important qualification: to the extent that the establishment of the EPU led to the diversion of exports of the non-participating Overseas Sterling Area members from the Dollar Area to EPU destinations, the Dollar Pool of the area (and the U.K.) were adversely affected in a direct manner.

The third consideration refers to the actual increase in Sterling Area exports to Continental Western Europe, and the composition of British exports to EPU countries. It has already been pointed out that, in the last few years, the trade of Western European countries has been expanding much faster than world trade. Between 1948, the year which saw the birth of the OEEC, and 1954, imports into Continental Western Europe from all sources rose from 14.7 billion dollars to 22.8 billion, i.e. an increase of 55% or just over 8 billion dollars (current prices). But about three-quarters of this increase repres-

\(^1\) Indirectly, of course, the U.K. is greatly concerned about the ability of her fellow members to earn dollars. The existence of the EPU depends ultimately on this factor.
ented trade between Continental Western European countries themselves. Exports from the U.K. to Continental Western Europe showed only a very moderate expansion of less than 550 million dollars (about 25%). However, exports from the Overseas Sterling Area rose between the same dates by about 1.1 billion dollars or 100%. Thus, it can be seen quite clearly that the impact of the OEEC Liberalisation Programme and of the EPU facilities on trade expansion was infinitely stronger in the case of the Overseas Sterling Area than in the case of the U.K. itself. The combination, therefore, of the unique position of the U.K. as a member of both regional institutions and as a link between the Overseas Sterling Area and the countries of Western Europe, together with the policy of pooling dollar earnings with the Sterling Area, appears to make it possible for the U.K. to lose substantial amounts of hard currency through the diversion of Overseas Sterling Area exports from the dollar destinations to less hard countries of the EPU.

Again no amount of evidence can prove conclusively whether these Sterling Area exports might have found their way to the outside world, and especially to the Dollar Area. But an examination of the composition of these exports may make possible an intelligent guess. Table 52 on the following page gives some of the main exports of the Overseas Sterling Area to the most important Continental Western European countries and to the U.K. In one sense, the loss of dollars to the Sterling Area Pool as a result of enhanced European demand is unlikely to have been very large. Well over half of the total imports into the principal Continental European countries from the Overseas Sterling Area was made up of two commodities, namely raw wool and crude petroleum, which have little prospects of selling at present in substantially increased quantities in the United States market. This statement is made in the light of existing import restrictions in the U.S. If
these were to be removed, many Overseas Sterling Area commodities, especially wool, might be exported in much larger quantities to the U.S. In another sense there was an indirect loss of dollars. Many of the Overseas Sterling Area Commodities exported to Western Europe were subsequently re-exported by Continental merchants to the U.S. They could compete successfully with British exporters because they used a cheaper type of sterling, i.e. transferable sterling.

Table 52.
Selected Imports of Principal Continental Western European Countries* and of the U.K. from the Overseas Sterling Area, July 1953-June 1954. (Million Dollars; Current Prices; cif)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Continental Europe</th>
<th>U.K.</th>
<th>Commodity</th>
<th>Continental Europe</th>
<th>U.K.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Petroleum</td>
<td>766.3</td>
<td>546.0</td>
<td>Coffee</td>
<td>27.3</td>
<td>26.3</td>
</tr>
<tr>
<td>Raw Wool</td>
<td>601.1</td>
<td>468.3</td>
<td>Wheat, unmilled</td>
<td>13.4</td>
<td>28.9</td>
</tr>
<tr>
<td>Rubber</td>
<td>112.2</td>
<td>117.0</td>
<td>Refined petroleum</td>
<td>11.5</td>
<td>56.7</td>
</tr>
<tr>
<td>Raw Cotton</td>
<td>65.0</td>
<td>68.6</td>
<td>Timber</td>
<td>10.5</td>
<td>45.8</td>
</tr>
<tr>
<td>Copper</td>
<td>53.9</td>
<td>158.3</td>
<td>Maize, unmilled</td>
<td>8.7</td>
<td>4.2</td>
</tr>
<tr>
<td>Oilseeds</td>
<td>47.7</td>
<td>187.9</td>
<td>Raw Tobacco</td>
<td>5.0</td>
<td>64.7</td>
</tr>
<tr>
<td>Fats and Oils</td>
<td>34.0</td>
<td>97.9</td>
<td>Sugar</td>
<td>0.9</td>
<td>243.9</td>
</tr>
</tbody>
</table>

*--The countries covered are: France, W. Germany, Italy, Belgium-Luxembourg, Netherlands and Sweden.


The U.K.'s exports to Continental Western Europe, on the other hand, consisted chiefly of manufactured goods. Though the increase since 1948--both in absolute and percentage terms--has been considerably less than in the case of the Overseas Sterling Area's exports, their composition suggests that some of them were likely to be potential
exports to the Dollar Area. Table 53 gives the approximate percentage distribution of British exports to all Western European countries; the table is based on exports in the first half of 1954 at 1950 prices.

Table 53.
Approximate Commodity Distribution of U.K. Exports to Western Europe, Based on Exports in the First Half of 1954 at 1950 Prices.

<table>
<thead>
<tr>
<th>Commodity Group</th>
<th>Per Cent</th>
<th>Commodity Group</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, drink, tobacco</td>
<td>5</td>
<td>Electric Machinery</td>
<td>5</td>
</tr>
<tr>
<td>Mineral Fuels and Petrol Products</td>
<td>12</td>
<td>Tractors, other than steam</td>
<td>2</td>
</tr>
<tr>
<td>Metallic ores and base metals</td>
<td>7</td>
<td>Railway vehicles</td>
<td>1</td>
</tr>
<tr>
<td>Textile fibres, natural</td>
<td>5</td>
<td>Road motor vehicles</td>
<td>9</td>
</tr>
<tr>
<td>Other raw materials</td>
<td>1</td>
<td>Other vehicles</td>
<td>4</td>
</tr>
<tr>
<td>Metal manufactures</td>
<td>5</td>
<td>Chemicals</td>
<td>8</td>
</tr>
<tr>
<td>Power generating machinery (except electric)</td>
<td>3</td>
<td>Textile manufactures and clothing</td>
<td>11</td>
</tr>
<tr>
<td>Agricultural machinery</td>
<td>1</td>
<td>Commodity not separately shown</td>
<td>12</td>
</tr>
<tr>
<td>Metal working, mining, construction and other industrial machinery</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Economic Survey of Europe in 1954, op.cit., Table XLVIII.

However, not too much significance should be attached in this connection to the composition of exports: the fact that the actual exports to Western Europe may or may not look likely exports to, say, the United States is only a very crude measure of the dollar exports lost through the existence of a softer or easier market in Western Europe. For instance, suppose that commodity \( x \) which is now exported by the U.K. to the EPU area is quite unsuitable for export to the U.S. market; if for one reason or another the market for commodity \( x \) in the EPU was partially cut off, it is quite reasonable to assume (especially if \( x \)
is a manufactured article) that this would exercise pressure on the U.K. to switch to the production of a commodity with better prospects of export to the U.S.

The Mechanism of Adjustment.

The mechanism of the EPU and the Sterling Area, through which pressures are placed on, and incentives offered to, members not to build up extreme creditor or debtor positions within the region, has already been discussed. Here consideration will be given to some of the implications of this mechanism for the balance of payments of the United Kingdom.

These, so to speak, indirect implications of effects revolve around the concept of inflationary pressures. If members of a regional organisation could remain in approximate regional payments equilibrium, then the establishment of a regional institution need not necessarily be accompanied by the setting into motion of inflationary pressures. In this sense, the implications which are discussed here are not inherent in the principles of regionalism. But, in practice, within both the EPU and the Sterling Area there emerged countries, which, due to the structure of their economy and trade, tended to be permanently in deficit or surplus within the region. This tendency is likely to be present in any regional group which does not aim at self-sufficiency.

Within the Sterling Area, the status of the U.K. has consistently been one of a substantial creditor. Within the EPU the position is much less clear-cut. Since the large deficit of 1951, the U.K. has enjoyed moderate surpluses with the EPU in 1952, 1953 and 1954; but in 1955 the trend appears to have been reversed once more. The position is complicated by the fact the the U.K.'s status in the EPU was not affected only by the British balance of payments, but also

1 Chapter 8, Section B.
by the Overseas Sterling Area transactions with OEEC countries. The Rest of the Sterling Area had moderate surpluses of 38 million pounds, 20 and 31 million pounds in 1951, 1952 and 1953 respectively, and a very small deficit in her transactions with the OEEC countries. The factors which affect sterling in general (such as the level of commodity prices) are so complex and unpredictable that it is very hard to decide whether the Sterling Area is normally a structural debtor or creditor in trade with Western Europe. The position so far is accurately described by saying that on some occasions the U.K. was exposed to the pressures placed on creditors and, on other more frequent occasions, to those placed on debtors within the EPU. Further, the extraordinary nature of some of the transactions which affected the position of sterling in the EPU suggests that, in the normal course of events, the U.K. would tend to be an EPU debtor.

Take first the implications of the creditor status of the U.K. within the Sterling Area. Since 1948 the U.K. has had a yearly balance of payments surplus on current account with the Rest of the Sterling Area (R.S.A.) of at least 250 million pounds (except in 1953). No one will deny that an export surplus of such a magnitude must exercise a strong inflationary pressure on the already overstrained economy of the U.K. But, after all, it may be argued, this is merely a regional surplus, and can be used by the U.K. to make additional purchases from outside sources, including the Dollar Area, which can supply her with the goods she needs. Directly, this is impossible because the U.K. surplus with the R.S.A. simply represents a diminution in the sterling balances held by members of the Overseas Sterling Area. Indirectly, if the corrective mechanism of the system worked satisfactorily, this would be quite possible since the Overseas Sterling

1 Cmd 9430, p.45.
Area members are expected to surrender to the common Dollar Pool most of their hard currency earnings. In other words, if the R.S.A.'s import surplus with the United Kingdom was approximately matched by their contributions to the Dollar Pool, the U.K. need not be exposed to inflationary pressures generated abroad. In fact, as the following table indicates, this condition was not generally fulfilled during the post-war years.

Table 54.

Comparison between the Rest of the Sterling Area's Import Surplus on Current Account with the U.K. and R.S.A. Transactions with the Dollar Area.

(Million Pounds.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rest of Sterling Area's deficit with the U.K.</td>
<td>-254</td>
<td>-293</td>
<td>-287</td>
<td>-335</td>
<td>-379</td>
<td>-173</td>
<td>-269</td>
</tr>
<tr>
<td>Total R.S.A.'s transactions with Dollar Area</td>
<td>-10</td>
<td>14</td>
<td>269</td>
<td>181</td>
<td>109</td>
<td>165</td>
<td>166</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.K. Colonies</td>
<td>58</td>
<td>66</td>
<td>155</td>
<td>174</td>
<td>139</td>
<td>101</td>
<td>108</td>
</tr>
<tr>
<td>Other Sterling Area Countries</td>
<td>-68</td>
<td>-52</td>
<td>114</td>
<td>6</td>
<td>-30</td>
<td>64</td>
<td>58</td>
</tr>
</tbody>
</table>

Sources: Cmd 9430, page 12, pp.2899 and Cmd 8976 pp.44-5.

In part this inability of the Overseas Independent Sterling Area to live within her dollar earnings was to be explained by the accelerated rate of economic development of the post-war period. But it was mainly the result of the Sterling Area mechanism itself; in particular, the practice of dollar pooling and "financing deficits through drawing on the resources of the central pool contributed to the inflationary pressures in the overseas Sterling Area by affecting a partial divorcement between the financial, economic and commercial policies.
pursued by these countries and the direct responsibility for the financing of the possibly ensuing deficits on international account". Of course, the pooling mechanism cannot be considered in isolation but must be taken in conjunction with the absence of either any well defined criteria for sharing out hard currency earnings among members, or of a control authority with the power to enforce policies on all members in the light of the needs of the area as a whole.

The technique of coordinating policy within the Sterling Area did not progress beyond the embryonic stage, and at the policy making level, in the form of periodic conferences of Commonwealth Ministers of Finance, is far from continuous. Table 54 above shows quite clearly the extent to which the burden of adjustment for the smooth working of the system was unloaded on the Colonies whose import policies are more amenable to direction or persuasion from London. This is not to criticise the movement of funds from the Colonies to the U.K. in the form of dollar exchange: the criticism often made, that the U.K. is a net importer of capital from the Colonies on a substantial scale, does not stand up to the available evidence. It merely indicates that the Sterling Area mechanism proper would have probably broken down had it not been for the persistent dollar surpluses of the Colonial territories.

Can one not remove the basic cause of trouble, namely the deficit of the R.S.A. with the U.K.? The question is not really meaningful since the Sterling Area was originally built up on the principle of financing triangular trade between the U.K. and the Overseas Sterling Area on the one hand and the U.K. and the outside world, including North America, on the other. In any case it has already been

1 E.Zupnick, op.cit., p.75.
pointed out that the corrective mechanism of the Sterling Area was not sufficiently strong to prevent the overseas members as a whole being large debtors in their trade with the U.K. The combination of vast sterling balances accumulated during the war and of the form in which these assets were held does not make it worthwhile for the overseas members to abstain from over-importing from the mother country.

In principle the pressures to which EPU creditors were exposed were the same as those to which Sterling Area creditors were subjected; (and, for that matter, they are similar to the pressures to which creditors in any regional institution would be exposed.). Additional complications arise within the EPU because creditors (or debtors) might gain (or lose) hard currency directly. It is the problem of the loss of gold as an EPU debtor that dominated the Sterling Area's policy towards the EPU. But, from the experience of other member,¹ should the Sterling Area ever develop a tendency to run large surpluses with the EPU, she will be exposed to the same inflationary pressures as the U.K. itself was exposed within the Sterling Area. To the extent that creditors within the EPU received payment in convertible currencies, these inflationary pressures could be relieved by a policy of increased importing from non-member countries. But a creditor country's balances in the EPU were not held in a form which was really designed to lead to expansionist domestic policies and an increase in imports from all sources. The experience of the National Bank of Belgium, which treated its liabilities to extend credit to EPU as a mortgage on its gold reserves, offers perhaps an extreme example of the limitations of the EPU adjustment mechanism; none the less it

indicates clearly the likelihood that an expansionist domestic policy on the part of a regional creditor may, within the present framework of the EPU, have to be accompanied by an intensification of discriminatory restrictions against outsiders. At the very least, the EPU mechanism slowed up the speed with which a regional creditor could take corrective action: it was only if creditors had been allowed to earn substantial quantities of gold from EPU debtors over a long period of time—which was, of course, contrary to the philosophy of the EPU of a concerted advance toward, say, currency convertibility—that creditors might feel justified in taking action designed to increase imports from all sources. The timing of the recent dollar liberalisation measures of Western Germany seems to illustrate clearly this type of delay.

The Sterling Area was not seriously faced with the problem of inflationary pressures emanating from Western Europe, except perhaps for a short time in the first year of the Union's operation. On the contrary, its chief concern was the potential loss of gold to the EPU. This, taken in conjunction with the criticism advanced earlier that the EPU mechanism did not put sufficient pressures on, and did not offer appropriate incentives to, regional debtors to take corrective action, shows just how difficult it was for a regional institution to function without setting into motion unwelcome balance of payments repercussions. In the case of the U.K., however, the principle of fractional gold payments worked rather better as an incentive to action designed to reduce indebtedness to the Union than was the case with most other members, and for two reasons. The U.K. drew almost half of her imports from sources (i.e. the Overseas Sterling Area) which required no hard currency payments at all. Other members, on the other hand, drew a very large proportion of their imports from the EPU area and the Dollar
Area. The U.K. had, therefore, a much greater incentive (and scope) to reduce imports from the EPU area when the occasion demanded; for EPU imports had a relatively high dollars content. It is significant that one of the first countries to suspend liberalisation measures before all possible alternatives had been exhausted was the U.K. in 1951.

In the second place, the Sterling Area was not either a consistently large debtor or creditor within the EPU. It is senseless to ask a country, which is a structural debtor or creditor within the region, but in overall payments equilibrium, to take steps to reduce her deficit or surplus with the EPU. For such members, fractional gold payments are entirely inappropriate. But if a country is neither a structural debtor nor creditor, then it is likely that, when her regional balance of payments with the Union is worsening, at the same time her balance of payments with the outside world will also be worsening. In such a case, fractional gold payments to the Union are an appropriate incentive for the country in question to take steps to arrest the deterioration in her balance of payments position.

However, in reference to the U.K., the relevance of this second point must be qualified by saying that on balance the Sterling Area may exhibit a tendency to be persistently in deficit within the EPU. In that case, the principle of gold payments is obviously contrary to the policy of the Sterling Area, which aims at building up its hard currency reserves. The evidence which prompts this statement is the rather extraordinary nature of some of the transactions which affected the size of U.K. gold payments to the EPU. Table 55 on the following page analyses the position.

The total loss of gold in transactions with OEEC countries was considerably larger than the gold payments actually made in EPU settlements. This was mainly the result of two types of transaction which
### Table 55.

**Gold Losses to, or Gains from OEEC on Total Sterling Area Account.**

(Million Pounds.)

<table>
<thead>
<tr>
<th></th>
<th>1951</th>
<th>1952</th>
<th>1953</th>
<th>1954</th>
<th>1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. U.K. current account balance</td>
<td>-197</td>
<td>-31</td>
<td>+86</td>
<td>+39</td>
<td>-83</td>
</tr>
<tr>
<td>2. U.K. capital account (net)</td>
<td>-63</td>
<td>-25</td>
<td>-47</td>
<td>-7</td>
<td>-25</td>
</tr>
<tr>
<td>3. Total RSA balance</td>
<td>+38</td>
<td>+28</td>
<td>+39</td>
<td>+29</td>
<td>+33</td>
</tr>
<tr>
<td>4. Net sterling transfers etc to (-) OEEC countries from other countries</td>
<td>-113</td>
<td>-86</td>
<td>-57</td>
<td>-66</td>
<td>-96</td>
</tr>
<tr>
<td>5. Net payments by (-) or to (+) OEEC countries in gold and dollars (excluding official settlements) and receipts (+) for dollar goods</td>
<td>-2</td>
<td>+74</td>
<td>+28</td>
<td>+58</td>
<td>+134</td>
</tr>
<tr>
<td>6. Adjustments for features peculiar to EPU</td>
<td>-1</td>
<td>-29</td>
<td>-19</td>
<td>+6</td>
<td>-45</td>
</tr>
<tr>
<td>7. Sterling Area surplus or deficit in EPU settled in part by a</td>
<td>-338</td>
<td>-69</td>
<td>+30</td>
<td>+59</td>
<td>-82</td>
</tr>
<tr>
<td>8. Payments (+) or receipts (-) of gold through EPU mechanism</td>
<td>+39</td>
<td>+99</td>
<td>-41</td>
<td>+8b</td>
<td>+69b</td>
</tr>
<tr>
<td>Total loss (+) or gain (-) of gold in transactions with OEEC countries (Items 5, 8)</td>
<td>+38</td>
<td>+173</td>
<td>-13</td>
<td>+65</td>
<td>+203</td>
</tr>
</tbody>
</table>

---

*a*—The different proportion settled in gold reflects changes in the gold-credit basis for EPU settlements and, down to June 1954, the extent to which the U.K. had utilised her quota.

*b*—Including bilateral gold settlements to EPU creditors.

**Sources:** Cmd 9430, Tables 9, 10 and 11; Cmd 9731, Table 11, 12 and 13.

are included in item 5 of Table 55. (The White Paper unfortunately does not distinguish between them.) First, there was loss of dollars through the operation of dollar commodity arbitrage schemes; they involved the importation into the U.K. of dollar goods and their subsequent re-export to the EPU countries. This strengthened the position of the Sterling Area within the EPU, but at the same time resulted in a direct drain on the Dollar Pool of the Area. Secondly, on
several occasions the Exchange Equalisation Account sold dollars to Europe in order to strengthen the market for transferable account sterling; this generally had the same effect as the previous type of transaction. The U.K. statistics thus treat the sale of gold or dollars to Europe in the same way as the export of an ordinary commodity. These transactions are of an exceptional nature; in their absence the Sterling Area deficit in the EPU would have been considerably larger. However, it should also be taken into account that sterling’s position in the EPU was weakened indirectly through the transfer of sterling by third countries to the EPU members. (Item 4) But this is likely to prove a more permanent feature of the situation than, say, the re-export of dollar commodities from the U.K.

The Non-Discriminatory versus the Regional Approach to Payments Problems

The conflict between the regional (i.e. discriminatory) and the global (i.e. non-discriminatory) approaches to the world’s payments problems, with which many economists in the immediate post-war years were preoccupied, should not be considered in isolation, but against the background of the principal international economic problem of the post-war period. This problem is the persistent balance of

1 It should be mentioned that on several occasions the same transaction in the reverse direction was quite important. A number of EPU debtor countries attempted to minimise further deficits by making purchases of transferable sterling. The purchase of transferable sterling costs dollars or gold which would have to be bought in any case, but the price is reduced by the discount at which transferable sterling can be obtained. This type of transaction was probably prominent in early 1956. See Economist, March 10th, 1956.

2 In recent years, with the increased de facto convertibility of sterling, this type of transfer assumed great importance. A deficit incurred by the U.K. in the EPU is now almost identical with the Sterling Area’s total deficit with the non-dollar world.
payments surplus of the United States. In this thesis, it has been attributed in part to a structural factor; namely the faster long-term rate of increase in productivity in the U.S. than in the U.K. and other Western European countries.

In these circumstances, it was suggested that the adoption of the regional approach did not represent the better of the two available choices. The mechanism with which Britain and Western Europe tried to attack the dollar shortage was not the one most suitable for the problem it was designed to solve. In Chapter 7 it was clearly indicated that the regional approach to the payments problems was really designed to overcome the obstacles to trade expansion created by the existence of large structural creditors; or, in other words, the EPU and the rejuvenated post-war Sterling Area were brought into being by the very large dollar gap. The rather heretical conclusion which this argument must imply if it is not to end in a vicious circle is realised very clearly. It implies that for the sake of what is believed to be a more effective attack on the dollar problem (i.e. a non-discriminatory one) than the regional approach, some of the expansion which has taken place in intra-European and intra-Sterling Area trade ought to have been forsaken.

It is believed that the global approach can solve the dollar problem more speedily than the regional one. At the same time, it is recognised that dogmatism is quite out of place in the case of such an enormously complex problem. In any case, the question must ultimately be decided on welfare criteria, on which opinions inevitably differ. Who, for instance, is to compare the present loss of welfare due to loss of trade in the event of the abandonment of discrimination against the Dollar Area and the increase in welfare at some future date with which a more intimate contact with the dollar is likely to
be accompanied?

But, from the balance of payments point of view, there should be little doubt that the regional approach in general, and the EPU and the Sterling Area in particular, are not suitable for tackling a problem which calls for structural adjustments. The mechanism through which the creation of regional trade and payments institutions tends to aggravate the dollar problem has been described in detail with reference to the U.K. Broadly, two effects are present, and will to some extent be present no matter how individual features of the Sterling Area and the EPU are modified. In the first place, the regional approach diminishes the urgency and diverts attention from the changes which are essential if balance of payments equilibrium with the Dollar Area is to be achieved. Secondly, even where the goal of the solution of the dollar problem is kept firmly in mind, the pressures that the expansion of intermember trade—which is the objective of the regional institution—exercise on the economies of participating countries make the necessary adjustments more difficult.

These considerations hold true only on the underlying assumption that regionalism is regarded as a stage towards the establishment of a multilateral system of payments and of free trade on a world-wide basis; that is, on the assumption that Western Europe and the Sterling Area do not wish to cut themselves off from the dynamism of the American economy. If, on the other hand, they consider that the way out of their difficulties lies along the path of self-sufficiency, then the regional approach is not only the best, but indeed the only one.
CONCLUSION.

In the post-war years, the balance of payments difficulties of U.K. generally took the form of a dollar gap. This problem was not new, but was accentuated by the loss of invisible income and by the war-time destruction of productive resources in the U.K. and other European countries. Thus the dollar shortage was a phenomenon common to many countries, and Britain's balance of payments deficits with almost all non-sterling countries had to be settled, in part at least, by payment in dollars or other hard currencies.

The immediate causes of the periodic balance of payments difficulties which faced the U.K. during the post-war period were usually associated with fluctuations in the stocks of imported commodities. The payments difficulties diminished in intensity over the period, and between 1952 and 1955 they were not of more than marginal character. In comparison with the turnover of British and Sterling Area trade, year to year fluctuations in the balance of payments were seldom very large. These fluctuations, however, tended to be magnified because of the low level of the gold and dollar reserves of the U.K. The inability of the U.K. to build up her reserves to a more satisfactory level ten years after the end of the war reflected the true nature of the British payments problem and suggested that the causes of the dollar unbalance were more deep-seated and less transitory than either fluctuations in stocks or the loss of income on the services balance of the U.K.

The greater part of this thesis was taken up with an attempt to consider the probable effects of some of these more permanent factors on the British balance of payments. Over the first half of the twentieth century, taken as a whole, the rate of increase of productivity was faster in the U.S. than in the U.K. or almost any other country. The question was therefore investigated whether the post-war
payments difficulties were a phase of a much older problem, and whether these difficulties were due in part to differential rates of productivity growth in the two countries.

Over such a long period of time, it is not possible to show directly how this factor affected the British balance of payments; the effects of productivity on a country's balance of payments cannot be isolated from the effects of other factors. But an examination of the mechanism through which differential rates of productivity growth are likely to affect the balance of payments suggested that the external position of countries with an economy competitive with that of the U.S. is likely to deteriorate. For in their case, the price substitution effect associated with a rapid rate of productivity growth in the U.S. is likely to be more important than the real income effect which tends to improve their balance of payments. Moreover, when, as is likely, increases in productivity in the U.S. tend to be concentrated in industries which export a large proportion of their output, the real income effect itself partially operates to improve the balance of payments of the U.S. viv-a-vis the rest of the world; for the rest of the world is, as a result of its improved terms of trade with the U.S., better off then before.

The balance of payments effects of a rapid rate of increase of productivity should not be viewed as consisting of price-substitution and income effects, and these effects alone. Account should be taken of the rate of innovation; the production and export of new goods can be regarded as an instance in which the increase in productivity approaches infinity. There is also the enormous prestige of U.S. products, and the tendency of other countries to emulate the American way of life. This may lead countries outside the U.S. to pursue a standard of living which their productive resources cannot support;
it is also likely to result in increased demand for goods which U.S. industries produce more efficiently.

During the later post-war period (i.e. 1952-4) the U.K. approached external equilibrium; though the balance of payments position of the U.K. was very far from being completely satisfactory, in many ways it was probably more so than at any time since the First World War. One is inclined to suggest that this improvement was in some measure due to the fact that during the post-war period itself, the rate of increase of productivity in the U.K. was not appreciably slower than that of the U.S. The importance of this, however, should not be overestimated because the rate of increase of productivity during the post-war period cannot be regarded in isolation from the rate of increase over longer periods of time, including the increase between 1938 and the post-war period.

Two other factors tended to make the solution of the British dollar problem more difficult. In the first place, the institutional mechanism through which the U.K. and Western Europe attempted to deal with the situation created by the dollar problem had some adverse affects on their balance of payments with the Dollar Area. In general, regional institutions of trade and payments, like the EPU and the Sterling Area, which aim primarily at the expansion of intermember trade, reduce the incentive to export to hard currency areas. Within the Sterling Area, one of the main adverse effects on the British balance of payments was the tendency of the independent members of the Sterling Area to overimport from the U.K. Within the EPU, the most serious difficulty which faced the U.K. was the loss of gold and dollars to the Union; for in Intra-European trade the U.K. is probably a structural debtor.
Secondly, the foreign economic policy of the U.S. tended on the whole to accentuate the American propensity to be a structural payments creditor. The tariff policy in particular had fairly important restrictive effects on U.S. imports. On the other hand, the U.S. contributed large amounts of dollars through public, and to a lesser extent, private investment. A comparison of outflow of long-term private capital from the U.S. to the U.K., and the inflow into the U.S. of interest and dividends, indicated that foreign investment did not reduce the degree of unbalance in the payments of Britain vis-a-vis the U.S. But from a broader point of view, the contribution of American private foreign investment to strengthening the economy of the U.K., and indirectly to the solution of the dollar problem was probably substantial.

What, if any, are the broad policy implications of this diagnosis of the British balance of payments problem? The usual view is that a structural explanation of external difficulties goes hand in hand with low price elasticities in international trade. The analysis presented in this thesis suggests that, if the structural interpretation is made in terms of differential rates of productivity growth, the reverse is true. The chief effect which works in favour of the balance of payments of the country with the most rapid rate of increase of productivity, i.e. the U.S., is the relative reduction in her prices of export and import competing goods. If price elasticities were low, this effect would not improve the balance of payments of the U.S. to any marked extent; it would probably be offset by the increase in U.S. imports which results from a rise in real income. High price elasticities are also fundamental to the argument which attributes the dollar difficulties of Britain and many other countries to the effects of the American tariff.
Thus, from an analysis of the causes of the weakness of the British balance of payments position, one emerges with a qualified faith that methods designed to maintain or achieve external equilibrium through the price mechanism are likely to work. This conclusion, of course, assumes that domestic monetary and fiscal policies are such as to allow the price mechanisms to operate effectively in the external sphere. On these grounds a case can therefore be made for an international economic system relying on variable exchange rates or currency revaluation as the main modes of adjustment.

As a corollary, strong support must be given to any attempt to strengthen the existing international economic institutions. If a change in the foreign exchange value of a currency is to work as an effective means of adjustment, it must be operated in an appropriate economic climate. This environment does not only presuppose the absence of the most severe quantitative restrictions on imports, but also that countries observe a certain code of behaviour. The code of behaviour one has in mind is reflected fairly faithfully in the Articles of Agreement of the IMF. In particular, the IMF provision that a fundamental disequilibrium in the balance of payments should be corrected by devaluation seems to be well in accord with the nature of the balance of payments problems which faced Britain and many other countries during the post-war period.

However, the faith in the efficacy of the price mechanism should be qualified. The rigidity of domestic price structures, together with a wage-setting process based on changes in the cost of living, suggest that devaluation is likely to offer only a short breathing space. The devaluations of 1949 did nothing to modify this conclusions. As some of the causes of disequilibrium are likely to be persistent, resort will have to be made to devaluation at frequent intervals. In
spite of all international agreements defining the code of conduct to be observed, in particular circumstances, successive acts of devaluation will tend to yield diminishing results in the form of an improvement in the balance of payments.

Thus the breathing space afforded by the price adjustment methods should be used for a more permanent solution. If one of the causes of disequilibrium is the low rate of productivity growth in the U.K., then the logical solution will be to attempt to achieve a higher rate of increase in productivity. In industrial countries the rate of increase of productivity is largely determined by the rate of productive investment. But the chief investment products, namely metal and engineering goods, constitute about 50% of British exports. More important, it is in this sphere that the U.K. has the best chance of expanding her exports. There is clearly the possibility of conflict between the need for more exports and the need for a higher rate of productive investment. Thus requirements of short term equilibrium may not always be compatible with those of long term balance in a country's international accounts. The conflict may already be present: all the post-war balance of payments crises of the U.K. resulted in government action which aimed at cutting down the rate of domestic investment.

The most attractive way of resolving this conflict appears to be through the export of long-term capital from the U.S. The U.S. has the ability to export capital on a large scale; this cannot be questioned. In fact the post-war international payments system was made unworkable by the vast loans or gifts which the U.S. government

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made to the rest of the world. What is required is that this export of capital should take the form of productive investment. Policies designed to bring about an increase in U.S. private foreign investment deserve more attention than they generally receive.

As was pointed out in this thesis, with existing opportunities for investment within the U.S., the obstacles to a large increase in the outflow of private capital from the U.S. are likely to be great and may prove to be insurmountable. If, therefore, this objective is to be achieved, it may be necessary to create a new government institution for this purpose or to expand the functions of the American Import-Export Bank and, as has already been done to some extent, those of the International Bank for Reconstruction and Development. Even a modest increase in the outflow of private investment from the U.S. would, however, make a substantial contribution towards strengthening the economies of Britain and other countries. This at least is the lesson of the post-war period.

The ideal form which the outflow of long-term capital from the U.S. could take is that of direct investment. Foreign investment is, of course, inflationary in the sense that it generates incomes without a corresponding supply of currently available goods; but unlike domestic investment, it usually provides the foreign exchange necessary for the increased demand for imports which it creates. In addition, direct foreign investment by the U.S. is likely to provide Britain and the rest of the world with the means of direct contact with the superior productive techniques of American industry.
APPENDIX A: PRICE ELASTICITIES FOR BRITISH EXPORTS.

The Case For and Against Calculated Elasticities.

The responsiveness of the volume of foreign trade to price changes is a fundamental question in international economics. Some knowledge of the price elasticity of demand for a country's imports and exports is indispensable to the formulation of that country's economic policy, and, in particular, to the choice between methods which rely on the price mechanism and those which rely on direct controls for restoring or maintaining external equilibrium.

The question of the influence of price changes is then obviously relevant to policy making; in retrospect it is also relevant to a discussion of causes of payments unbalance, and, therefore, to some of the problems which are raised in this thesis. If price changes have no effect on the volume of trade, all measures which depend on the price mechanism for their effectiveness go by the board. In such circumstances, it is not possible to argue that the unbalance of international payments is caused by, for example, United States tariff policy. The rate of productivity growth becomes a less potent factor, since, in part, it relies on lowering or raising prices for its effects on the balance of payments.

Until fairly recently nobody ever dreamed of measuring price elasticities with any degree of accuracy. This was partly because exchange depreciation was not considered as an alternative policy; but mainly because it was generally taken for granted that the demand for a country's exports was almost always elastic. It might well be that the demand for certain commodities was inelastic, but it is extremely unlikely that the demand for the whole range of a country's exports would fall short of unity.
Even in the changed conditions of the post-war years, there is a tendency to assume that price elasticities exceed the critical value of unity.¹ Post-war international monetary reconstruction was based on the assumption that price did influence the flow of goods between nations. One of the chief features of the International monetary Fund is the provision that a country may be allowed to correct a "fundamental disequilibrium" by a change in its exchange rate.²

There are good a priori reasons why one would expect price elasticities to be substantial. In the first place, the price elasticity of demand contains a real income effect. If the real terms of international trade turn in favour of country A, this in itself will make buyers in A better off than before.³ And, unless B's exports to A are inferior⁴ goods, the income effect is likely to be positive. In the second place, substitution between A's and B's products can take place in consumption or in production and in country A or in country B.⁵ Thirdly, it is generally accepted that buyers are influenced in their ordinary business by considerations of price. Substitutability between two domestic goods may well be considerably higher than that between two similar goods, one of which is produced abroad. But there is no reason why domestic goods should be completely immune to

² Articles of Agreement, Article IV, Section 5.
³ Meade, op.cit., p.75.
⁴ This term refers to those goods on which less is spent as real income increases.
⁵ ibid. pp.75-76.
the effects of foreign price competition.

What if calculated elasticities conflict with the results expected on a priori grounds? One course is to question the validity of the methods used in calculating the elasticities. Different methods of estimating elasticities are subject to different types of limitations. These technical shortcomings have been authoritatively reviewed by writers best qualified to do so.\textsuperscript{1} But there are some general objections. It is claimed that calculated elasticities are either irrelevant or at any rate underestimate the true elasticities. The usual criticisms advanced are:

1) To derive true price elasticities of demand from historical price and quantity data it is necessary to adjust the data for secular trends and cyclical shifts in the demand function.\textsuperscript{2} This has hardly ever been done.

2) There has been a failure to allow for the time lag between price quotations and the delivery of goods.

3) Statistical calculations were always based on market statistics, which, even when completely reliable, can only give short period elasticities, whereas the figure relevant here is essentially the long period figure.\textsuperscript{3}

4) All such calculations assumed a fixed range of export goods, whereas one of the most important features of the situation is the probability of a change in the composition of exports with a change in relative prices.\textsuperscript{4} There is also the possibility that, as a result of lowering the prices of a country's exports, some new goods may enter into trade for the first time.


\textsuperscript{2} J.Viner, International Trade and Economic Development, ch.2.

\textsuperscript{3} L.Robbins, The Economist in the 20th Century, page 151.

\textsuperscript{4} L.Robbins, op.cit., p.151.
Thus armed, one authority concludes, "the statistical enquiries on which so much is made to depend seem to me to be almost entirely worthless. I say nothing against their deficiencies of technique which apparently are not inconsiderable. But at the risk of being regarded for the rest of my life as a philistine by the whole tribe of econometricians, I venture to point out that from an economic point of view they are largely irrelevant....In the main, given reasonable elbow room in commercial relations I see no reason to believe that the normal expectations of devaluation would be frustrated. We must, of course, assume reasonably free trade relations--under present circumstances, devaluation is still quite likely to work."¹

What weight can, then, be attributed to these objections to calculated elasticities? There is a fundamental difficulty in accepting these objections in their entirety. Once it is admitted, as it must be, that the magnitude of price elasticities of demand is something which can only be determined by empirical investigation, the evidence of econometricians cannot be altogether ignored. If one objects to the methods used for measuring elasticities, he should try to suggest alternative ways. On the whole, however, the economists who believe that the volume of exports is sensitive to price variations seem to counteract the statistical results obtained by general qualitative and a priori reasons as to why elasticities should be high. This, however, is not legitimate since it has already been admitted that elasticities can only be finally determined by empirical study. Statistical investigations must be

¹ L.Robbins, op.cit., p.151.
accepted as providing a guide, however imperfect, as to the magnitude of true elasticities. Fortunately, by no means all the results obtained by empirical investigation conflict with a priori expectations as to their probable magnitude.

A considerable amount of statistical work has been done on the measurement of price elasticities in international trade, especially for the inter-war period. The results need not be discussed here, but one disquietening tendency cannot escape comment. Most of the workers in this field are fully aware of the limitations of their calculations and of the fact that their mathematical presentation gives an impression of a degree of precision that does not exist. For instance, G.D.A. McDougall states that "practical judgements about, for example, the effects of exchange variations or the degree of difficulty involved in restoring international equilibrium do not depend upon a knowledge of whether elasticities of substitution are, say, -2.3 or -2.7, but they do require a knowledge of whether they are of the order of -0.03 or +0.3 or -3 or -30." These are indeed sensible words with which no one can quarrel. But have calculations for the same elasticities made by different economists yielded results which are sufficiently close to each other to give us a knowledge of the order which McDougall considers useful to the formulation of economic policy? To quote from the same author again, "we may perhaps hazard a guess that the total elasticity might be of an order approaching -3. This is about ten times as high as the figure of -0.3 obtained by Mr Chang for the pre-war

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elasticity of substitution between British and American exports of manufactures.  

It would seem, therefore, that the choice is not between having an estimate of elasticity, however imperfect, and having no estimate at all; it is rather a question of deciding which of the many calculated elasticities is the nearest to the true elasticity. However, the fact remains that for statistical reasons Chang's calculations of elasticity are biassed downwards and McDougall's are biassed upwards: our awareness of these biasses may help us in attempting to reach an estimate of the true elasticities. The precarious nature of the calculations cannot be overstressed. Calculated elasticities should be used with caution, and the more so when they appear to contradict what should be expected from general considerations.

When calculated elasticities are used in the formulation of economic policy in periods other than those to which they relate, they are subject to additional qualifications. Calculated elasticities can only be used to make reliable predictions if the underlying conditions have not materially changed. This is a facade of the problem of using the results of static analysis under the dynamic conditions of the real world.

For instance, if, during the period in question, relative export prices had changed more or less than they actually did change, it does not follow that volume changes would have altered in the exact proportion suggested by the calculated elasticities. To

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put the same thing in another way, price elasticities remain constant only within the range of actual observations; beyond this they may be expected to change. On the whole, one would expect that as changes in relative prices become larger the volume of exports would tend to increase more than proportionately, i.e. if 1% change in price is associated with 2% change in volume, then 2% change in price is likely to be associated not with a 4% change in volume, but with, say, 5% change in volume, since many buyers may not consider it worthwhile to shift from one source to another if the change in relative price is small. The universality of this has, however, been questioned.\textsuperscript{1}

In the formulation of policy there is also the very relevant question of how the reduction in export prices is brought about. The reactions of competitors of a given country would vary with the method used in bringing about the change in relative prices. The difference in the psychological impact of, for example, exchange depreciation and a rise in productivity, is likely to be enormous. Competing countries are much more likely to retaliate in the former case than in that of the latter. Considerations of this kind limit the usefulness of calculated price elasticities as aids to the formulation of economic policy.

\textbf{British Export Prices During the Post-War Period.}

Before reviewing some estimates of elasticities, it is helpful to compare, in general terms, changes in the unit value and volume of British exports since 1938. The connection between price and volume changes could be expected to become more pronounced

\textsuperscript{1} De Vries, \textit{Price Elasticities of Demand for Individual Commodities Imported into the U.S.}, IMF Staff Papers, Vol.1, p.412. He finds that this depends on the type of commodity, and for most commodities this does not hold.
throughout the post-war period. For between 1946 and, for example, 1954, considerable improvements took place on the side of the supply of goods. What is more important, during the period, there was a progressive, though not uninterrupted, relaxation of exchange and trade control and other artificial barriers to international trade. In a buyer’s market, price considerations came into their own. With the reappearance in the world’s markets of Britain’s old trade rivals, a new element of competition was introduced into foreign trade. Whichever year is used as marking the turning point for these tendencies, the choice is bound to be to some extent arbitrary. 1950 probably offers a landmark less arbitrary than any other year; for, in addition to the fact that there was an acceleration in the process of dismantling controls, the devaluations of 1949 offered, so-to-speak, most countries a chance to make a new start.

The post-war increase in the price level of British exports, measured on a 1938 basis, is less than that in the export price levels of her competitors. Changes in the Unit Value Index of a number of countries, expressed in dollars, are set out in Appendix Table A. Between 1938 and 1948 both British and American export price levels doubled; by 1953 the British price level was somewhat lower than in in 1938, whereas the American had increased slightly. Between 1938 and 1953 the unit value of British exports, expressed in dollars, increased less than that of any other country shown in Appendix Table A.

Changes in the volume of exports were inversely correlated with changes in unit value. Index numbers of the volume of exports, on a 1938 basis, are set out in the second part of Table A.
Appendix Table A.

Unit Value Index of Export Prices Expressed In Dollars.
(1938=100.)

<table>
<thead>
<tr>
<th>Country</th>
<th>1948</th>
<th>1950</th>
<th>1951</th>
<th>1952</th>
<th>1953</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Switzerland</td>
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<td>238</td>
<td>262</td>
<td>262</td>
<td>257</td>
</tr>
</tbody>
</table>


Index of the Volume of Exports.
(1938=100)

<table>
<thead>
<tr>
<th>Country</th>
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<th>1950</th>
<th>1951</th>
<th>1952</th>
<th>1953</th>
</tr>
</thead>
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<td>France</td>
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<td>121</td>
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<tr>
<td>Switzerland</td>
<td>125</td>
<td>141</td>
<td>170</td>
<td>169</td>
<td>189</td>
</tr>
</tbody>
</table>


When 1948 figures are compared with those for 1938, the U.S. alone of the countries listed expanded the volume of her exports more than that of the U.K. The figure for the U.S. is rather misleading in that
it includes many goods given free under various assistance schemes. U.S. exports doubled while British exports expanded by 40%. Apart from Switzerland, none of the other countries shown expanded her exports above their pre-war level.

To gain a slightly more precise understanding of the influence of price considerations, unit value indices of exports, expressed in dollars, have been plotted against volume indices on a double logarithmic scale. (Graph 2.) There is a fairly strong negative correlation, and the price elasticity of substitution between the exports of the countries shown is well over -1.1 Countries which in general experienced the smallest increase in export prices between 1938 and 1948 tended to expand their exports to a greater extent.

Graph 2 reveals another significant fact. In 1948, the U.S. enjoyed an advantage over Britain in the imperfect world market; for, whereas her export price level rose as much as the British, the volume of her exports expanded more than that of the U.K. This conclusion is in agreement with the results obtained by other economists, and in marked contrast to previous experience. G.D.A. MacDougall has found that for the years 1934-38 taken as a whole the recorded U.S. price was, on the average, 93% of the British; but the U.S., instead of exporting more than the U.K. as might have been expected, exported on average only 69%. In 1948, on the other hand, the U.S. tended on the average to export 1.37 times as much as the U.K. whenever British and American prices were equal. 2

1 Professor A.J. Brown using the same method as in the text but with 1937 as base and for a slightly different group of countries, has obtained for 1948 a significant correlation between the price and volume of exports and an elasticity of substitution of -1.69. See Brown, The Great Inflation, p.267 et seq.

UNIT VALUE OF EXPORTS IN U.S.A. DOLLARS AND INDICES OF EXPORT VOLUME IN SELECTED COUNTRIES IN 1948. (1938 = 100.) DOUBLE LOGARITHMIC SCALE.

UNITED KINGDOM

SWITZERLAND

SWEDEN

BELGIUM

ITALY

FRANCE
Since 1950, however, the picture has changed considerably. Appendix Table B sets out volume and unit value indexes for exports of a number of countries. Between 1950 and 1954, the volume of U.K. exports expanded by 4%. This increase was smaller than that of any other country shown in Appendix Table B.

Many influences were responsible for the slowing down of the rate of expansion of U.K. exports since 1950. In particular, the U.K. was at a disadvantage in comparison with those countries, notably Germany, which were slow in expanding their exports to the pre-war level. But examination of Appendix Table B suggests that the price factor was also of some importance. Britain and Sweden, the two countries which, between 1950 and 1954, experienced the greatest increase in export prices, expanded the volume of their exports least. On the other extreme, Germany, Belgium and Switzerland with the smallest price increases enjoyed the largest expansion in the volume of exports. There are, therefore, signs of strong negative correlation between relative prices and relative volumes of exports.

Approximately similar results are obtained when exports of manufactured products rather than total exports are considered. Graph 3 and Appendix Table C compare changes in unit value and volume of exports of manufactured goods between 1950 and 1953. The U.S. and Switzerland with modest increases in export prices fared best. On the other hand, Sweden and the U.K. actually experienced a decline in the volume of their exports. The Swedish unit value index rose fastest during the period; the British index rose also, but not so quickly. Italy and Germany provide exceptions to the normal pattern probably because they had fallen behind other countries in expanding their exports in the period prior to 1950.
### Appendix Table B.

#### Index of Volume of Exports.  
(1950=100.)

<table>
<thead>
<tr>
<th>Country</th>
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<th>1952</th>
<th>1953</th>
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</tr>
</thead>
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<td>U.S.A.</td>
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<td>Switzerland</td>
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<tr>
<td>Germany</td>
<td>143</td>
<td>154</td>
<td>180</td>
<td>223</td>
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#### Unit Value Index of Export Prices Expressed in Dollars.  
(1950=100)

<table>
<thead>
<tr>
<th>Country</th>
<th>1951</th>
<th>1952</th>
<th>1953</th>
<th>1954</th>
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<tr>
<td>U.K.</td>
<td>117</td>
<td>123</td>
<td>119</td>
<td>119</td>
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<tr>
<td>U.S.A.</td>
<td>114</td>
<td>114</td>
<td>113</td>
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<td>Belgium</td>
<td>133</td>
<td>133</td>
<td>112</td>
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<td>France</td>
<td>115</td>
<td>126</td>
<td>118</td>
<td>112</td>
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<td>Italy</td>
<td>124</td>
<td>115</td>
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<tr>
<td>Sweden</td>
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<td>107</td>
<td>107</td>
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<tr>
<td>Germany</td>
<td>122</td>
<td>131</td>
<td>123</td>
<td>118</td>
</tr>
</tbody>
</table>

**Source:** I.M.F. International Financial Statistics.
Graph 3.

Logarithms of indices of unit price (in U.S. dollars) and volume of exports of manufactured goods from selected countries in 1953. (1950 = 100.)
Appendix Table C.

Volume Index and Dollar Unit Value Index of Exports of Manufactured Goods From Selected Countries in 1953.
(1950=100)

<table>
<thead>
<tr>
<th>Country</th>
<th>Volume Index</th>
<th>Dollar Unit Value Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.K. a</td>
<td>94</td>
<td>121</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>158</td>
<td>114</td>
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<td>Belgium</td>
<td>118</td>
<td>111</td>
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<tr>
<td>France</td>
<td>106</td>
<td>124</td>
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<tr>
<td>Italy</td>
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<td>Sweden</td>
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<td>Switzerland</td>
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<td>107</td>
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<tr>
<td>Germany</td>
<td>207</td>
<td>124</td>
</tr>
</tbody>
</table>

a—Index not entirely comparable with that for 1950.


Some Estimates of Price Elasticities for British Exports.

Most published work on price elasticities in international trade has been confined to the side of demand. Three particular elasticities are most relevant to problems raised in this thesis: first, price elasticity of substitution between British and American exports in third markets; second, price elasticity of demand for British exports to the U.S.; and lastly, price elasticity of demand for all U.K. exports or price elasticity of substitution between the entire exports of the U.K. and those of the rest of the world.

There is no estimate of price elasticity of substitution between British and American exports based on post-war data. Elasticities calculated from single figures are not very reliable; however, the elasticities suggested by the figures in Appendix Table C may be used
as very rough guides. These figures suggest an elasticity of substitution of over -5 between British and American exports of manufactures¹ and an elasticity of substitution of slightly less than -3 between British and Swiss exports of manufactures.² This would imply that, assuming that the market for British and American exports of manufactures taken together remain constant, 1% fall in British export prices relatively to the American export prices would lead to a 5% increase in the quantity of British exports relatively to American exports; and similarly in the case of the price elasticity between British and Swiss exports of manufactures. These elasticities of substitution are very rough indicators of the extent to which British exports will, by means of price reductions, displace American and Swiss manufactures in world markets.

For the inter-war period, there are at least two independent estimates of price elasticity of substitution between British and American exports of manufactured goods. Chang’s estimate³ of -0.3 is calculated by the familiar technique of correlating time series. This figure is surprisingly low. It is unacceptable on purely technical grounds. The quantity and price indexes used in this calculation were obtained from the League of Nation’s Review of World Trade. The composition of each group of exports differs substantially from country to country; absence of homogeneity in the data affects adversely the magnitude of elasticities. Moreover, in this period, world income, measured by the index of production, was highly correlated both with the ratio of American to

¹ i.e. between 1950 and 1953 the American volume of exports relatively to the British rose by 66%, and the American relative price index fell by 6%. Therefore the elasticity of substitution is given by \( \log 1.66/\log 0.94 = 0.2201/0.0368 = 5.7 \).
² For Swiss: \( \log 1.41/\log 0.68 = 0.1492/0.0555 = 2.7 \).
³ Chang, op.cit., p.112.
British export prices and with the ratio of their export volumes; this makes it impossible to separate the effects of prices and income on the volume of exports.¹

The other estimate of price elasticity of substitution between British and American exports of manufactures in the inter-war period is by G.D.A. MacDougall.² The method used in arriving at an estimate of about -3 is described by the author as the "commodity comparison" approach. It involves comparison of relative prices and volumes of individual exports of manufactures by the U.K. and the U.S. From the point of view of homogeneity of the data, this estimate is more acceptable than Chang's.

Many estimates of price elasticity of demand for United States imports have been made. One or two of these estimates give separate figures for elasticity of U.K. exports to the U.S. The most reliable of these estimates show some groups of American imports to be sensitive to changes in import prices. Of the four estimates mentioned here, only one shows American import demand to be inelastic. Chang's figure, based on inter-war data, for the entire range of U.S. imports is -0.97.³

This estimate conflicts with the results of two other investigators who cover approximately the same period. A.C. Harberger's method of calculation has the merit of allowing for shifts in the demand function. It indicates that price elasticities for U.S. import demand of -2 or even -3 were consistent with the relevant U.S. statistical data for that period. One drawback of this method

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² op. cit. Part II, p. 499.
³ Chang, op. cit., p. 114.
is that results so obtained involve a wide margin of uncertainty. This is the outcome of assuming, not a unique, but a large number of income elasticities. The actual price elasticities were found to lie between -1.3 and -6.3 for all U.S. imports, and between -.9 and -4.8 for imports of manufactured goods. Even the lower limit, however, considerably exceeds the estimate of Chang.

The comprehensive and technically most refined study of U.S. import demand by the Federal Reserve Bank of New York has also confirmed that American imports of manufactured goods at least were sensitive to price changes during the inter-war period. The price elasticity of demand for U.S. imports of finished manufactures from European Recovery Programme countries was -2.4. For finished manufactures from the U.K. it was -5.3, but this figure is less reliable than that for the ERP countries because, in the case of the U.K., changes in industrial production and relative prices were rather highly correlated. For imports from ERP countries, price elasticities of demand for crude and semi-manufactured materials and crude foodstuffs also exceeded unity; for imports from other sources, including the Overseas Sterling Area, these price elasticities were considerably lower.

A post-war study by De Vries has given fairly high price elasticities of demand for U.S. imports from countries which mainly export manufactured goods. R.A. De Vries's method of calculation does

3 ibid, Appendix C.
not rely on correlation techniques: it rather attempts to determine elasticities from the long run changes to be expected from a study of the characteristics of demand and supply in the markets for individual commodities.\(^1\) The U.S. price elasticity of demand for imports from the U.K. was estimated at \(-3.12\) in the event of a reduction, and \(-2.43\) in the event of a rise in the relative prices of British exports to the U.S.\(^2\) These elasticities are long-term ones, and are calculated on the assumption that the dollar unit value of most Western European currencies, including sterling, changes at a uniform rate.

The last group of price elasticities to be mentioned here is that between the whole range of British exports and the exports of the rest of the world. In theory, this elasticity is very important. Prices are most likely to decrease simultaneously for all British exports as a result of exchange depreciation. In practice, however, no meaningful calculation can be made. Any estimate will be biassed downwards. For world exports consist in large measure of primary products which cannot be substituted for British exports.

Estimates by Professor Tinbergen\(^3\) have shown price elasticities of substitution between the total exports of a number of countries and the exports of the rest of the world to be about \(-2\). But these price elasticities include an income effect; it was the result of a larger fall in the price of primary products relatively to the fall in the price of manufactures during the depression years.

Chang's estimate of elasticities of world demand for exports of

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1 De Vries, op.cit., p.397. His work is based on estimates of the probable effect on imports of a 50% increase or reduction in the 1939 American tariff. These estimates have been given in a publication by the Tariff Commission entitled, Post-War Imports and Domestic Production of Major Commodities, Washington 1945.

2 The price elasticity for imports into U.S. from Britain increases to \(-4.80\) for a fall in import prices and to \(-3.55\) for a rise in prices, if whisky, with elasticity 1, is excluded. ibid.p.410.

individual countries indicated a considerably lower sensitivity to price changes. In no instance did the price elasticity exceed unity; in the case of the U.K., it was -0.40. Since the price elasticity of demand for British imports has been found to be much less than -0.60, the implication of Chang's calculations is that in the inter-war years the British balance of payments could have been improved by a rise rather than a fall in her export prices, an appreciation rather than a depreciation of the pound sterling.

The statistical investigations which have been outlined bring to light some general characteristics of American import demand. First, commodities which supply a relatively large share of the U.S. market tend to have a relatively low elasticity of import demand, and vice versa. The corollary of this conclusion is that the smaller the number of countries, the export price level of which has fallen, the higher the elasticity. This has important implications in deciding between alternative methods likely to bring about an equal fall in the export prices of a given country.

Second, there exists a wide difference between price elasticities for different groups of commodities. The broad conclusion of the Federal Reserve study is that responsiveness to price changes is generally confined to imports of finished manufactures into the U.S. Demand for other commodities depends on American real income and industrial production rather than on import prices. This conclusion has been confirmed by De Vries's study. He found that, for all the commodities studied, when a fall in import prices is assumed, price

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1 Chang, op.cit., p.107.
2 T.C. Chang, An International Comparison of Demand for Imports, in Review of Economic Studies, 1945-6, Vol.XIII, p.64. The actual figure is -0.28.
3 On the assumption that the balance of payments was initially in equilibrium.
4 For example, De Vries, op.cit., p. 413.
elasticity was -2.23, but the weighted average price elasticity for 27 raw materials was only -0.80.¹

Third, the assumption that the slope of the demand curve is constant throughout its course is an oversimplification unlikely to hold in practice. De Vries's calculations have the merit of estimating independently price elasticities for both a reduction and an increase in import prices. There is a statistically significant difference in the magnitude of elasticities as between those calculated assuming an increase in import price and those assuming a decrease.² The price elasticity tends to be higher for an increase than for a decrease in import prices. For the raw materials group the difference is enormous: -0.80 for a decrease and -1.67 for an increase.

There is evidence, therefore, of a kinked demand for imports into the United States: the curve is inelastic through part of its course and elastic through the rest. This is as one would have expected from the experience of recent years and from the potential ability of the U.S. to develop her own resources and expand production of synthetic materials. Britain, and more so, the Overseas Sterling Area have a very strong incentive to maintain the status quo with regard to the price of their exports to the U.S. For the kinked demand for imports into the U.S. suggests that, though a fall in American import prices may have few favourable effects on the balance of payments of exporting countries, a rise in import prices may ultimately reduce disastrously the volume of American imports.

¹ De Vries, op.cit., p.410.
² ibid, p.413.
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