Optimum World Monetary Arrangements
and the Dual Currency System

The recent (October 1953) meeting of the members of the International Monetary Fund and various other international banking organizations ended on a rather uncertain note. There was a round of mutually congratulatory speeches on the rapid rise of world trade and intergovernmental cooperation under present monetary arrangements; but some delegates, particularly American ones, expressed concern over constraints placed on American monetary and fiscal policy by balance of payments problems. The United States has been forced into a policy of taxing sales of foreign securities in New York and raising domestic short term interest rates in the face of heavy unemployment. Conversely, the attempts of several European countries to control inflation have been hampered by large capital inflows attracted by high interest rates. Americans, who once exulted over being the world’s banker, are becoming dubious about the viability of a world monetary system dependent on continued (largely uncontrolled) expansion of American dollar liabilities. Thus, the “Group of Ten” members of the International Monetary Fund appointed a study committee to examine world monetary arrangements, particularly liquidity needs. It is my aim here to discuss optimum world monetary arrangements which would seem to be significantly different from present arrangements. The different economic needs and positions of various areas will be distinguished; in particular, the internal problems of Western Europe will be differentiated from the position of Western Europe vis-a-vis the United States.

* The author is deeply indebted to Professor Emilie Deppe for providing ideas and advice that appear throughout the paper. However, he should not be implicated in all the policy conclusions.

The international intelligentsia has been very profuse in the advice offered central bankers and finance ministers. Current ideas can be arbitrarily but usefully given four classifications: (a) increase the liquidity available to the world’s monetary authorities in one of various ways, for example by giving the IMF power to create credit la Keynes, or by raising the price of gold (in everyone’s currency), or getting countries to hold each other’s currencies (the multiple currency standard); (b) the neo-liberal school of thought advocating floating exchange rates (letting the market decide); (c) the status quo school of thought (don’t change the exchange rate until a crisis makes it unavoidable); (d) the deliberate maintenance of a credible fixed exchange rate system by encouraging the integration of financial markets as has developed among the various geographical regions in the U.S.

Alternative (d) is really the last discussed although it is a very important consideration if any system of rigid exchange rates is to become viable. The idea has been discussed by Professors James Ingram and Tibor Scitovsky in various places (1) and does not imply a return to the gold standard as exemplified by textbook discussions of Hume’s Price Specie Flow mechanism. The simple gold standard solution, dependent on multiple expansions and contractions of the internal money supply, is ruled out here as being too “primitive” for serious consideration, given modern preoccupations with full employment. However, a viable system of fixed exchange rates, which is achieved through financial integration as was first fully achieved in the U.S. in the early part of this century may be optimal for other portions of the world as well. This idea is developed further later on.

Strictly speaking, classification (a), the liquidity alternative, is not really a solution to balance of payments problems; it is a way by which a serious day of judgment may be postponed for a long period and perhaps minor exchange rate changes can be avoided altogether, thus lessening the probability of major crises developing. All current changes in world monetary arrangements, e.g. strengthening the IMF, agreements among central banks, can be considered to fall into classification (a) in one way or another.

The most extreme form of increasing world liquidity is via the Keynes-Triffin plan for an international bank with direct power to create credit. Using additional liquidity to provide a buffer stock for maintaining fixed exchange rates assumes that balance of payments fluctuations either are or can be made reversible if the time horizon for adjustment is made sufficiently long. However, there is usually uncertainty as to whether or not any given fluctuation will automatically reverse itself. Thus internal monetary and fiscal policies may still be subordinated, although less strongly, to maintaining balanced international payments even with the provision of additional liquidity. If they are not, then long-standing maladjustments may force an eventual exchange rate change after the deficit country has gone deeply into debt. However an optimist would say that the "key" currency countries would be relieved of their obligation to produce international liquidity through deficits (an inherently unstable process as the British experience of 1931 indicated). The "internationalization" of present foreign official holdings of dollar and pound balances would permit the key currencies to adjust their exchange rates or take other measures more freely to deal with unemployment and their balance of payments problems. Unfortunately, a realist would have to say that the creation of additional international liquidity would make the preservation of the status quo, with its resultant inhibitions on the use of monetary and fiscal policy, a little more bearable and thus a little more likely.

Deep in the heart of most professional economists is a passionate liking for floating (private market determined) exchange rates, i.e., classification (b) above. This idea is ubiquitous in academic circles but it radiates most strongly from the maverick University of Chicago under the influence of Professor Milton Friedman and, more recently, Dr. Egon Söhmen (2). A continuously floating exchange rate would avoid the crises associated with discrete changes (or anticipations of such changes) in the present system of adjustable (quasi-fixed) rates. It would also avoid having governments back into commitments to a fixed rate which can easily become inappropriate. Unfortunately, the liking of many tenured economists for


the free market solutions is exceeded only by the dislike of the free market by bankers and farmers, whether it be in foreign exchange rates, interest rates paid to depositors, or the price of wheat. The lack of communication between the academic and banking communities on questions of floating exchange rates is the most unfortunate of all the misunderstandings in the current debate; and it is much more a problem in communication than one of financial integrity or the sanctity of motherhood.

The world of scholars is largely at fault for this failure in communication. Despite the lengthy time period that the advocacy of floating exchange rates has resided in the academic arena, neither advocates nor opponents have successfully delineated the areas to which the cases for and against floating exchange rates apply. The literature in favor demonstrates conclusively that floating exchange rates are always better, whether applied to Monaco, San Marino, or the U.S. No wonder bankers recoil, and men in charge of development programs in poor countries cringe when told that their burdens will be immeasurably lightened with a free foreign exchange market. By failing to specify the conditions under which a free foreign exchange market is optimal, the neo-liberals have done much to sink their own ship.

Conversely, opponents of free foreign exchange markets have been content to warn of the dangers of "excessive" speculation in the foreign exchange rates of the kind observed in the stock market. What this boils down to is the perhaps legitimate fear that speculative money in trade in real commodities on current account will be unduly sacrificed to capital movements of a fluctuating nature. But again the conditions for this fear to be legitimate in the sense that the economic consequences for differently situated geographical entities are carefully weighed, are lacking. Commonly, historical examples of freely floating exchange rates for the world's major currencies are used to show how unsatisfactory this experience has been. Both the early 1920's and the 1930's (the common examples) were very unsettled times with hyperinflation and depression, and floating exchange rates were tried only after rigid exchange rates had either proved unworkable or had utterly collapsed. It can be easily argued that floating exchange rates worked well given the adverse circumstances under which they operated. An additional example, that of the floating Canadian dollar (the exchange rate floated within about an 8% range from 1952 to 1961, when monetary mismanage-
ment forced an end to the experiment), indicates that fears of excessive speculation may be overemphasized.

To treat money as an ordinary economic commodity whose value is best determined in the marketplace is as extreme as holding the accidental nature of present monetary arrangements sacred. In the first place, non-commodity money cannot be efficiently produced with an uncontrolled private economy. The evolution of central banking has been mainly directed towards eliminating the great instability of private money issues, such as the so-called "natural monopolies", and this is best controlled by some government agency. There are great social benefits to having a stable valued, completely acceptable, money, and these benefits are not likely to be realized without some control of private issues.

Thus the issue and control of the money supply within a geographical region falls into a well-known economic box labelled "natural monopolies", and this is best controlled by some government agency. There are great social benefits to having a stable valued, completely acceptable, money, and these benefits are likely to be realized without some control of private issues. But this brings up two related questions: (1) what is the optimum geographic extent over which we should grant this monopoly power to control a single currency; and (2) what then should be the monetary relationship this area has with other areas with different authorities responsible for control of their monies? The discussion so far by both monetary and international trade theorists has avoided question (1), which has meant that useful discussion of question (2) has been largely vitiated — witness the uncontrolled advocacy of floating exchange rates by some and of fixed exchange rates by others. The political entity known as the nation-state has been implicitly taken as the currency area to which academic arguments uniformly apply. But nation-states come in assorted shapes and sizes and there are even a few signs that our space age mentality will permit us to outgrow these political structures. Thus, elaboration of the basic principles necessary to carve the world into optimal currency areas is useful even if the implementation is only a long-term problem.

The economic dependence of any given geographical area on the outside world is of great importance in determining the optimum nature of its currency system. For economically developed areas, size is roughly inversely related to economic dependence on the rest of the world through foreign trade. Compare the economy of the United States to the combined economies of Belgium and Luxembourg. In 1962, American exports amounted to 4.6% of national income and exports from Belgium-Luxembourg amounted to 4.4%. of their combined incomes. Most goods produced in a large economic area will also be consumed in that same area. The domestic price structure of these goods that do not enter foreign trade will be mainly determined by economic forces within the area in question. A domestic currency will be liquid (i.e. will have the traditionally desirable properties of money: medium of exchange, numeraire, etc.) if it maintains a stable value in terms of some price index of these purely "domestic" goods, since these domestic goods account for the great bulk of economic consumption and production. Fluctuations in the prices of internationally traded goods will not affect the value of the domestic currency to domestic nationals for a "large" currency area with a relatively closed economy (3).

At the other extreme, consider a "small" and very open economy like that of Peoria, Illinois. The fraction of domestically produced goods in domestic consumption is small and the majority of prices of economic goods traded in Peoria are determined in the United States. If there were a separate domestic currency, say the Peorian dollar, the liquidity value of this currency would not be very high if its value were maintained in terms of purely Peorian goods. In order to induce Peorian citizens to take the Peorian dollar seriously as money (i.e. as a unit of account, store of value, etc.), the Peorian authorities would have to convincingly peg it to the U.S. dollar since most goods traded in Peoria will have their prices fixed in terms of U.S. dollars. However, if the Peorian authorities do convincingly peg the Peorian dollar to the U.S. dollar, they will have lost essential control of their own money supply. In other words, to take full advantage of economic integration with the U.S., there will also have to be a common integrated securities market, and thus the structure of interest rates in Peoria cannot be significantly different from the given interest rate structure in the U.S. If there were any differences, these would induce large capital movements which could easily break the fixed exchange rate and thus seriously disturb the stability of trade in real goods and services between Peoria and the U.S. It is absolutely essential for Peoria to maintain full integration with the U.S. to preserve its standard.

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(3) For a more precise and detailed discussion of this idea, see my "Optimum Currency Areas", in American Economic Review, September 1963.
of living. Thus, the Peorian authorities find they must keep the supply of the Peorian dollar just at the level where the interest rate structure inside Peoria is the same as outside, which is a product of years of accumulated wisdom by the U.S. Federal Reserve System. They find they cannot make independent decisions regarding the creation of Peorian dollars. The continued existence of the Peorian dollar may be a useful sop to civic-minded politicians in Peoria, but it could easily be dispensed with once Peorian citizens become psychologically able to stand the loss.

The Position of the EEC and Western Europe

As some of the smaller economies of Western Europe become more fully integrated through lowering of barriers to commodity trade, e.g. Benelux and Denmark, an optimal long-run monetary policy may run along the lines of the Peorian experience. On the other hand, some writers such as James Meade (a) have suggested that the progressive removal of direct restrictions on commodity trade will "disarm" devices which have been hitherto used (among other purposes) to control international payments within the EEC. Thus he argues that the need for floating exchange rates is even more pressing in order that external balance can be maintained without hampering domestic monetary and fiscal policies to attain full employment objectives in each country, or without forcing a reversion to trade restrictions in crisis times. Without trying to minimize the difficulties of achieving full economic integration, one can say that his proposal does not face squarely what economic integration implies, viz.: (a) if the increase in trade within the EEC continues at its current rapid rate, economic interdependence will soon be very large indeed (see Table 1) and member countries will find the scope for independent monetary or fiscal policy to be increasingly limited whether or not there exists a floating exchange rate; and (b) a continuously changing exchange rate is essentially a device for forcing changes in current account commodity trade. For example, a devaluation will increase exports and diminish imports in order to balance the whole of international payments including capital flows. However, as each country becomes more dependent on the other for its most vital economic needs, the sacrificial adjustment of trade in goods and services to capital flows becomes increasingly objectionable and more perverse in its welfare effects. There is an increasing need for capital flows to be the adjusting variable; and a floating exchange rate makes the integration of securities markets across countries very difficult. Integrated securities markets are necessary to permit capital movements to adjust smoothly. This point is discussed in more detail below. (c) Exchange rate adjustments themselves are due to have less proportional effect on commodity trade as integration continues, since an increasing proportion of the economic goods traded within each country will have their price determined in the community at large and will be relatively immune to domestic economic influences.

This loss of effectiveness in exchange rate changes, (c) above, is a direct result of the process of integration. Increasing attention is paid to prices in community-wide terms rather than those denominated in a single national currency. Money illusion, which had operated so as to get people to accept relative price changes via domestic currency price changes, becomes increasingly small. Any exchange rate change will have an immediate significant impact on the price level of domestically traded goods denominated in the domestic currency since such a high proportion of goods have their prices determined outside the country in question. Money illusion is destroyed as domestic nationals realize this and begin to make their economic production and buying decisions in terms of a European-wide monetary standard. In the absence of fixed rates, it is likely that a single national currency of a large country with "sound" monetary management, e.g. the German mark, would become the dominant commonly accepted monetary standard by which individuals make their economic decisions. Good money would drive out bad. However, with convincingly fixed exchanges the dominance of any one currency is unnecessary and the introduction of a common "European" currency can be easily facilitated. This European (non-Gaullist) outlook in economic affairs is of course inextricably part of the political aims of the community. It has the complementary economic effect of improving efficient resource allocation since there will be a common monetary standard by which profit and loss calculations can be made for private investment decisions on a European basis. This is one benefit of the process of

economic integration, providing the EEC Development Fund insures that no major region remains chronically depressed or undeveloped because of lack of social overhead investments.

The French Commissariat du Plan has already felt the force of point (a) above. Its control over the French economy becomes increasingly restricted as economic integration proceeds under the Treaty of Rome with many new economic markets outside of its control. It is clear that very significant changes in fiscal policy within one country will require the acquiescence of the others whether or not free foreign exchange markets exist among them. The independent economic power of national governments will necessarily diminish. For example, an expansionary national fiscal policy would either require financial transfers from other members to provide external support or the other members would have to agree to absorb the additional increase in exports that a devaluation would entail, i.e., they would have to agree to the subsidization of exporters and import competing industries in the devaluing country. Significant exchange rate changes would not be any more acceptable to the signers of the Treaty of Rome than tariffs or export subsidies.

As integration proceeds in the trading of goods, I have tried to show that the need for a common monetary standard becomes more pressing and changes in exchange rates become both less desirable and less effective. How then are external payments to be kept in balance? In (b) above, it was noted that capital movements have to begin to play the role of the adjusting variable since it becomes increasingly undesirable to force changes in commodity trade patterns. Since the need for a system of convincingly pegged exchange rates becomes more pressing, both to insure stabilized commodity trade and integrated capital markets, its accomplishment will mean that national monetary authorities will lose effective control of their money supplies for the same reasons that the Pecoraian central bank lost its control. The interest rate structure across countries in the EEC will become necessarily determined by the need for balancing international payments among members.

Is this concomitant of integration the potential complete loss of independent national control of monetary policy, and to a lesser extent, fiscal policy, an intolerable opportunity cost for the EEC countries? Unfortunately, the answer may be yes unless a great improvement is made in the current status of financial integration in the community. The reasons for this bear some detailed examine-
tions is another. Securities issued by these companies should be among the first to have equal liquidity value anywhere in the EEC. In this sense, a vertically integrated trade structure is complementary to the production of “European” securities. But it is very doubtful that such a natural evolution in the existence of European securities will be sufficient by itself to smooth the possibilities for inter-country money transfers and common monetary and fiscal policies. This is particularly true as long as national monetary authorities hold tight control over important financial institutions such as banks and deliberately limit capital transfers.

Professor James Ingram has a very penetrating discussion of the success of American financial integration among the various states and, recently, with Puerto Rico. Nobody in Puerto Rico knows what the domestic money supply is or worries about inconvertibility or consciously holds exchange reserves. In the middle nineteenth century, financial integration in the U.S. was a less conspicuous success as frontier banks continuously found themselves short of cash and with portfolios of assets they could not market in the east. From time to time, there were waves of regional bank failures. Both Ingram and Scitovsky consider that the Federal Reserve System came into existence about the time integrated financial markets became completely effective. They suggest that the FRB does not have to make any significant balancing payments among areas because of the marketability of financial assets the banks now have. Undoubtedly the issue of federal government securities also created a very useful interest-bearing liquid asset with which the banking system can be stocked. Given the greater barriers to comprehensive financial integration that now exist in Europe, more deliberate policies in addition to simply removing direct controls on capital movements and creating a common European currency may be necessary. A useful step may be for a central monetary authority within the EEC to issue EEC bonds in return for a fraction of the national debt of each member country. Thus an international security market in “governments” would be created. These “governments” would be a useful _quid pro quo_ in the shifting of cash balances. This additional flexibility would make it much easier for the national governments to turn over their money issuing power to an EEC authority. This transfer of power is discussed more fully in the last section on transitional problems.

The process of integration in commodity trade has progressed rapidly within the EEC — see Table 1 below (5).

**Table 1.**

<table>
<thead>
<tr>
<th>EEC Trade as a Percentage of EEC National Income (%)</th>
<th>1952</th>
<th>1954</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-EEC Exports/EEC National Income</td>
<td>5.87%</td>
<td>5.72%</td>
</tr>
<tr>
<td>EEC Exports to Outside World/EEC National Income</td>
<td>15.4%</td>
<td>17.9%</td>
</tr>
<tr>
<td>EEC Exports Outside Western Europe/EEC National Income</td>
<td>7.3%</td>
<td>6.5%</td>
</tr>
<tr>
<td>EEC Exports to U.S. and Canada/EEC National Income</td>
<td>1.9%</td>
<td>1.6%</td>
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Commodity exports (without services) relative to national (international?) income have been taken as a crude measure of interdependence. The year 1952 was chosen as a base point by which to measure the current position (1952) on the premise that most of the distortions in world trade due to World War II had been removed by 1952. The remaining trends should give a rough picture of normal (Cold War) evolution of trade patterns, given the political transformation which is taking place in Europe. Intra-EEC trade has risen by over 50% measured as a fraction of the rapidly growing EEC income. The Community as a whole has become slightly more self-sufficient regarding non-Western European countries where exports dropped about 10% measured as a fraction of EEC income. EEC exports to the U.S. and Canada grew but remained quite small measured in these terms. Intra-EEC exports as a fraction of national income, 2.6% as seen above, would rise if certain periphery countries now part of the EFTA (European Free Trade Association).

(5) This and subsequent tables were constructed from information provided in the Monthly Bulletin of Statistics, United Nations and International Financial Statistics of the International Monetary Fund. The Exports/National Income ratio has ambiguities as a measure of “integration”, particularly when more than two countries are involved. Nevertheless, it has some intuitively satisfying meaning, particularly when trends are important. Note that National Income is used in the denominator and not Gross National Product and that some of the National Income Statistics for 1952 are preliminary.
were added. Table 2 below gives the combined position of the EEC and EFTA.

<table>
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<tr>
<th>Combined Position of EEC and EFTA (6)</th>
<th>1952</th>
<th>1962</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined EEC-EFTA National Income (adjusted bil. lime American dollars)</td>
<td>235.72</td>
<td>269.96</td>
</tr>
<tr>
<td>Intra-EEC - EFTA Exports/National Income</td>
<td>6.77%</td>
<td>11.29%</td>
</tr>
<tr>
<td>EEC - EFTA Exports to Outside World/National Income</td>
<td>10.07%</td>
<td>8.84%</td>
</tr>
<tr>
<td>EEC - EFTA Exports to U.S./National Income</td>
<td>5.87%</td>
<td>1.57%</td>
</tr>
<tr>
<td>Intra-EFTA Exports/EFTA National Income</td>
<td>3.93%</td>
<td>3.96%</td>
</tr>
</tbody>
</table>

We can see that both groups taken together are surprisingly highly integrated (more so than either the EEC or the EFTA by itself) and there is a strong trend toward further integration. Also, there is a strong trend for the group as a whole toward less integration with the outside world. If Britain is excluded from the EFTA for purposes of this calculation, the figure of 11.27% for 1962 for intra-community trade rises to 13.10% and the figure for external dependence drops to 7.96% from 8.81%. This significant change reflects the fact that other EFTA countries are much more closely integrated to the EEC than is Britain. The case of Britain will be examined in some detail later on. It should be remembered that currency arrangements themselves will affect the degree of integration.

Combining this empirical analysis with the previous conceptual discussion, it appears that both the level of integration in Western Europe now achieved and the strong trend toward further integration would mean a single currency system encompassing most of Western Europe (with the possible exception of Britain) is rapidly becoming necessary. However, the political possibilities for accomplishing this are greater within the EEC and it must be the leader. One may have once viewed the two opposing schools of thought, floating exchange rates and fixed rates with financial integration, as alternative means of balance of payments control within the Common

Market. However, I have tried to show that floating exchange rates become a weaker and less desirable control device as integration increases. Further, to be fully efficient, economic integration requires a concomitant financial integration with a single monetary standard and interest rate structure. The idea that this financial integration can be avoided through floating exchange rates, while complete economic integration on the American model is achieved, is illusory. The main reason that the intra-European payments system has not yet run into difficulty, given the present system of rigid exchange rates without financial integration, is the soothing balm of the large American balance of payments deficits. All European governments have been running overall balance of payments surpluses of varying degrees which they have used to build up dollar balances. However, these unintended overdoses of American medicine can only be considered a temporary fortunate coincidence for the intra-European payments system. A start must be made on viable European financial integration to provide a payments system for less fortunate but normal circumstances. Without this financial integration, it will be difficult to preserve even the present state of liberalized commodity trade within the EEC, let alone make the future advances so necessary for both political and economic welfare.

The EEC and the United States: A Dual Currency World?

The optimum single currency system for the EEC and most surrounding EFTA countries which are highly integrated with it does not extend to North America. See Table 3 below.

Either the U.S. alone or Canada and the U.S. combined would form a highly self-contained economy which shows a trend towards increasing autarky. From 1952 to 1962, there has been about a 10% reduction in the fraction of national income earned by exports to the outside world. Direct exports to Western Europe are very small, using the national income measuring rod, only 1.37% for the U.S. by itself and 1.58% for the combined economies in 1962. Again, if Britain is excluded from Western Europe, these direct export figures drop to 1.13% and 1.19% respectively. Conversely, we have similar percentages using Western European income as the yardstick — see Tables 1 and 2. Since the U.S. is not highly integrated with Western Europe, and vice versa, most of the previous arguments and suggestions for a common currency system in Western Europe
can be reversed when applied to relations between the two large areas. In fact, a floating exchange rate between the American dollar and an EEC currency would work well, ignoring for the moment the purely transitional problems. These transitional problems are: (1) the adjustment in the exchange rate for any possible overvaluation of the dollar before floating could work smoothly; (2) the position of the large dollar balances currently held by Western Europeans, and other contractual arrangements of various kinds which are denominated in terms of American dollars; and (3) the financial dependence of Europe on the New York securities markets.

Measurement of economic integration by the export/national income ratios should be tempered by a concern for inter-country capital flows. Such flows may be very important for countries without well organized securities markets of their own. Access to these markets may be valuable even if there is no net capital flow in or out of the country in question. For example, Europeans enter

| Table 3 |
|----------------------------------|------|------|
|                                  | 1951 | 1962 |
| U.S. National Income (undiscounted billions American dollars) | 292.0 | 427.5 |
| Total U.S. Exports/National Income | 5.43% | 4.69% |
| U.S. Exports to EEC/National Income | 6.06% | 5.78% |
| U.S. Exports to Western Europe/National Income | 1.11% | 1.37% |
| U.S. Exports to Western Europe excluding U.K./National Income | 9.7% | 2.1% |
| Canadian National Income (undiscounted billions American dollars) | 19.15 | 23.39 |
| Total Canadian Exports/National Income | 23.18% | 20.87% |
| Canadian Exports to U.S./National Income | 12.09% | 11.8% |
| Other Canadian Exports (National Income) | 10.53% | 9.07% |
| Combined Canadian - U.S. National Income | 31.3% | 41.8% |
| Total Net Exports/Combined National Income | 4.8% | 4.14% |
| Total Exports to Western Europe/Combined National Income | 1.47% | 1.29% |
| Total Exports to Western Europe excluding U.K./Combined National Income | 1.08% | 1.39% |

New York securities markets both as buyers and sellers. Of course, large net capital flows reflecting genuine differences in the social profitability of investment will increase the importance of having access to such a market. Thus if one were to weight the importance of financial integration in the above exports/national income ratios these ratios would be shown to understate the interdependence of Western Europe and the United States, and probably to overstate the interdependence among Western European countries.

Although this "perverseness" of financial integration compared to commodity trade is very real at present, it is basically artificial and unnecessary. It simply reflects: (a) the absence of a single large currency area in Europe; (b) the restrictions still maintained by European national governments on capital movements; and (c) the development of financial institutions in New York which has not been interrupted by wars and political upheavals of the kind experienced in Europe. The prior existence of specialized financial institutions in New York where economies of large size are important probably greatly hinders the development of equivalent embryonic European institutions. European reliance on the Euro-dollar market is testimony to the absence of a single European currency of sufficiently high liquidity value. The development of a financially integrated single currency system in Europe, which we have already seen is necessary for balancing intra-European payments, would remove much of the artificial financial dependence on New York. A floating exchange rate would give further impetus toward reducing this dependence. However, there still remain difficult transitional problems which will be considered later in the article.

Recently (July 28, 1963), a report to the American government by the Brookings Institution very briefly introduced the notion of a dual currency system connected by a floating exchange rate as a "second-best" solution if efforts to increase world liquidity are unavailing. This evoked an anguished, but probably prepared, disclaimer from the Under Secretary of the Treasury, Mr. Robert Roosa. However, Mr. Roosa's concern was with what I have called the transitional problems -- principally the large overseas holdings of American dollars. From a long run point of view, this floating exchange rate would indeed be the optimal solution, provided Europe evolves a single currency system of liquidity value comparable to that of the American dollar. Since these two large currency areas are not at all closely integrated in commodity trade, a floating
exchange rate which continuously changed the prices of goods that entered foreign trade vis-a-vis domestically traded goods, would make virtually no significant impact on average domestic price levels within either area. The profitability of exporting will rise and importing will fall in the areas whose currency was devalued, and vice versa for the other area. This high elasticity of response of the small foreign trade sector connecting each large area makes the changing exchange rate a fairly efficient control device. Relatively small exchange rate changes would be required to induce a given proportionate change in the trade balance.

Parenthetically, it might be noted that standard discussions on the problem of measuring elasticities of supply and demand for goods that enter foreign trade usually consider commodities in isolation. Computations are run to measure, say, the elasticity of demand for imports by regressing imports of a particular commodity on its relative price compared to some domestic price index. Judgments are made on the total elasticity of demand for a country’s imports by looking at elasticities of demand for individual commodities — judgments are made on the total supply elasticity for exports in the same way. However, the total elasticity of demand for all imports will be less than the sum of the weighted elasticities of individual commodities. It is the former total which is relevant in the case of an exchange rate change. The larger the total foreign trade sector, the smaller will be the total effective elasticity of demand for imports compared to the weighted sum of the elasticities of demand for individual commodities. If we take the extreme case of an economy where virtually all goods consumed are imported, say Monaco, then the effective elasticity of demand for all imports, given a price change induced by an exchange rate adjustment, will be extremely small because of the lack of domestic substitutes. The internal consumer price index will change by the amount the exchange rate changes. For a significant price elasticity of demand for imports as a whole to exist, there must be significant substitution possibilities for imports as a group with domestically produced goods as a group — which means the foreign trade sector has to be small relative to the “domestic” sector. The same arguments hold for the responsiveness of exporters to an exchange rate change. The dominant consideration in determining the effective elasticity of response of commodity trade to an exchange rate change is the relative size of the foreign sector. Of course, the elasticity for individual commodities will have some influence. If trade between two areas is in manufactured products, which are highly substitutable with domestic production, then an exchange rate change will be more effective than if trade is complementary, for example the trade of manufactured products for agricultural products. For trade between the EEC and the U.S., there is a small common foreign trade sector and trade is largely in substitutable manufactured products, i.e. the EEC is rapidly becoming more self-sufficient in agricultural produce and the U.S. is no longer such a heavy exporter of raw materials. Thus on both counts we would expect a floating exchange rate between the EEC and the U.S. to effectively influence current account commodity trade and thus efficiently control the balance of payments as a whole.

Although we would expect a floating exchange rate, completely free of official support, to be a relatively efficient control device for the balance of payments between these two large areas, it need not be quite the best solution. An official exchange equalization fund uncommitted to any particular pegged rate which offset short run speculative movements arising from random political occurrences could perform a very useful function. Care would have to be taken that such a fund never attempted to maintain a disequilibrium rate for any significant time period. As in the case of the British Exchange Equalization Fund of the 1930’s, this fund would simply “lean against” temporary market fluctuations in such a way as to net a small profit. Such a fund operating with well organized private futures markets could minimize the exchange risk associated with current account commodity trade transactions.

Precisely because the foreign trade sector is small, continuous alteration of the prices of commodities that enter foreign trade via a floating exchange rate need not have a significant disruptive effect in either large currency area. Short term capital flows and portfolio investment, which can only be imperfectly hedged, may be reduced, but between large economically developed areas this should be an insignificant economic loss. Very often these portfolio flows are not the result of a different social profitability of investment in one large region as compared to another. Rather, they may be the result of different monetary authorities attempting to follow different interest rate policies at the same time; or they may be speculative movements anticipating exchange rate changes. Thus, these investment flows between large areas with separate currency systems do not necessarily
improve the allocation of investment resources between these areas. However, direct investment should not be hampered significantly by a floating exchange rate, and this is the vehicle by which technical information and production "know-how" are transmitted. For direct investment, actual cash outlays are very small relative to the average rates of return that can be earned on such investment. This increased exchange risk would be a relatively minor consideration for direct investment even though it may be considerable for portfolio investment. As long as both the EEC and the U.S. have virtually equally desirable currencies, there is no reason to fear a chronic flow of portfolio investment in one direction — as one would expect to find from an underdeveloped country to the United States.

Because portfolio investment flows would be less sensitive to interest rate differentials, and because a changing exchange rate itself would have only a minor disturbing effect on economic activity, different monetary policies tailored to meet domestic needs could be easily carried out with a floating exchange rate. A low interest rate policy in one area could be used against unemployment and a high interest rate policy in the other against inflation, if need be. The resulting small capital flows cause the low interest rate area's currency to depreciate but this is quite bearable as the resulting disruption in foreign commodity trade would be small in its economy-wide impact. It is anomalous, even pathetic, that the small American foreign trade sector — see Table 3 — with the much smaller direct trade connection with Western Europe, should be allowed to greatly influence American monetary and fiscal policy. The gains in the value of output to be had from restoring full employment and full capacity are far greater than the dollar value of the whole foreign sector — and this foreign sector need only suffer some inconvenience from the floating exchange rate. This would not be the case if both areas were highly integrated in their commodity trade. Also, since the U.S. and the EEC are not highly integrated, the probability is much greater that there will exist different conditions of inflation or depression in each area compared to the probability of such differing conditions existing among the highly integrated countries of the EEC. Thus it is more important for the U.S. and EEC to be able to use independent monetary and fiscal policies freely, and a floating exchange rate permits them to do so with very low opportunity costs.

Paradoxical as it may seem, it is clear that a high degree of integration between the financial markets of the EEC and U.S. may be optimal with a floating exchange rate. We would not want capital flows to be sensitive to interest rate differentials in order that independent monetary policies be feasible. The maintenance of exchange controls on European capital movements and the recent (July 1962) forced imposition of taxes on foreign security purchases by President Kennedy should serve to reduce interest rate sensitivity in the future. An all or nothing situation may be desirable. That is, we should either have: (1) total financial and economic integration with fixed exchange rates — the optimal internal EEC solution; or (2) a floating exchange rate with limited financial integration — the EEC-U.S. optimal solution. For many countries, the adjustable peg system without financial integration (which they have backed into) gets the disadvantages of both (1) and (2). Countries are inhibited from using monetary policy, or even fiscal policy, vigorously to satisfy domestic needs and they shrink from using the exchange rate adjustment until their difficulties become very great. They do not get the full advantage of the division of labor associated with economic integration or complete control of internal full employment. This unsatisfactory middle ground of the adjustable peg may be the concomitant of a country not having (1) or (2) as clear alternatives — a problem which fortunately neither the EEC nor U.S. face.

Problems of Transition to a Dual Currency System

Evolving a genuine dual currency system as envisaged above faces some immediate transitional problems which can be overcome and should not be allowed to obscure the ultimate desirability of the dual currency arrangement. These transitional difficulties are all very closely related and therefore must be considered jointly. As mentioned before, they are: (1) the present inadequate development of European securities markets inhibiting intra-European money flows and forcing many European borrowers to depend on New York; (2) the exchange rate adjustment for the possible overvaluation of the dollar if a floating exchange rate is to work smoothly; and (3) the position of the large dollar balances currently held by Western European banking systems — about 72 billion dollars at last count (October 1963). Because of the American balance of
payments deficit, an immediate floating of the American dollar (the removal of official supports) would cause a fall in its value vis-à-vis the currencies of Western Europe. This devaluation would not significantly diminish the purchasing power of these dollar balances to buy American goods, but their real purchasing power for intra-European transactions would decline.

The extent to which the dollar is currently overvalued is not likely to be large. Indeed, it depends very much on whether European banking systems would continue to acquire dollar balances in the absence of a formal fixed exchange rate system. This would depend on both government policies executed by central banks and the direct economic interests of the commercial banks. Both are rather imponderable. However, even if these banks stopped acquiring dollar assets altogether (so long as they did not unload existing stocks of dollar assets) the American deficit would roughly correspond to that measured by the U.S. Department of Commerce, which is about ten per cent of total American payments. Moreover, recent inflationary trends in Europe would tend to confirm the Brookings projection of balance in American payments by 1968. The extent of the capital account deficit is aggravated by the underdevelopment of European securities markets and direct restrictions on intra-European lending by some countries. Thus, the New York securities market has been cast in the role of a financial intermediary purchasing relatively illiquid European securities and issuing very liquid short term dollar claims to Northern European banking systems, all of which are counted as part of the American deficit by U.S. Department of Commerce accounting procedures. If European capital markets were to develop to the point where these Northern European banks directly purchased European securities which are now floated in New York, this source of pressure on the American dollar would be reduced (6). As we have seen, such a development is also necessary to facilitate a viable intra-European payments system. A floating exchange rate would act as an important catalyst in the formation of a European securities market by making access to the New York market less desirable for European borrowers, providing European financial institutions were sufficiently developed.

The words “financial integrity” are greatly overworked as a substitute for economic analysis within the international banking

(6) I am indebted to professor Edward Flann for this point.
ments are rightly suspicious of the inadequate payments balancing devices now in existence.

The Keynes-Triffin plan for expanding the IMF into a world central bank with the power to create international liquidity (money) does not directly fit in with this analysis. It presupposes a fixed exchange rate world when a dual currency system may be optimal. A key part of the Triffin proposal is the internationalization of outstanding pound and dollar balances now largely held by Western European central banks by having them turned over to this international authority in return for accounting credits. In this way the "key" currency countries will be freed from the fear of a run on the dollar or pound, such as that which caused the international monetary system to collapse in 1931. Thus, they would be free to pursue more rational monetary and fiscal policies. This result would certainly hold more strongly if there existed a dual currency system which gave assurance that payments would automatically be balanced within Europe and between Europe and the U.S. once the dollar and pound balances were "internationalized".

A variant of the Triffin proposal, in keeping with the dual currency system, is that an EEC institution — not a world-wide institution — should assume control of these dollar and pound balances held by European banks. Besides being more feasible, given the existing political institutions of the EEC and the common interest of its members in this matter, this variant proposal would serve to kill two birds with one stone: (1) it would be much easier for the U.S. to negotiate a dollar guarantee with a single EEC institution rather than to try multilateral negotiations which any one country could easily wreck by attempting to "cash in" its dollar balances for U.S. gold and thus put pressure on the others; (2) this new EEC institution would evolve into the European central bank so badly needed if the single currency system within Europe is to be viable.

Initially, this EEC central bank would only hold units of account for member countries in return for their dollar and pound balances. These units of account could be used for intra-EEC settlements in the manner of the European Payments Union (EPU). They would be more satisfactory than dollars for this purpose if there was to be a floating exchange rate with the U.S. However, one main purpose of the old EPU — the facilitation of multilateral European debt clearing — has already been achieved through convertibility.

The maintenance of effective convertibility among European currencies since 1958 has been greatly helped by the accumulation of dollar balances which have meant that intra-European creditor nations have had no doubts about the ability of European debtor nations to "pay" since both groups have run surpluses with the U.S. Until recently, the U.S. dollar has been considered to be adequate "money" for this purpose. As mentioned previously, this system will become less viable when the U.S. begins to balance its international accounts. The increased economic integration and rules of the EEC make exchange rate adjustments or direct trade control among EEC members less desirable and more difficult as balancing devices. Thus, a common financial system for the EEC, as discussed above, should evolve and the consolidation of the pound and dollar balances in one institution could be a useful beginning.

The ultimate goal of such an EEC institution would be for each individual European currency to establish a fixed rate of exchange with the EEC units of account so that governments and individuals accept national currencies as if they were equivalent to these units of account. A transaction could take place using currency from any region of the EEC without having to formally convert it to that of any other region using it. The maintenance of national names such as gulder, franc, etc., together with value equivalents in an EEC currency, would be possible for psychological purposes but really unnecessary from a legal point of view. The issuance of this international money would be the province of this EEC central bank, and its dollar reserves (and possible gold reserves) would provide something of a psychological crutch to infidel nonbelievers.

With the issue of this international currency by an EEC institution, the powers of national governments to issue their own currencies will have to be carefully circumscribed. No attempt is being made in this paper to give a detailed discussion of what form these institutional arrangements should take. However, it appears necessary that the transition period will be one in which successively greater restrictions are placed on the "money" issuing powers of national authorities and most new monetary expansion should be controlled by the EEC institution. Flexibility to obtain "money" by national governments or regions would be maintained by an active market in international government securities where national authorities can get money by selling some of their assets or by "going into debt" by promising to repay in terms of international money. As
financial integration proceeded, purely national control in the EEC of monetary and fiscal policy would necessarily evolve to the position that state governments inside the U.S. have now. They would have no direct power to issue "money" and "fiscal" policy would be limited to paying for expenditures through current taxes or by floating bonds in the integrated securities markets. Overall problems of income stabilization would necessarily have to be assumed by an EEC institution which operated through these integrated securities markets. Individual banks, both nationalized and private, would have free access to these markets and would be controllable through open market operations on the part of the central EEC monetary authority.

The above crude sketch of what form financial integration must take seems fantastic given the current status of financial integration in Europe. Yet it is hardly more unreal than the projections for integration of commodity trade would have seemed twelve years ago when the European Coal and Steel Community was formed. One of the main theses of this paper has been that there is no satisfactory alternative to financial integration in the EEC (and possibly EFTA countries without Britain) if the current level of integration in commodity trade is to be extended or even maintained. What is needed is a definite timetable for financial integration of the kind used to force reductions in trade barriers. A timetable ending in complete integration would make any issue of international currency by an EEC central bank more credible and acceptable as money, just as prospective reductions in trade barriers greatly stimulated trade. It is necessary for the EEC to make good use of its period of grace, due to the lucky accident of the large American deficits, to construct such a timetable.

From a technical point of view, floating a currency is much easier at a time when it is not overvalued in its pegged position, i.e. there does not exist a balance of payments deficit. When a currency is overvalued, speculation can very easily dominate the market when floating is tried, since there is not likely to be a consensus of opinion on where the equilibrium rate should be. This means that the American authorities may be forced into devaluing first, finding a position where there is no deficit, and then floating. It may mean that a devaluation greater than is optimal from a long run point of view has to be undertaken in order to convince speculators that no further falls in the currency are likely. Thus one can see that European governments would have great incentives to get rid of their dollar balances and aggravate the situation unless some kind of guarantee, as discussed above, was given. If the American authorities were to take the assumptions underlying the Brookings study seriously, by 1968 the American balance of payments deficit may disappear. Thus it might be possible to float the exchange rate then without an immediate sizable devaluation or an elaborate structure of guarantees. Nevertheless, to wait this long for what is necessarily an uncertain event in my view gives up too much in the way of lost domestic production in the U.S. in the intervening four or five years. The relatively small foreign trade sector should not be allowed to dominate domestic monetary and fiscal policy for such a long time period. However, it is optimal to wait a short while until the situation is relatively favorable, i.e. the interest equalization tax on foreign security purchases goes through and foreign military expenditures are pared as far as possible. If immediate steps were taken to encourage intra-European lending, this would also remove pressure on the dollar. These policy measures, together with a guarantee on outstanding dollar balances, should serve to minimize the extent of the devaluation necessary. Once the dollar is devalued to a lower pegged rate, the American authorities should state their intention to float the dollar at a future time and that they believe the future freely determined rate will be slightly above the new pegged rate. Never again should the monetary authorities commit themselves to a fixed exchange rate between the U.S. and EEC unless there is a very great growth in the direct trade connections between these two large areas. The costs of a fixed exchange rate in terms of lost flexibility in both the EEC and U.S. to carry out independent monetary and fiscal policies — either anti-inflationary or income stimulating — are simply too great.

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APPENDIX

Other Major Trading Nations

The above discussion on optimizing world currency arrangements has dealt with what might be considered the two extreme cases: the relationship among the increasingly integrated Western European countries on the one hand and the relationship between the U.S. and the EEC/EFTA on the other. Again,
ignoring transitional problems, the optimal solutions for both these extreme cases are easy to see. The position of most other countries in the western world are somewhat in between and less straightforward to diagnose. It seems likely that many small countries will find it optimal to peg their currency to either the EEC currency or the American dollar because of their economic dependence on one bloc or the other and their desire to maintain the liquidity values of their own currencies. The problem of choosing is only really relevant for the advanced countries which permit free foreign exchange transactions by all private citizens and have fairly stable domestic price levels so that prices are used as a means of controlling resource allocation. Those countries with extensive exchange controls and continuous internal inflation tend to have their foreign trade more or less directly administered by their governments. Thus, the choice of a particular price system by the form of a peg to a major bloc is not pressing and not sustainable. Presumably, internal inflation will continue to be the dominant factor forcing continuous changes in the prices of their currencies compared to either of the large blocs. The cases of these advanced countries where prices and monetary systems are important are discussed below.

Canada: The Canadian case is interesting because Canada tried a floating exchange rate prior to 1960 and it appeared to work rather well in balancing international payments. Canada is a highly open economy as Table 3 shows. We note that Canadian economic dependence on the U.S. has weakened very much while its dependence on the outside world has declined significantly in the ten-year period 1952-1962. In 1962, the average integration level with the U.S. -- 33.27% of its production going to the U.S. -- was similar to integration so far achieved in Western Europe: see Table 2. However, in Western Europe there is a strong trend toward further integration while there is no such trend between Canada and the U.S. Whether there would have been such a trend if Canada had a common currency system with the U.S. is impossible to divine. This is not the place to give a detailed analysis of Canada's position, but some casual empiricism would suggest that the Canadian experience gives some support for a single North American currency system. Certainly, the range of fluctuation in the exchange rate for the Canadian dollar was small after 1952 -- about 8%. This exchange rate stability existed while there was a large fairly smooth capital flow from the U.S. into Canada, although the Canadian dollar had to appreciate significantly in the period 1959-1962 to accommodate this inflow. The machinations of Canadian politicians in 1961 aimed at disrupting the capital flow into Canada were largely motivated by the belief that the Canadian dollar was overvalued and they tried to "talk it down". Further hamfested tactics involving attempts to tax American investors early in 1961 have greatly weakened the smooth workings of capital flows between the two countries. However, they do highlight certain difficulties in Canada's carrying out a separate monetary policy even with a floating exchange rate.

Generally, the conditions of inflation and recession in the postwar United Stated were reflected in Canada and there was no need for significantly different monetary and fiscal policies in Canada as compared to the U.S. In fact, the Canadian authorities used their scope for independent monetary and fiscal policies (given to them by the floating exchange rate) rather badly after 1956. Interest rates on Canadian government bonds were kept about a point and a half above the American equivalent from 1952 to the beginning of 1962. This attracted a capital inflow from the U.S. which largely replaced Canadian financing but had the additional effect of keeping the value of the Canadian dollar high, which hampered the expansion and encouraged imports. Economic stagnation which existed in the U.S. in this period was much greater in Canada, where per capital real income did not rise and unemployment was much higher.

In sum, Canada has gained little from the floating exchange rate (although it could have done better) and the gap between Canadian and American per capita income has not been closed. Full economic integration with a common currency could greatly increase Canada's per capita income -- witness the far greater prices Canadians have to pay for American durable goods such as autos. However, care would have to be taken that Canada's yet rather weak industrial base was not eroded by short-run profitability considerations if integration was to occur. Most manufacturing activity in Canada would shift to the U.S. unless there were special tax concessions to permit it to be built up further. Other concessions could take a more modest but similar form to those used by Puerto Rico. In addition, the lagging participation by Canada in modern technology could be improved by the establishment of one or more university-research-industrial complexes, of which none now exist. With these safeguards for its industrial and technological development, Canada, and to a lesser extent the U.S., could substantially benefit from the formation of a North American common market with fixed exchange rates and integrated capital markets. A common currency system could rather easily evolve providing there was no interference in the natural working of the capital market by either Canadian or U.S. authorities.

Great Britain: One unique aspect of the Brookings report was the idea of a pound-dollar peg with both floating in terms of the EEC currency as an alternative to improving world liquidity arrangements. From a short term point of view this seems reasonable, since both currencies are probably slightly overvalued and need the opportunity to embark on expansionary monetary and fiscal policy without being hampered by foreign balance constraints. However, from a longer run point of view, what the monetary position of Britain should be is not so clear, as Table 4 shows.

Although the fastest growing part of an otherwise declining foreign trade sector is direct exports to the EEC, total exports to both the EEC and the EFTA countries are not high by other standards, i.e. the integration achieved among EEC and other EFTA countries -- see Table 3. British exports to the U.S. and Canada, using the national income yardstick, have grown a little but still remain...
moderately small, Exports to the sterling area show a drastically declining trend but still remain a large component of total trade.

There seem to be at least three alternatives, assuming the sterling area remains tied to Britain: (1) the pound-dollar peg; (2) a pound-EEC-EFTA currency peg; (3) a separately floating British pound. One great difficulty in making a choice is that the choice itself will likely have some effect on the future development of trade patterns. The "short run" solution of a floating pound-dollar may inhibit the potential future British integration with Western Europe, contrary to Britain's long-run economic and political interests. Alternative (3) has

<table>
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<tr>
<th>POSITION OF GREAT BRITAIN (9)</th>
<th>1952</th>
<th>1962</th>
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</thead>
<tbody>
<tr>
<td>British National Income (unadjusted billions American dollars)</td>
<td>35.50</td>
<td>65.0</td>
</tr>
<tr>
<td>Total Exports/National Income</td>
<td>20.12%</td>
<td>26.86%</td>
</tr>
<tr>
<td>Exports to EEC/National Income</td>
<td>4.57%</td>
<td>3.31%</td>
</tr>
<tr>
<td>Exports to EFTA/National Income</td>
<td>3.00%</td>
<td>3.05%</td>
</tr>
<tr>
<td>Exports to U.S. &amp; Canada/National Income</td>
<td>2.17%</td>
<td>2.36%</td>
</tr>
<tr>
<td>Exports to Sterling Area/National Income</td>
<td>5.95%</td>
<td>5.97%</td>
</tr>
</tbody>
</table>

the same difficulty as (1) but brings up the question of whether the pound sterling area is sufficiently "large" in the sense that I have used the term. Is the foreign trade sector sufficiently small that continuous balance can be achieved through relatively small fluctuations in the exchange rate? The Canadian experience indicates that Britain is sufficiently "large" and, with more prudent monetary policy than Canada used, could probably successfully float the pound without any immediate difficulties, although the rest of the sterling area, with their heavy capital needs, might not go along with a floating pound.

The real dilemma for Britain is whether or not she should aim for the possibility of unhampered use of monetary and fiscal policy for short run objectives, i.e., the floating exchange rate, or try for the longer run objective of integration with one of the larger blocs. Modern technological developments seem to make economies of scale increasingly important so that truly competitive capitalism can only function efficiently within a large market area. However, the transition period would be difficult because of these short run needs to

(9) See note 5.

Optimum World Monetary Arrangements and the Dual Currency System
maintain the free use of monetary and fiscal policy. An economy of the same size fully integrated into a large bloc would not have the same needs for independent monetary and fiscal policy. An additional short run difficulty that Britain might face arising out of integration with Europe would be the use of the London capital market by European borrowers. This use would reflect the rather undervolled state of European capital markets compared to London and might be manifested in a capital outflow from Britain which could intensify payments balancing problems in the early stages of integration. The British problem is really much less tractable than that of the U.S., and possibly a final solution would depend on some major political development such as acceptance for membership in the EEC and the development of viable single currency system in that area. In this event, alternative (2) might be worth a try because of the long run benefits. In the interim, a peg to the American dollar may be the best compromise. It might be noted, however, that a floating pound which is initially devalued relative to European currencies might not be accepted by the rest of Western Europe. They may raise their direct trade barriers to British exports. It would be valuable to have prior agreement with Western European Central bankers, which may be asking for the moon.

Japan: The position of Japan is similar to that of Britain as it has a moderately large and fairly open economy; but it could potentially gain a good deal with more complete integration with an outside bloc.

<table>
<thead>
<tr>
<th>THE POSITION OF JAPAN (9)</th>
<th>1952</th>
<th>1962</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese National Income (unadjusted billions American dollars)</td>
<td>13.77</td>
<td>43.66</td>
</tr>
<tr>
<td>Total Exports/National Income</td>
<td>9.23%</td>
<td>12.17%</td>
</tr>
<tr>
<td>Exports to U.S./National Income</td>
<td>7.79%</td>
<td>6.78%</td>
</tr>
<tr>
<td>Exports to Western Europe/National Income</td>
<td>1.31%</td>
<td>1.67%</td>
</tr>
</tbody>
</table>

Japanese exports to the U.S. have been growing relatively fast even in terms of its rapidly growing national income. Exports to Western Europe have been growing much less quickly. As yet, Japan is not heavily integrated through trade into either large bloc although the statistics given in Table 5 probably underestimate Japanese dependence on international trade. The ability of the Japanese to get critical raw materials and advanced capital goods — largely from

(9) See note 5.
North America — has been crucial for its rapid economic growth. Only recently has the Japanese government taken some modest steps to liberalize the importation of manufactured consumer goods. Thus, export earnings have been largely used to buy only the most necessary “hard core” imports. Further reciprocal trade agreement between Japan and the North Atlantic countries could mean a continued relative expansion in Japanese foreign trade relative to Japanese national income. Such an evolution implies that the extensive direct controls Japanese authorities now exercise over commodity trade would have to be liberalized to the point where Japan could become a full-fledged member of GATT (the General Agreement on Tariffs and Trade).

However, given the present highly managed nature of the Japanese currency (including controls of capital movements), a free foreign exchange market with a floating exchange rate would not work too well. The foreign trade sector would not be responsive to continuous price changes in the yen, both internally and externally where Japanese exports still face administrative restrictions on the part of many countries. The optimal interim solution would seem to be to maintain the yen-American dollar peg with continued management of the yen as the main control device. In the future, as liberalization of direct controls proceeds, a decision to try for complete economic integration with North America might be made if the political conditions were right. This integration could be viable if it took place both in the capital markets and in commodity trade, as is necessary in the case of Western Europe. Indeed, access to American capital markets is probably quite important for Japanese economic development. Thus, even in the absence of complete economic integration with the U.S., the Japanese government should try, as best it can, to maintain the yen-dollar peg in a dual currency system.

R. I. McKinnon

The Influence of the Public's Behaviour on Liquidity Creation(*)

1. Not everybody is always clear about who creates the economy's liquidity, understood as liquidity of the "public", that is, of all the operators (public and private) who have dealings with the credit system and the Treasury. To put it in a better way, while it is easy to realise that the liquid funds in the hands of the public cannot be created except by the credit system and the Treasury, since these are responsible for those funds, as debtors towards the public, it is not equally easy to grasp how and with what weight the public's behaviour can affect the amount of liquid resources in existence.

In this respect one can well say — as frequently it is said — that the monetary authorities, in causing increases of liquid resources, aim at meeting demands for liquidity by the public, who in this way is said to make its influence felt, indirectly, on liquidity creation. Yet the question arises whether such influence of the public makes itself felt solely indirectly, through the evaluations of those demands by the monetary authorities, or directly and autonomously as well. In other words, the question arises whether the public's influence can also develop independently of, or even in opposition to, the influence of the credit system and the Treasury, to such an extent as to lead to the public being regarded as an autonomous "factor" as far as the determination of the amount of existing liquid resources is concerned.

2. In order to reply to this question — as we propose to do in the present study — it is as well to recall some elementary notions which, while rather obvious, are not always borne in mind.

(*) From the contributions in honour of Prof. G. U. Papi collected within the sphere of the Institute of Economy and Finance of the Rome Faculty of Law.