

ESSAYS IN INTERNATIONAL FINANCE

No. 98, April 1973

THE CASE FOR
EUROPEAN MONETARY INTEGRATION

JAMES C. INGRAM



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

This is the ninety-eighth number in the series **ESSAYS IN INTERNATIONAL FINANCE**, *published from time to time by the International Finance Section of the Department of Economics of Princeton University.*

The author, James C. Ingram, is Professor of Economics at the University of North Carolina. He is the author of Regional Payments Mechanisms (1962), International Economic Problems (1970), and several articles in the field of international economics.

The Section sponsors the essays in this series but takes no further responsibility for the opinions expressed in them. The writers are free to develop their topics as they wish. Their ideas may or may not be shared by the editorial committee of the Section or the members of the Department.

PETER B. KENEN, Director
International Finance Section

ESSAYS IN INTERNATIONAL FINANCE

No. 98, April 1973

THE CASE FOR
EUROPEAN MONETARY INTEGRATION

JAMES C. INGRAM



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

Copyright © 1973, by International Finance Section
Department of Economics
Princeton University
L.C. Card No. 73-3846

Printed in the United States of America by Princeton University Press
at Princeton, New Jersey

The Case for European Monetary Integration

The elder statesmen and architects of the European Economic Community foresaw its eventual evolution into a full common market, with complete monetary and economic integration. Their vision included ultimate creation of a common currency, or at least a system of irrevocably fixed exchange rates, but they wisely refrained from specifying a timetable for the final stages. In the euphoria of the early 1960's, proposals for immediate movement toward monetary union came to the fore, as in the *Action Programme for the Second Stage* (1962), but the veto of British entry and the emergence of difficult issues of trade policy for which a consensus had to be worked out caused interest in monetary integration to subside. This issue was merely dormant, however, and new initiatives have appeared in recent years. These have found clearest official expression in the Werner Report, submitted to the Council of Ministers in October 1970, and the subsequent Resolution and Decisions issued by the Council in February 1971.

Although the Council avoided, in its "precautionary clause," a final political commitment to proceed all the way to complete monetary union, its resolution implies acceptance of such a union as the ultimate goal, with irrevocably fixed exchange rates, complete freedom for labor and capital movements, and a sufficient transfer of authority from national to Community institutions to permit the main economic-policy decisions to be made at the Community level. In present thinking, this goal is to be achieved by stages in about a decade. The Council resolution states that in the first three-year stage—beginning January 1, 1971—steps will be taken to strengthen coordination of short-term economic policies, to allow greater freedom of movement for labor and capital, to narrow the range of fluctuations between Community currencies, to harmonize tax systems, and generally to develop mechanisms for formulating Community-wide economic policies. The question of further action, including the drastic and "final" decision to accept a binding and irrevocable commitment to create a full monetary union, will presumably come up toward the end of the first stage. (For an historical account of the movement toward European monetary integration, see the recent paper by Bloomfield, forthcoming.)

Economists tend to be skeptical about the merits of monetary integration, and doubtful that it is either desirable or workable in the European

Economic Community, at least in the near future. Corden's recent essay (1972) in this series is a notable example. In assessing the benefits and costs of monetary integration, he found few, if any, benefits, and one major drawback—the losses arising from “enforced departure from internal balance.” In view of the apparent strength of the forces pushing Europe toward more integration, one wonders whether political leaders are simply ill-informed, whether they are assigning more weight to non-economic considerations than are the economists, or whether economic analysis is itself deficient in some way. Perhaps the modes of thought used by economists cause them to neglect important economic aspects of the changing institutional structure of Europe. We should not forget that economists were also skeptical about the European Common Market, and most advance estimates of its net benefits to members were close to zero. While the final verdict is not in, and the net benefit of the Common Market per se is as difficult to measure as ever, the EEC has certainly prospered since 1958, and the Community structure has survived a number of severe tests of its unity and cohesion.

It now seems quite possible that the tide of events and the political momentum in the European Community will cause it to adopt monetary integration despite the pessimistic appraisals of economists. If it does, and if the new system proves to be successful, it will not be the first time that economic analysis has lagged behind the course of events.

The purpose of this essay is to set forth the positive side of monetary integration in the European Community, and, in the process, to question the basis of the negative case that seems to be the majority view among economists. This emphasis on the positive side does not mean, however, that monetary integration will be easy and painless. It is no panacea, and difficult economic problems will remain. The argument for integration is largely pragmatic—that monetary integration has some advantages over practicable alternatives, that it is logically consistent with the trend toward economic integration in Europe, and that it can be made to work.

The Logic of Economic Integration

Creation of a single market for goods, services, and financial assets implies the existence of common prices and of a common money, whether a single currency or several currencies linked by rigid exchange rates. Since 1958, the European Community has substantially completed the formation of such a unified market, though labor mobility is of course far from perfect (as it is even within a nation or region) and numerous obstacles still impede trade in financial assets. The virtual elimination of national tariffs and other barriers to intra-Community trade in indus-

trial goods has tended to create common prices for such goods, while adoption of the Common Agricultural Policy has entailed explicit acceptance of common prices for farm products. These common prices serve as signals for the allocation of resources and for the determination of comparative-advantage positions in the several member nations.

At the same time, the acceptance of full currency convertibility for current-account transactions and successive steps to liberalize capital movements, both long- and short-term, have greatly limited the ability of a single nation to pursue a monetary policy that differs appreciably from the rest of the Community. An attempt by a single central bank to expand the money supply, reduce interest rates, and increase aggregate demand would lead quickly to payments pressures on both current and capital accounts. A restrictive monetary policy, on the other hand, would simply invite an inflow of funds, as Germany has found. The development of the Eurodollar market has accentuated the interdependence of the monetary systems and their sensitivity to divergences from a Community norm. It now seems generally agreed that member nations have so many close links among their economies that national autonomy in monetary policy is seriously eroded if exchange rates remain fixed.

One reaction has been to conclude that these developments make it even more imperative to retain exchange-rate variability in order to permit nations to pursue separate monetary policies and thus to preserve national autonomy. This view, however, seems fundamentally antipathetic to the evolutionary trend toward economic integration. Once the member nations have forged all these links among their economies, worked their way through the delicate and difficult negotiations and compromises necessary to reach consensus, and even accepted and accomplished many of the adjustments required of them, they can hardly allow the solutions reached to be basically and perhaps drastically altered by exchange-rate changes. Economic integration leads logically toward fixed rates, monetary union, and ultimately a common currency. Advocacy of flexible exchange rates within the European Community is essentially an expression of opposition to economic integration.

It appears that Europe has reached a halfway house, a point at which it cannot stand still. Creation of a common market for agricultural and manufactured products and integration of money and capital markets have already gone so far that, with *fixed* exchange rates, nations can no longer pursue divergent monetary policies. Their effort to do so, in the mistaken belief that they still possess national autonomy with respect to monetary policy, will lead to trade deficits and massive short-term capital movements, and will thus precipitate balance-of-payments crises. Exchange controls can have some influence on capital flows, but not

enough to alter the outcome. Either exchange rates will be forced to change or extensive restrictions on trade and payments must be introduced, subverting economic integration.

On the other hand, if European exchange rates are made flexible, the degree of economic integration already achieved will be undermined, as suggested above. Exchange-rate changes would undermine the network of agreements and the consensus for integration that have evolved since 1958. Perhaps the most dramatic example concerns the Common Agricultural Policy, according to which Community-wide prices are set for major agricultural products. Devaluations, revaluations, and floating exchange rates have disrupted the political compromises underlying this scheme. In the Common Agricultural Policy, common prices were set in terms of the "unit of account" (equal to U.S. \$1), with prices in each country obtained by converting common prices into domestic currency at the par exchange rate. The initial set of prices was agreed to after a long, hard series of negotiations among the Six, in which each country's problems and special interests were taken into account. Once this delicate political balance was struck, it was understood that no member could unilaterally change its agricultural prices, although the common prices in dollars were subject to change by the Council of Ministers. If a member changes the par value of its currency, however, it automatically changes its domestic agricultural prices, given unchanged *dollar* prices.

The first such instance occurred in August 1969, when France devalued the franc by 11.1 per cent. With dollar prices unchanged, the new franc parity implied a proportionate rise in the franc prices of agricultural products. France disliked this outcome because it would increase the cost of living in France (and thus offset the favorable effect of the devaluation), and other members disliked it because it would favor French farmers and encourage them to expand production. For example, the common price of soft wheat (\$106.25 per metric ton) had been a hard-fought compromise, especially between France and Germany; it had entailed a fall in the German price and a rise in the French price. German output declined as small, high-cost farmers were squeezed out, while French output expanded. The franc devaluation upset the compromise, and the Council of Ministers had to achieve a new one. It was that France would increase the franc price of wheat in two stages over a two-year period and, in the interim, was required to levy border taxes on wheat exported to other members and to subsidize imports from other members. This solution involved not only a departure from common prices but also a temporary nullification of one of the primary purposes of the French devaluation—to improve the trade balance by increasing exports and reducing imports.

In September 1969, Germany allowed the DM to float briefly and

then revalued it by 9.3 per cent. During the float, Germany levied border taxes on imports and subsidies on exports, but these were opposed by other member nations. When the new parity was set, German agricultural prices in DM were reduced proportionately, and Germany made lump-sum compensation payments to its farmers. The long-run effect, however, was to weaken still further the competitive position of German agriculture. Taken together, the franc devaluation and DM revaluation comprised a major alteration in the accord on agricultural prices that was negotiated in December 1964.

In May 1971, when the DM was again allowed to float, Germany did not change its intervention prices but levied taxes on imports and gave subsidies on exports to offset the effect of the rising value of the DM. This meant, in effect, a suspension of the common market in agricultural products as far as Germany was concerned, and the suspension became general after August 15, 1971, when all Community currencies changed in value relative to the U.S. dollar. Compensatory taxes and subsidies have been the principal device used to offset the effect of exchange-rate changes, and most agricultural products are now subject to a complex system of border controls, instead of flowing freely within the Community. Practical problems have been numerous, such as the difficulties traders face when exchange rates change daily but the levels of compensatory taxes and subsidies are fixed weekly or at other intervals by each member country.

A primary objective of the Common Agricultural Policy was to prevent deliberate alterations in the conditions of competition by individual member countries. Producers in all countries were supposed to adjust to the common prices that were set jointly. Currency devaluation, which alters prices to domestic producers in the devaluing country, alters the agreed terms of competition. Even when exchange rates are allowed to float, there is a suspicion that governments may manipulate them to seek an advantage, because the float can never be completely "clean."

Similar problems arise with other aspects of the Common Market, and we conclude that, whether exchange rates are changed intermittently, via the IMF adjustable-parity method, or allowed to fluctuate more freely, the result will be a retreat from the degree of economic integration achieved so far. The choice Europe faces is between (a) further steps toward economic integration, including monetary union, and (b) a retreat from economic integration and toward the separation of national economies, through either exchange-rate flexibility or restrictions on trade and payments.

This choice is basically political. The political judgment, however, will turn in large part on the economic feasibility of monetary integration. Will it impose unacceptably heavy costs and burdens, or will the member

nations still retain policy tools that enable them to achieve a satisfactory level of domestic economic activity?

The Meaning of Monetary Integration

The Werner Report states that "a monetary union implies inside its boundaries the total and irreversible convertibility of currencies, the elimination of margins of fluctuation in exchange rates, the irrevocable fixing of parity rates and the complete liberation of movements of capital" (p. 10). This definition was incorporated in the Resolution of the Council of Ministers and listed as an objective to be achieved within ten years (from January 1, 1971), by which time the Community ". . . shall constitute a zone within which persons, goods, services and capital will move freely and without distortion of competition"

The Werner Report also calls for harmonization of fiscal policies, but in this essay we shall draw a distinction between monetary and fiscal integration. Although harmonization of some taxes may be necessary to avoid distortions of competition, we shall assume that member nations retain a considerable degree of fiscal autonomy. They can finance their activities, when necessary, through competitive access to Community capital markets. Much of what the Werner Report calls "regional policy" and assigns to the Community government can be undertaken by an individual nation at its own initiative, as will be discussed below. Consequently, the Werner Report implies a considerably larger degree of political integration than does the present essay.

Monetary integration does require the unification and joint management of both monetary policy and external exchange-rate policy. The Werner Report does not provide a detailed plan to accomplish this unification, but it does contain some suggestions from which a general idea of the Committee's intent may be surmised. Power to determine monetary policy for the European Community must be centralized, leaving the individual central banks in a position somewhat similar to that of the individual Federal Reserve Banks in the United States. A Committee of Central Bank Governors might be given the authority to set monetary policy. The rate of increase in the money supply would be decided jointly, and individual central banks would have to abide by that decision. The *mechanism* of credit expansion could itself be centralized, or it could remain in the individual central banks. That is, once the Community decision-making body has decided how much credit expansion to aim for, each central bank could be allocated a share, thus distributing the seigniorage. Beyond that agreed amount of credit expansion, a national government would have to finance any budget deficit in the Community capital market at the going rate of interest.

Such a unified monetary policy would remove one of the main reasons for disparate movements in members' price levels, and for intra-Community payments imbalances. Some variations in the rates of change in prices could still exist, however, just as they do among regions of the United States.

Under monetary integration, the balance of payments of the entire Community with the outside world must also be regulated at the Community level. A single member nation, indeed, may no longer be able even to compute its individual balance of payments with the outside world. (Who knows what part of the U.S. deficit is accounted for by the Southeastern states, the Boston Federal Reserve district, or California?)

It follows that the European Community must have a common pool of exchange reserves and that exchange rates with outside currencies must be regulated on a Community-wide basis. Member nations could agree, for example, to turn over prescribed amounts of their gold and foreign-exchange reserves to a Community reserve fund that would be charged with management of exchange-rate policy. If the exchange rate between Community currencies ("Europa," for short) and the U.S. dollar were pegged, the manager of the Community Reserve Fund could be made responsible for maintaining the rate within the authorized margins. Decisions to change the par value of the Europa or to adopt some form of flexible exchange-rate system would have to be made jointly.

If the dollar-Europa rate were pegged, but capable of change, all the problems of uncertainty, speculation, reserve adequacy, and threats of massive hot-money movements would remain. Reserves could scarcely be large enough to protect against a serious crisis of confidence and hot-money movements on a massive scale, and exchange controls would be difficult to administer. Consequently, the dollar-Europa exchange rate might instead be left to float. This would impair somewhat the effectiveness of the Eurodollar market as a lubricant for European capital-market integration and would keep alive some dangers of speculation, but it would provide a measure of flexibility between these two currency blocs.

Another alternative, though perhaps not a practical one, would be to include the dollar in the irrevocable fixing of exchange rates. If the dollar could also be permanently fixed in value relative to European currencies, the scope and influence of equilibrating capital movements would be greatly increased and the problems of reserve adequacy and hot-money movements greatly diminished.

Such an Atlantic monetary pact seems politically improbable for the near future. It would require the formulation of an Atlantic monetary

policy, perhaps through an Atlantic open-market committee, as has already been suggested by Kindleberger and others. Europe and the United States may nevertheless find a strong common interest in stable exchange rates within the Atlantic community, leading them to adopt policies and forms of cooperation that will make fixed exchange rates possible. In this way, a *de facto* Atlantic monetary integration may emerge, even though formal agreement is not reached. The key question is whether Europe and the United States can agree on monetary policy.

The choice of an exchange-rate regime for the European Community *vis-à-vis* the U.S. dollar and other outside currencies involves many issues in the great debate about reform of the international monetary system—fixed vs. flexible exchange rates, reserve adequacy, etc. These issues lie beyond the scope of this essay, but, however they are settled, monetary integration implies that the European Community must act as a unit and must adopt a common policy.

While such unification of monetary and exchange-rate policies may seem to be a drastic infringement of national sovereignty, nations are in fact already limited in their scope for central-bank creation of credit, and they would be limited even under a system of flexible exchange rates if they wished to avoid repeated currency depreciations. Furthermore, member countries have accepted, in principle and increasingly in practice, a great deal of coordination, compulsory prior consultation about economic policy, “concertation” of specific actions and policies, and other measures that constrain national autonomy. Nations may possess as much real economic autonomy—ability to influence the behavior of real economic variables within their borders—under monetary integration as they did *de facto* under the system that existed from 1945 to 1972, especially if we assume closely integrated markets for goods, services, and capital. Monetary union may be accompanied by a transfer of fiscal authority from national governments to the Community government, but this is in large measure a matter of political choice. (Until the 1930’s the fiscal weight of the federal government in the United States was small in comparison to that of the states, except in wartime.) Member nations in the European Community may, similarly, retain control over the bulk of their fiscal revenues and expenditures. Given their power to tax and spend, and given the opportunity to borrow in Community capital markets, they can exert significant economic influence through fiscal measures. In a centralized Community, these actions would be classified as regional policy, as they are in the Werner Report, but in a loose federal system much initiative and autonomy can remain with the individual member nation.

In this essay we shall be primarily concerned with the internal opera-

tion of the Community and with intra-Community mechanisms of adjustment, on the assumption that full and complete monetary union, as defined above, actually exists. Whether nations will be willing to accept such a union is a political question, but economists should at least discuss adjustment processes and economic feasibility on the assumption that they *are* willing. If economists dismiss integration on the grounds that nations will not accept it, they are making a political, not an economic, judgment. Economists may also be able to say something about the division of economic-policy functions between the Community and the several national governments, particularly the extent to which national autonomy can be preserved.

The Transition to Monetary Integration

Some of the most difficult practical problems will concern the process of transition to full monetary integration. The debate between "monetarists" and "economists" about strategy and the timing of further steps toward monetary union has dealt largely with this interim stage. "Monetarists" argue that positive steps toward monetary integration would strengthen and accelerate the process of economic integration. Such steps would force member nations to coordinate their economic and financial policies, thus reducing disparities in wage and price trends and making exchange-rate rigidity easier to achieve. "Economists" argue that policy harmonization and real economic integration must come first, and that further steps toward monetary integration should not be taken until wage and price changes have in fact converged and structural adaptations in response to intra-Community free trade been completed. Only then, they say, would monetary integration be feasible.

A related point concerns the appropriateness of existing exchange rates. When member nations remove their present barriers to capital movements and dismantle remaining obstacles to the free flow of goods and services, they may find that the existing exchange rates are not equilibrium rates. Premature attempts to fix exchange rates irrevocably might therefore impede the subsequent liberalization of trade and capital markets, because nations would find it necessary to retain controls in order to maintain the prematurely fixed exchange rates. The trend toward liberalization of capital movements has been reversed in 1971 and 1972, as European nations have restored exchange controls in an effort to control speculative capital flows and maintain their new central rates of exchange.

It is argued contrarily that, as capital transactions become freer while exchange rates remain pegged but adjustable, rumors of a parity change can lead to massive speculative capital flows that could force exchange-rate changes in the anticipated direction. Official exchange reserves can

never be large enough to cope with the flows that could occur in a closely integrated economy if such rumors gained credence. The solution, say the monetarists, is to fix exchange rates irrevocably and thus remove the motive for such speculative capital movements. At some point, member nations may have to make a bold "dash to irrevocability," rather than to approach it by a series of small steps.

These and other issues involving the transition period raise important and difficult problems, but they are not the main focus of this essay. Our primary purpose is to consider the operation of the European Community on the assumption that full monetary integration does in fact exist.

The Adjustment Process in the Short Run

Differences of opinion about the process of adjustment to various types of disturbance are at the heart of the matter in the debate about monetary integration. Opponents and skeptics believe that full monetary union requires the surrender of vital aspects of national sovereignty, the loss of which will expose the nation to painful adjustments and hardships when disturbances appear and must be corrected. These burdens are the more unacceptable because they are believed to be avoidable under a different monetary regime. Proponents believe that the fundamental adjustments are essentially the same in any system, and that monetary integration, by removing uncertainties about exchange rates and firmly connecting the goods and capital markets in member nations, will best promote an efficient allocation of resources within the entire union. Furthermore, currency unification encourages capital and labor movements that not only improve resource allocation but also themselves comprise a part of the adjustment process. Exchange-rate changes, on the other hand, tend to hold factors of production where they are, thus forcing the real adjustment to take other forms.

With full monetary integration as defined above, payments imbalances among member nations can be financed in the short run through the financial markets, without need for interventions by a monetary authority. Intracommunity payments become analogous to interregional payments within a single country.

Once the public in general and financial markets in particular are completely convinced that exchange rates are permanently fixed, one result is that government securities similar in coupon interest rate, face value, and maturity will be approximately equal in value when converted at the fixed exchange rates. (Some interest-rate differentials may exist, however, just as they do between bond issues of state governments in the United States or, a fortiori, between various types of

“localized claims” in different regions of a country.) It follows that a Community-wide structure of interest rates will exist; no country can have an interest-rate structure that differs appreciably from this Community norm.

To make credible a system of irrevocably fixed exchange rates, moreover, member governments might formally declare every currency legal tender in every country. They might also require commercial banks to pay all checks at par in any Community currency requested by the payee, and allow them to accept deposits denominated in any currency. Commercial banks would be allowed to count as reserves the cash balances they hold in the currencies of other member countries. These measures would encourage the intermingling of financial assets in banks and other financial institutions and would facilitate the intra-Community clearing and adjustment process.

The operation of the clearing process may require a brief description. If a member nation, say France, experiences an outflow of funds, French banks will have adverse clearing balances but can cover them by selling readily marketable securities (especially treasury bills and high-quality commercial paper) in Community capital markets, or perhaps in the Eurocurrency market. The proceeds of such sales can be transferred to banks in the nation, say Germany, with favorable clearing balances. German banks, in turn, may hold increased Eurocurrency balances, but they are more likely to convert these balances into short-term assets, in which case the Eurocurrency market (or Community capital market) merely provides a clearing facility and not a *net* supply of (or demand for) funds.

In “T-account” form, such a transaction might appear as follows (assume DM 1 = Fr. 1.5):

German Commercial Banks

<i>Assets</i>	<i>Liabilities</i>
Balance in Eurocurrencies (1) DM +100 (correspondent account) (2) DM -100	Demand deposits (1) DM +100
Short-term assets (2) DM +100 (Treasury bills, etc.)	

French Commercial Banks

<i>Assets</i>	<i>Liabilities</i>
Balance in Eurocurrencies (1) Fr. -150 (correspondent account) (2) Fr. +150	Demand deposits (1) Fr. -150
Short-term assets (2) Fr. -150 (Treasury bills, etc.)	

Transaction (1) records the fact that German banks have received for deposit checks drawn on French banks. They initially use these checks to increase their claims (acquire deposits) in Eurocurrency form, but in transaction (2) they shift these funds into money-market assets. The net effect is that German banks' short-term assets rise to match the rise in their deposit liabilities. For French banks, transaction (1) records the fact that depositors have drawn down their balances, causing adverse clearings, which are covered, in transaction (2), by the sale of short-term assets.

The flow of funds from France to Germany can be accomplished through a variety of payment "circuits," but the detailed variations are not important. The key point is that, in the very short run, monetary integration makes it possible for large intra-Community transfers to occur easily and without attendant pressures on official exchange reserves. With complete freedom for capital transactions and permanently rigid exchange rates, securities of comparable quality and maturity will sell at identical prices and yields throughout the Community, regardless of the currency of denomination. Very small changes in yield structure in one country will be sufficient to induce a large inflow of capital. In short, the elasticity of demand for internationally acceptable securities will be very large, approaching infinity. Other sectors of the economy of the "deficit" nation besides commercial banks may also participate in this short-run response. If local banks curtail loans rather than sell securities, firms may borrow from Community sources, or mortgage companies may sell existing mortgages in a secondary market at the Community level, thus attracting inflows of funds from the rest of the Community.

Intra-Community payments become analogous to interregional payments within a monetary union such as the United States. If \$500 million is transferred from Michigan to California, Michigan banks can accomplish the transfer by selling short-term securities in the New York money market, turning over the proceeds to California banks, who may first utilize these funds to acquire short-term securities in the New York money market. The clearing facilities provided by the Federal Reserve System may be utilized in this transfer process, but those facilities perform only a service function. (Through their rediscount operations, Federal Reserve banks can help to supply funds to banks in regions with adverse clearing balances, but such operations have not in fact been very important, partly because of a strong tradition limiting the use of this method, but especially because the alternative of direct access to capital markets exists and is preferred by commercial banks.) The federal-funds market also helps to accomplish interregional

transfers, and a similar function may be performed in Europe by the Eurocurrency market.

Intra-Community transfers may eventually be even easier to effect in Europe than in the United States, because a more extensive development of branch banking may occur. In the United States, the preference for unit banks and restrictions on branch banking across state lines make it necessary to rely on an indirect market mechanism to accomplish the transfer of funds. Within each member nation of the European Community, branch banking is already well developed, and a few efforts have been made to form consortia to link these networks together. If that were done more widely, a transfer of funds from France to Germany could be effected simply by accounting transfers within the bank.

An important point to emphasize at this stage is that payments imbalances do not necessarily require central-bank intervention to "support" the exchange rate. No pressure need converge on the "foreign-exchange reserves" of a member nation when it has a payments imbalance with other members of the Community. Instead, the nation's entire stock of financial assets becomes a kind of external reserve asset. Part of this stock is sold in Community capital markets to provide cover for the initial adverse payments balance. And if these sales cover the balance completely, they eliminate the foreign-exchange market as the focus for intra-Community clearings. A kind of security arbitrage takes the place, in whole or in part, of official financing.

These institutional arrangements and practices confer a major benefit on the Community: relief from short-run payments crises leading to massive speculative attacks on a particular currency and requiring official intervention to defend and support the currency. (We are referring here only to intra-Community payments.) The basic source of such speculative attacks, or "runs" on a currency, lies in the risk of exchange-rate change. If doubts arise about the exchange parity of the franc, people will try to liquidate franc-denominated securities and then to convert the proceeds (franc deposits and currency) into another currency, say D-Marks. Since the amount of such financial assets in any nation far exceeds the amount of its foreign-exchange reserves, a nation can never protect itself against a real crisis of confidence except through extensive exchange controls—by suspending convertibility. Conventional measures of credit contraction offer little help once a crisis has struck. If, instead, the permanent rigidity of exchange rates is made credible to the market, as it must be in full monetary integration, no basis exists for a flight from a particular currency. If France develops an adverse payments balance, franc-denominated securities may be sold

for liquid funds, but the prices of these securities cannot drop below those of similar securities in other currencies, except marginally. Since francs are "as good as" D-Marks, or any other Community currency, liquid funds will be held in the most convenient form. There is no reason for "hot money" movements from one Community currency to another. Exchange-rate rigidity not only eliminates the threat of disruptive and capricious "hot money" movements but also causes portfolio capital movements to perform an equilibrating role.

To achieve such a smooth and easy intra-Community payments mechanism, the prime requisite is complete confidence in the permanent rigidity of exchange rates, but other institutional characteristics may also be mentioned. I have argued elsewhere (Ingram, 1959 and 1962) the useful role of a large stock of easily marketable, internationally acceptable financial instruments. Well-organized and efficient capital markets should also exist, and efforts should be made to standardize procedures for capital-market transactions and to remove any obstacles of custom or law that prevent the easy flow of funds through capital markets.

European Community nations appear to possess most of the institutional requirements for an efficient intra-Community payments mechanism, or, if not, they are capable of creating them. In recent years, several developments have increased the degree of financial integration. These include the emergence of a Community-wide bond market (described by Krause, forthcoming); rapid progress of the Eurocurrency market; increasing collaboration among European commercial banks, partly stimulated by the initiative of U.S. banks in setting up branches and joint ventures; growth of Community-wide industrial firms with plants in several member countries; and an increasing degree of interpenetration of capital markets, reaching into financial institutions at several levels and even into the portfolios of individuals in member countries.

These developments, evolutionary in nature, are a natural accompaniment to the formation of a common market in goods, services, and capital. The momentum is toward an ever-closer union, and toward a reduction in the "separateness" of national economies. It becomes less easy to think of "us" and "them" within the Community, and inappropriate to speak of "our" price level as distinct from "their" price level. If member nations resist this momentum and try to preserve traditional forms of national autonomy, particularly in monetary policy, they will find that even the present degree of economic integration has made them vulnerable to disruptive capital flight and crises of confidence. They must make a choice—either to encourage the trend toward a fully integrated economy in order to function like one, or to reverse

this trend and move toward a greater separation of their economies in order to preserve these traditional forms of autonomy.

In an integrated Community, the traditional concept of a deficit or surplus in a member nation's balance of payments becomes blurred. The lack of clarity is not simply a result of the greater difficulty of compiling statistics; it is also a conceptual problem. The distinction between autonomous and accommodating transactions, a difficult one at best, tends to fade away. Capital movements, occurring partly in response to marginal interest-rate differentials, involve a wide range of financial institutions participating for a variety of motives. On a net basis in a given period, these capital transactions will have financed the current-account deficit, *ex post*, but that is just an arithmetical result of the definitions used. Most of the capital transactions originate in the private sector, at least on one side of the transaction, and it is not possible to classify them as autonomous or accommodating, or to obtain a measure of the imbalance that exists, if any. Focus on changes in official exchange reserves does not help, since these changes may be relatively unimportant and insignificant in intra-Community payments. Furthermore, it is not easy to define a concept of exchange reserves that is relevant to a member nation's transactions with the rest of a monetary union.

The difficulties encountered in defining the balance-of-payments deficit of the United States are well known. Many economists have despaired of solving the problem and have recommended that no such overall payments balance be calculated, at least officially. Within a monetary union, the difficulties of definition are even greater, as is clear to anyone who has attempted to estimate the capital accounts in the balance of payments of a state or region in the United States. These difficulties are already beginning to plague member nations in the European Community. Shifts of corporate funds from Italy to France, from Belgium to Germany, or in and out of the Eurodollar market may have little or no economic significance. But they may appear as major imbalances from the conventional viewpoint, and, worse still, they may set off speculative attacks on one currency or another. If U.S. corporations shift cash balances from New York banks to St. Louis or Atlanta banks, no one expects an adjustment process to take place, involving real income, relative prices, and employment—at least not in response to that financial transfer alone. European financial institutions should be able to accomplish such transfers without any more difficulty than is encountered in the United States.

So far we have been concerned primarily with the very short-run financing of a payments imbalance, but we should now go on to some other aspects of the adjustment process that are usually labeled short-

run. The real issues lie in these other aspects, such as price, income, and employment effects, and in the long run.

Suppose a member nation, say Belgium, initially in internal and external balance, experiences a fall in exports to other members, perhaps because of a change in tastes, or because a competing supplier has reduced his costs and prices. The immediate effect of the drop in exports will be adverse clearing balances against Belgium. As we have seen, these will be covered initially by the sale of financial assets by Belgian banks in Community capital markets. This sale, and the resulting capital inflow, is in a sense an involuntary or accommodating transaction. The Belgian money supply will fall by the amount of the adverse clearing balance, but there need be no multiple contraction of the money supply through the leverage of fractional exchange reserves and fractional bank reserves. This case is different from the usual fixed-exchange-rate case. It is analogous to that of 100 per cent reserves. Belgian income will fall by a multiple of the initial decline in exports, but the income multiplier will tend to be low (perhaps unity or less) because of the openness of the economy (reflected in a high marginal propensity to import) and because some offsetting increases in exports may occur when income rises in the member nation whose exports initially rose. To the extent that income does fall in Belgium, some downward pressure on prices will occur, but little if any actual decline in money prices or wages can be expected. Interest rates will not rise above Community-wide levels, except marginally, and no special downward pressure will be exerted on domestic capital outlays. Because no general deflationary pressures will need to be exerted on the economy, unemployment will tend to be concentrated in the localities in which the affected export industry is found.

Such local and regional economic problems may be approached in several ways, though not with any certainty of success. First, capital, labor, and other resources released by the decline in exports may have alternative uses, and thus may be drawn into other Belgian industries whose output is expanding. Second, the presence of unemployed labor may attract new investment from other parts of the Community. Net investment will be taking place and, given a single unified market, new facilities can be located anywhere in the Community—wherever entrepreneurs find the least-cost combination of resources. Availability of skilled labor can be a strong inducement to new investment. Third, if unemployment persists, out-migration can occur. Workers can move to expanding sectors in Belgium, or even in other member nations. Fourth, member nations can use fiscal policy to stimulate and encourage any one of these responses. The Belgian government can expand public

investment in the affected region, thus utilizing idle labor, counteracting the decline in income, and improving the economic potential of the region. Such public investments should be designed to expand the productive capacity of the region, either directly, or indirectly by conferring external economies onto the private sector. In addition to investments in social-overhead facilities, the Belgian government could establish programs to retrain labor or to provide incentives to attract private investment into the region. On the other hand, if prospects for the depressed region seem poor, government could provide relocation allowances for workers and in other ways facilitate the transfer of resources to more promising locations.

We are here involved with the large question of regional economic policy, and we obviously cannot discuss all the alternatives and issues in detail. The principal point to be made is that governments of member nations will still have fiscal authority to carry out policies to facilitate corrective adjustments when balance-of-payments pressures take the form of regional economic problems. Furthermore, with capital markets closely linked through monetary integration, a government can finance such regional programs by issuing bonds in Community capital markets. Such induced capital inflows will help to finance the current-account deficit and offset the adverse clearing balance resulting from the initial drop in exports, thus providing time for real adjustments to take place. This voluntary borrowing is undertaken for specific purposes and is different in motivation from the involuntary borrowing that occurs when banks sell short-term assets to cover adverse clearing balances.

This policy combination can be interpreted as a form of the well-known Meade-Mundell "mix" of monetary and fiscal policy, with monetary policy "assigned" to maintain external balance and fiscal policy "assigned" to maintain internal balance. Under monetary integration, as already described, a member nation cannot pursue an independent monetary policy, separate from the Community-wide policy, but it *can* take fiscal action to stimulate investment in a given region as long as it can finance any budget deficit in Community capital markets at market rates of interest. More generally, a member nation can use fiscal measures to stimulate aggregate demand and to combat unemployment, whether concentrated in specific regions or not.

The use of fiscal policy to achieve internal balance provides no panacea, but it focuses attention on the real problems. Public expenditures made possible by bond issues in Community capital markets should be used to finance investments that will increase the productive capacity of the region and nation, *not* just to maintain consumption levels. To finance unemployment compensation or other income-maintenance programs by

external borrowing would be asking for trouble! The necessity to select, plan, and carry out productive public investments will place heavy demands on government. The task may prove so difficult that governments will use much of their fiscal leverage to stimulate private investment rather than to undertake public investment projects, but at least monetary integration enables government to attack the real problems directly and also to face explicitly the costs (interest on money borrowed) involved.

As these fiscal-policy measures are carried out, the economy will tend to move back into internal balance. The rise in productive capacity will tend to increase exports (or decrease imports) and thus restore current-account balance. Consequently, the need for a government to borrow in Community capital markets will decline and may eventually come to an end. However, there is no guarantee that internal and external balance will be reached with zero capital movements. The great diversity in circumstances of member nations and constantly changing conditions over time make it likely that certain member nations may be chronic borrowers in Community capital markets. However, this is no cause for alarm if the funds are being wisely used. The net debt of many U.S. states has been rising steadily for fifty years, yet their credit ratings remain satisfactory and the ratios of debt to total wealth, or debt service to current income, have not deteriorated. The Commonwealth of Puerto Rico, which is part of the U.S. "monetary union," has borrowed steadily in the New York market since 1948, either directly or through public corporations, and has financed roads, schools, waterworks, electric power, and other facilities through its external bond issues. It has vigorously used fiscal tools to encourage economic development. By 1971, external public debt per capita was over \$400, but the Commonwealth financial position remained sound. Because these public investments improved the prospects for private profit, they also stimulated an inflow of private capital.

Critics of monetary union often begin, not with a drop in exports as in the example just discussed, but with a rise in money wages and other costs in one member nation. The argument runs in the following way: "Suppose the general level of money wages and prices rises in France relative to other members . . .," or "suppose French labor demands a higher rate of increase in wages than is sustainable from productivity growth. . .," then, it is argued, fixed exchange rates will result in the "enforced departures from internal balance" that Corden (1972) emphasizes. Rising costs and prices in France will make French products less competitive, thus causing an adverse swing in the trade balance and producing a balance-of-payments problem. Efforts to main-

tain aggregate demand will just aggravate the payments pressures. No inducement exists for an inflow of private capital for productive investment, while government borrowing to maintain consumption levels can be only a short-run solution, as the ratio of debt to income or wealth will steadily rise. Eventually, unemployment must rise unless the exchange rate can be changed to make French products competitive.

Two principal points should be made about this "case." First, on the demand side, no basis exists (under conditions of monetary integration) for the initial premise—namely, that money costs and prices rise faster in one member nation than in the rest of the Community. Nations that are members of a union would no longer try to act as if they had autonomy in monetary policy. That is, France would not be increasing its money supply by central-bank creation of credit, while any budgetary deficits would be financed by bond issues priced to be competitive in Community capital markets. If such deficits led to upward pressure on French prices, the resulting adverse trade balance, which would be covered by a capital inflow, would itself tend to restrain the inflationary pressure. On the other hand, if an investment boom were under way in France, putting upward pressure on prices and wages, that would indicate that costs of production *were* competitive and the profit outlook favorable, a state of affairs contradictory to the premise. Consequently, there is no basis for the initial assumption that the general level of wages and prices in one member nation rises and becomes seriously out of line.

The second point concerns the supply side—the case of cost-push inflation. It is always possible that a labor union in a particular industry or city might demand a wage increase larger than warranted by the increase in productivity. If the union had enough power to enforce its demands, firms producing tradable output would have to curtail output and lay off workers, while rising costs of nontraded goods and services (e.g., maintenance of buildings) would adversely affect the competitive position of that city or region. For example, if electricians in New York City can enforce a \$15 per hour wage when average wages of electricians elsewhere in the United States are \$4 per hour, New York's competitive position will deteriorate somewhat, and markets will adjust to this artificially high wage rate in a number of ways, including reduced employment of electricians. Some corporate offices may decide to move out of New York, or not to locate there in the first place. However, this is a problem of wage negotiation in a particular industry, and no general payments pressures need arise. In any case, ability to change its exchange rate with the rest of the United States would not be much help to New York in its efforts to deal with this

problem. Similarly, individual firms may be forced out of business by excessive wage demands.

A more serious issue on the supply side concerns the possibility that widespread wage pressures may develop in one member nation. If the population is really determined to force up their real incomes at a markedly faster rate than productivity is increasing, there is no hope of internal and external balance under *any* system. Critics of the fixed-exchange-rate feature of monetary integration often present this case, and then imply that flexible exchange rates offer a solution. When wages and prices get out of line, they say, the currency will depreciate in the exchange market, thus maintaining competitiveness in world markets for the nation's exports. While it is true that external balance can be maintained, the argument rests squarely on "money illusion" on the domestic side. When wages are forced up in an effort to increase real income, an adverse trade balance develops. Currency depreciation corrects the external imbalance by reducing imports, increasing exports, and, given full employment, preventing the desired rise in domestic "absorption"—i.e., the amount of real goods and services available for the domestic population. In short, exchange depreciation substantially counteracts the success that may have attended the initial effort to *increase* real incomes. If the various groups demanding higher real incomes are satisfied with an increase in *money* income even though it is quickly offset by rising prices, leaving *real* income about the same, then "money illusion" exists and exchange depreciation can work. However, this assumption seems tenable only in the short run. Over a lengthy period, it seems likely that any group capable of an organized demand for higher income would recognize that rising prices were offsetting the gains made in money income. Renewed demands for still higher money incomes would then force further exchange-rate depreciation, which would cause further price increases, etc. If government checks this spiral by tighter monetary and fiscal policy, then it must thwart the demands for increased income (contradicting the initial premise) and it must tolerate some unemployment as well. In that case, the economy will suffer the "enforced departure from internal balance" that it was trying to avoid through currency depreciation.

In his essay, Corden (1972) states and agrees with this analysis, but he explicitly assumes that money illusion exists in member nations of the European Community, and thus he concludes that exchange-rate flexibility provides a solution in the case under discussion. However, he does not say whether he is taking a short-run or a long-run view of the matter.

In my opinion, money illusion will be weak in an economic union

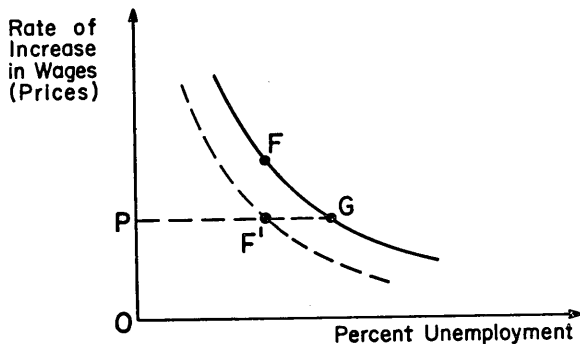
that has free trade, a common level of agricultural prices, and free movement of capital and labor. It will be extremely weak in the long run. Thus I conclude that exchange-rate flexibility will not enable nations to avoid losses arising from departure from internal balance. In fact, it seems to me that monetary integration, by harnessing the powerful corrective force of capital movements, provides a much surer and more effective mechanism for achieving optimal utilization of economic resources, especially in the long run, than does the flexible-exchange-rate system.

The issue finally turns on a question of fact—the extent to which money illusion exists in the European Community now and will exist in the near future. People obviously differ in their opinions or estimates on this matter; hence it is important to find some objective measure. So far, none exists.

It may be useful to state the relationship of the foregoing discussion to the Phillips-curve concept. We will assume that each nation has a Phillips curve that shows the rates of change in wages (and prices) that will occur at various rates of unemployment. The relationship is generally believed to be inverse, i.e., the lower the rate of unemployment, the higher the rate of increase in wages and prices. Each nation may choose the combination of wage (and price) increase and unemployment level that it prefers. If member nations prefer different combinations, resulting in divergent trends in price levels, exchange-rate adjustments are necessary to preserve external balance. So runs one argument against monetary integration.

Under monetary integration, however, the rate of credit expansion would be equalized in all member nations, and common prices for tradable goods would exist. Consequently, the rate of wage (and price) increase would be given for the entire Community. A single nation could no longer choose for itself a rate of change in wages (and prices) that differed much from the rest of the Community. Despite this constraint on its choice of the rate of price change, different preferences for unemployment rates could still be accommodated through recourse to the Community capital market. If France preferred a lower rate of unemployment than would normally occur at the Community-wide rate of price increase, it could finance employment-increasing activities by issuing securities in Community capital markets. In the accompanying figure, France originally prefers the combination indicated by point *F* on its Phillips curve (solid line). With monetary integration, the rate of price increase will be limited to *P*, the Community-wide rate, which will tend to produce a higher level of unemployment than France wants—that indicated by point *G*. When France combats unemployment by

undertaking employment-increasing activities, financed in the Community capital market, the effect is to shift the Phillips curve to the left (dotted line), permitting France to reach the point F' at which it achieves the desired level of unemployment. In the usual formulation of the Phillips curve, which is based (explicitly or implicitly) on closed-economy assumptions, fiscal expansion simply causes a movement along the curve. Fiscal measures taken to increase aggregate demand tend to drive up wages and prices but do not shift the curve itself. In the



present case, however, fiscal expansion is accompanied by an increase in real resources as the government finances its increased outlays in Community capital markets, and a transfer of real capital (rise in imports of goods and services) takes place. Prices and wages do not rise as aggregate demand increases because prices are set in Community-wide markets, but a larger number of workers can be employed at existing wage rates as jobs become available through fiscal expansion. This change may be represented by a leftward shift of the Phillips curve, as shown in the figure.

To avoid the problem of an ever-increasing burden of external debt, it is essential that government use the borrowed funds productively. By increasing the rate of capital accumulation, accelerating technical progress, and improving labor skills, the rate of growth in labor productivity can be increased, thus providing a longer-run corrective for the initial disequilibrium. The social cost of reducing unemployment takes the form of interest on borrowed capital.

Many economists are skeptical about the theoretical underpinnings of the Phillips curve. The analytical difficulties become even more acute when capital is mobile and economic integration exists. It is difficult to specify the determinants of the Phillips curve under these conditions. However, even if we drop the formal concept, it seems plausible to

argue that a nation or region with an uncomfortably high rate of unemployment could use fiscal expansion to alleviate it. The inflationary impact is prevented by common prices in the entire Community, and, if the borrowed funds are used for productive purposes, the ratio of external debt to real wealth need not rise.

The Adjustment Process in the Long Run

One cannot state an exact sequence for an adjustment process in the long run because so much will depend upon the way in which economic growth proceeds and economic developments unfold in member nations and in the world. However, we can suggest several elements which may play a role in long-run adjustment, depending on circumstances.

Capital mobility. We have seen that, given Community price levels, fixed exchange rates, and other conditions, a member nation with a tendency toward unemployment may use fiscal policy to achieve internal balance. By financing deficit expenditures at competitive interest rates, a capital inflow is generated to cover a current-account deficit.

Critics of monetary integration may agree that capital inflow can serve as a short-run palliative, but they usually argue that it cannot continue in the long run because the deficit nation cannot borrow indefinitely. However, critics generally assume that the proceeds of external borrowing are used for unproductive purposes—for example, to maintain consumption levels for unemployed persons. In that case, the rising level of external public debt would mean a rising ratio of debt to wealth and a rising relative burden of debt service, both of which would weaken the financial standing of the borrowing government. But, as emphasized above, the borrowed funds should instead be used to finance productive investment, public or private, which will increase the productive capacity and wealth of the member nation. In this case, there is no fixed limit to the level of external debt. It is possible that a given nation might be a net borrower for a very long period of time, yet its ratio of debt to wealth and the relative burden of debt service might even be declining. Such capital flows may also be limited because of the requirements of portfolio balance in the lending country, but this may not be a serious problem in the long run if total wealth is increasing.

That is not to say that bonds can be issued in external capital markets to support indefinitely levels of real wages and other factor incomes higher than warranted by productivity. Corden (1972, p. 30) seems to impute this view to advocates of monetary union, but such a position is merely a straw man, since *no* system can provide equilibrium in that situation. The point is simply that, with prudent fiscal management, a member nation, like a firm, city, or other entity, can conceivably engage

in deficit financing at market rates of interest in the long run. It can undertake productive investments, improve its competitive position, and thus provide a basis for the restoration of internal balance. The smooth functioning of the short-run payments mechanism frees government to focus on these basic long-run measures.

Capital inflow is not limited to that induced by public borrowing. The tendency toward tighter money will cause marginally higher interest rates in the deficit country, which will induce private financial institutions to sell some financial assets in Community capital markets. Furthermore, the tendency toward unemployment may cause wages and prices to rise more slowly than in other member countries, thus achieving, through time, the adjustment needed in relative wages and prices to improve the trade balance. The deficit country may become an increasingly attractive place to locate new plants, thus inducing an inflow of direct investment. This last point is very uncertain, as many factors are involved and the outcome could go either way. One can argue that private capital is unlikely to be attracted to a depressed area, where demand is declining and profit prospects seem bleak, as in Appalachia in the United States or the Massif Central in France. On the other hand, the relevant demand *is* that in the entire Common Market, and local and regional governments can do much to "promote" private investment, à la Puerto Rico and the regional development efforts in several nations. When textile firms moved out of New England, the resulting pool of available, educated labor attracted a number of firms to that region, and in the long run the change in industrial structure made for a healthier New England economy. But other examples can be given in which a decline in the traditional industry of a region was not offset by the rise of a new one.

Labor mobility. If the scope for productive investment is limited in a particular region or nation, so that it lags behind other parts of the Community and faces chronic unemployment pressure, then labor will tend to migrate to other, more prosperous areas. Such labor mobility can play a significant role in long-run adjustment within an economic union.

When chronic unemployment develops in a given region, perhaps because it has lost a traditional industry to technological change, or because it is not well suited to industry by location and resource endowment, labor migration may be the preferred solution. If workers can earn higher real wages elsewhere, efficient allocation of resources calls for them to move. In a monetary union, prices and wages can readily be compared and they can serve as clear signals for resource allocation.

Critics of integration sometimes argue, as does Corden (p. 15), that exchange-rate flexibility would reduce the amount of labor migration be-

cause the real wage could be reduced through currency depreciation, thus permitting a higher level of employment in the region concerned. This argument depends on the existence of money illusion, as we have seen, which makes it primarily a short-run argument. Beyond that, it seems doubtful that workers' welfare is enhanced by inducing them to take jobs at lower real wages than they could get elsewhere. In this case, currency depreciation tends to *hold resources in place*, instead of encouraging their transfer to the most efficient locations.

Again, a great deal depends on the case one has in mind. Corden is probably thinking of a case in which money wages have been bid up *above* levels prevailing elsewhere. Then currency depreciation may bring real wages down to competitive levels and also permit higher employment in the region concerned. (Without depreciation, workers who migrate presumably do so to obtain jobs paying *lower* wages than those prevailing in their home region. If they are willing to work for lower wages elsewhere, why are they unwilling to do so at home, even without the snare of "money illusion"?)

In my opinion, a more important case is one in which wages in the depressed region are already lower than wages elsewhere in the nation or Community. The problem in Appalachia, Wales, Southern Italy, and other such regions is not that wages have been pushed up *above* the levels elsewhere, but that wages (money and real) are already lower than elsewhere, with jobs scarce even at the lower wages. To discourage emigration of workers by a further reduction in the real wage through exchange depreciation and money illusion seems like a poor policy, even if it would work. If productive employment cannot be generated, better to let labor move out.

Many complex factors—social, cultural, and political—are involved in the movement of labor, especially across international borders. Society may prefer to maintain a certain dispersion of population and to resist tendencies toward its concentration in a few urban areas, even at the cost of reduced output and efficiency. Nations now have a variety of regional economic and social programs through which they attempt to deal with problems of regional imbalance. These programs can continue to function in a monetary union, and capital-market integration may even increase their effectiveness.

Eventually, the development of Community-wide institutions and fiscal functions may enable regional problems to be dealt with at a Community level. The European Investment Bank and Social Fund are small steps in this direction. However, it seems likely that national governments will continue to play a leading role in the operation of regional programs. Even in the United States, Borts and Stein (1962)

state that "despite the potential power of the federal government, most of the active government policy affecting depressed areas is carried out at the state and municipal level." Nations may similarly retain a degree of fiscal autonomy sufficient to enable them to influence employment and the utilization of resources within their borders.

Critics of monetary integration seem to fear that an entire nation may become a kind of "depressed area," outpaced by other members and unable to compete in such a wide range of products that it suffers widespread unemployment. This idea tends to conflict with the principle of comparative advantage, especially if one considers the beginning stages of the loss of competitiveness. In a monetary union, as costs rise and an industry's prices get out of line, it cuts output and lays off workers. The presence of unemployment tends to restrain wage demands, which should prevent the loss of competitiveness from spreading to other industries. As saving and net investment take place through time, the nation's comparative-advantage industries should expand, assisted if necessary by fiscal action of government.

If labor unions and other groups with monopoly power proceed, willy-nilly, to force up wages and prices, or if the nation really has no viable resource base, then the solution may indeed be migration and decline. However, in that event, no alternative system offers any better solution. Flexible exchange rates in particular would not help.

Such a gloomy outcome seems improbable. Member nations in the European Community possess a sufficient range of industries and diversity of resources to allow considerable allocative adjustments to take place. Each nation will tend to specialize in goods and services in which it has a comparative advantage, with the allocative process facilitated by intra-Community movements of capital and labor, and wage and price deviations checked by the Community-wide market for goods and services. By analogy to Corden's concept of a "feasible currency area," within which money illusion is strong enough to make effective a reduction in real wages through devaluation, we assume that member nations are "feasible resource areas," possessing a sufficient diversity of economic resources to support a variety of industries. Thus, when one industry declines, resources can be shifted into other uses. There seems to be no basis for the fear that *all* industries will be declining and the entire nation a depressed area.

Wealth effects. A nation experiencing payment pressures will tend to transfer financial assets to the rest of the Community. This decline in its stock of assets will raise the ratio of income and current expenditure to wealth, thus disturbing portfolio balance. To restore this ratio to its previous equilibrium, households may try to reduce current expenditures

and increase their savings. Opposite effects will tend to occur in the rest of the Community, where wealth is increasing. These changes in expenditure will tend to correct the initial deficit on current accounts.

This "Pigou effect" is a slow process, and there is room for debate about its practical importance. However, to the extent that it exists, it will operate in the right direction. The more open the economy, the greater the effect upon the current-account balance and the less the internal deflationary pressure.

Differential rates of change. Much long-run adjustment among regions can occur through differences in the rates of change in wages, productivity, income, prices, and capital formation. Over a period of years, substantial changes can occur in the relative economic position of different regions, yet without the necessity for drastic deflationary pressures and absolute declines in wages and prices in one region, as called for in gold-standard stereotypes.

Since we lack a theory capable of dealing with all these long-run factors, we should be wary of conclusions drawn from the essentially static theory of balance-of-payments adjustment. Economists have long emphasized the current account in their analysis of the adjustment process, and they rarely allow for the effects of changes in capacity through capital formation or technological change. This habitual mode of thought tends to lead one away from some aspects of regional adjustment in an institutional setting in which capital movements are perfectly free.

A Political Postscript

It is obvious that the necessity for perfect confidence in the permanent fixity of exchange rates in monetary integration, as defined in this essay, ultimately confronts the reality of national sovereignty, which implies the right and power of a nation to change its mind. Europe has so far resolved the potential conflict between sovereignty and federalism through negotiation and compromise. Such resolution may become increasingly difficult as integration becomes closer. Without some signs of political unification, it may be particularly difficult to convince the capital markets that exchange rates are irrevocably fixed.

References

- Action Programme of the Community for the Second Stage*, EEC Commission, Brussels, October 1962.
- Bloomfield, Arthur I., "European Monetary Integration: The Historical Setting," in Lawrence Krause and Walter S. Salant, eds., *European Monetary Unification*, forthcoming.
- Borts, George, and Jerome Stein, "Regional Growth and Maturity in the United States," *Schweizerische Zeitschrift für Volkswirtschaft und Statistik*, 98 (1962), pp. 290-321.
- Corden, W. M., *Monetary Integration*, Essays in International Finance No. 93, Princeton, N.J., 1972.
- Ingram, James C., "State and Regional Payments Mechanisms," *Quarterly Journal of Economics*, 73 (November 1959), pp. 619-632.
- , "A Proposal for Financial Integration in the Atlantic Community," in *Factors Affecting the U.S. Balance of Payments*, Joint Economic Committee Print, 87th Cong., 2nd Sess., Washington, 1962.
- Krause, Lawrence, "Private Capital Markets and European Monetary Union," in Lawrence Krause and Walter S. Salant, eds., *European Monetary Unification*, forthcoming.
- "Report to the Council and the Commission on the Realisation by Stages of Economic and Monetary Union in the Community," *Bulletin of the European Communities*, 11 (1970), Supplement [the "Werner Report"].

PUBLICATIONS OF THE INTERNATIONAL FINANCE SECTION

Notice to Contributors

The International Finance Section publishes at irregular intervals papers in four series: **ESSAYS IN INTERNATIONAL FINANCE**, **PRINCETON STUDIES IN INTERNATIONAL FINANCE**, **SPECIAL PAPERS IN INTERNATIONAL ECONOMICS**, and **REPRINTS IN INTERNATIONAL FINANCE**. **ESSAYS** and **STUDIES** are confined to subjects in international finance. **SPECIAL PAPERS** are confined to surveys of the literature suitable for courses in colleges and universities. An **ESSAY** should be a lucid exposition of a theme, accessible not only to the professional economist but to other interested readers. It should therefore avoid technical terms, should eschew mathematics and statistical tables (except when essential for an understanding of the text), and should rarely have footnotes. Most important, it should have a certain grace of style and rhythm in its language.

This does not mean that a **STUDY** or **SPECIAL PAPER** may be awkward and clumsy, but it may be more technical. It may include statistics and algebra, and may have many footnotes. **STUDIES** and **SPECIAL PAPERS** may also be longer than **ESSAYS**; indeed, these two series are meant to accommodate manuscripts too long for journal articles and too short for books.

To facilitate prompt evaluation, please submit three copies of your manuscript. Retain one copy for your files. The manuscript should be typed on one side of 8½ by 11 strong white paper. All material should be double-spaced—text, excerpts, footnotes, tables, references, and figure legends. More complete guidance appears in the Section's style guide; prospective contributors are urged to send for it before preparing their manuscripts.

How to Obtain Publications

A mailing list is maintained for free distribution of **ESSAYS** and **REPRINTS** as they are issued and of announcements of new **STUDIES** and **SPECIAL PAPERS**. Requests for inclusion in this permanent list will be honored, except that students will not be placed on the mailing list because of their frequent changes of address. A smaller list is maintained for free distribution of **STUDIES** and **SPECIAL PAPERS** to institutions of education and research and university libraries here and abroad.

ESSAYS and **REPRINTS** ordered from the Section are 50 cents a copy plus 50 cents handling charge per order. **STUDIES** and **SPECIAL PAPERS** are \$1. (These charges are waived on orders from persons in countries whose currency restrictions make it difficult to remit.) Noneducational institutions that wish to avoid placing separate orders for **STUDIES** and **SPECIAL PAPERS** can have all four series sent to them automatically in return for an annual contribution of \$25 to the publication program of the International Finance Section.

All manuscripts, correspondence, and orders should be addressed to:

International Finance Section
P. O. Box 644
Princeton, New Jersey 08540

(Customers in England, Scotland, and Ireland may find it more convenient to order Section publications from the Economists' Bookshop, Portugal Street, London, W.C. 2, or Blackwells, Broad Street, Oxford. These booksellers will usually have Section publications in stock.)

List of Publications

The following is a list of the publications of the International Finance Section. The issues of the four series marked by asterisks, and Essays Nos. 1 through 60, are no longer available from the Section.¹ They may be obtained in Xerographic reproductions (that is, looking like the originals) from University Microfilm, Inc., 300 N. Zeeb Road, Ann Arbor, Michigan 48106. (Most of the issues are priced at \$6.00.)

ESSAYS IN INTERNATIONAL FINANCE

- No. 61. Charles P. Kindleberger, *The Politics of International Money and World Language*. (Aug. 1967)
62. Delbert A. Snider, *Optimum Adjustment Processes and Currency Areas*. (Oct. 1967)
- * 63. Eugene A. Birnbaum, *Changing the United States Commitment to Gold*. (Nov. 1967)
- * 64. Alexander K. Swoboda, *The Euro-Dollar Market: An Interpretation*. (Feb. 1968)
- * 65. Fred H. Klopstock, *The Euro-Dollar Market: Some Unresolved Issues*. (March 1968)
66. Eugene A. Birnbaum, *Gold and the International Monetary System: An Orderly Reform*. (April 1968)
67. J. Marcus Fleming, *Guidelines for Balance-of-Payments Adjustment under the Par-Value System*. (May 1968)
68. George N. Halm, *International Financial Intermediation: Deficits Benign and Malignant*. (June 1968)
- * 69. Albert O. Hirschman and Richard M. Bird, *Foreign Aid—A Critique and a Proposal*. (July 1968)
- * 70. Milton Gilbert, *The Gold-Dollar System: Conditions of Equilibrium and the Price of Gold*. (Nov. 1968)
71. Henry G. Aubrey, *Behind the Veil of International Money*. (Jan. 1969)
72. Anthony Lanyi, *The Case for Floating Exchange Rates Reconsidered*. (Feb. 1969)
- * 73. George N. Halm, *Toward Limited Exchange-Rate Flexibility*. (March 1969)
74. Ronald I. McKinnon, *Private and Official International Money: The Case for the Dollar*. (April 1969)
75. Jack L. Davies, *Gold: A Forward Strategy*. (May 1969)
- * 76. Albert O. Hirschman, *How to Divest in Latin America, and Why*. (Nov. 1969)
77. Benjamin J. Cohen, *The Reform of Sterling*. (Dec. 1969)
- * 78. Thomas D. Willett, Samuel I. Katz, and William H. Branson, *Exchange-Rate Systems, Interest Rates, and Capital Flows*. (Jan. 1970)
- * 79. Helmut W. Mayer, *Some Theoretical Problems Relating to the Euro-Dollar Market*. (Feb. 1970)
- * 80. Stephen Marris, *The Bürgenstock Communiqué: A Critical Examination of the Case for Limited Flexibility of Exchange Rates*. (May 1970)
- * 81. A. F. Wynne Plumptre, *Exchange-Rate Policy: Experience with Canada's Floating Rate*. (June 1970)
82. Norman S. Fieleke, *The Welfare Effects of Controls over Capital Exports from the United States*. (Jan. 1971)
- * 83. George N. Halm, *The International Monetary Fund and Flexibility of Exchange Rates*. (March 1971)
84. Ronald I. McKinnon, *Monetary Theory and Controlled Flexibility in the Foreign Exchanges*. (April 1971)
85. Robert A. Mundell, *The Dollar and the Policy Mix: 1971*. (May 1971)

¹ A list of the titles of Essays Nos. 1 through 60 is available from the Section, or consult the complete publications list in earlier essays.

- * 86. Richard N. Cooper, *Currency Devaluation in Developing Countries*. (June 1971)
- * 87. Rinaldo Ossola, *Towards New Monetary Relationships*. (July 1971)
- 88. Giovanni Magnifico, *European Monetary Unification for Balanced Growth: A New Approach*. (Aug. 1971)
- * 89. Franco Modigliani and Hossein Askari, *The Reform of the International Payments System*. (Sept. 1971)
- 90. John Williamson, *The Choice of a Pivot for Parities*. (Nov. 1971)
- 91. Fritz Machlup, *The Book Value of Monetary Gold* (Dec. 1971)
- 92. Samuel I. Katz, *The Case for the Par-Value System, 1972*. (March 1972)
- 93. W. M. Corden, *Monetary Integration*. (April 1972)
- 94. Alexandre Kafka, *The IMF: The Second Coming?* (July 1972)
- 95. Tom de Vries, *An Agenda for Monetary Reform*. (September 1972)
- 96. Michael V. Posner, *The World Monetary System: A Minimal Reform Program*. (October 1972)
- 97. Robert M. Dunn, Jr., *Exchange-Rate Rigidity, Investment Distortions, and the Failure of Bretton Woods*. (Feb. 1973)
- 98. James C. Ingram, *The Case for European Monetary Integration*. (April 1973)

PRINCETON STUDIES IN INTERNATIONAL FINANCE

- *No. 1. Friedrich A. and Vera C. Lutz, *Monetary and Foreign Exchange Policy in Italy*. (Jan. 1950)
- * 2. Eugene R. Schlesinger, *Multiple Exchange Rates and Economic Development*. (May 1952)
- * 3. Arthur I. Bloomfield, *Speculative and Flight Movement of Capital in Postwar International Finance*. (Feb. 1954)
- * 4. Merlyn N. Trued and Raymond F. Mikesell, *Postwar Bilateral Payments Agreements*. (April 1955)
- * 5. Derek Curtis Bok, *The First Three Years of the Schuman Plan*. (Dec. 1955)
- * 6. James E. Meade, *Negotiations for Benelux: An Annotated Chronicle, 1943-1956*. (March 1957)
- * 7. H. H. Liesner, *The Import Dependence of Britain and Western Germany: A Comparative Study*. (Dec. 1957)
- * 8. Raymond F. Mikesell and Jack N. Behrman, *Financing Free World Trade with the Sino-Soviet Bloc*. (Sept. 1958)
- * 9. Marina von Neumann Whitman, *The United States Investment Guaranty Program and Private Foreign Investment*. (Dec. 1959)
- * 10. Peter B. Kenen, *Reserve-Asset Preferences of Central Banks and Stability of the Gold-Exchange Standard*. (June 1963)
- * 11. Arthur I. Bloomfield, *Short-Term Capital Movements under the Pre-1914 Gold Standard*. (July 1963)
- 12. Robert Triffin, *The Evolution of the International Monetary System: Historical Reappraisal and Future Perspectives*. (June 1964)
- 13. Robert Z. Aliber, *The Management of the Dollar in International Finance*. (June 1964)
- 14. Weir M. Brown, *The External Liquidity of an Advanced Country*. (Oct. 1964)
- * 15. E. Ray Canterbery, *Foreign Exchange, Capital Flows, and Monetary Policy*. (June 1965)
- 16. Ronald I. McKinnon and Wallace E. Oates, *The Implications of International Economic Integration for Monetary, Fiscal, and Exchange-Rate Policy*. (March 1966)
- 17. Egon Sohmen, *The Theory of Forward Exchange*. (Aug. 1966)
- 18. Benjamin J. Cohen, *Adjustment Costs and the Distribution of New Reserves*. (Oct. 1966)
- 19. Marina von Neumann Whitman, *International and Interregional Payments Adjustment: A Synthetic View*. (Feb. 1967)

20. Fred R. Glahe, *An Empirical Study of the Foreign-Exchange Market: Test of A Theory*. (June 1967)
21. Arthur I. Bloomfield, *Patterns of Fluctuation in International Investment before 1914*. (Dec. 1968)
22. Samuel I. Katz, *External Surpluses, Capital Flows, and Credit Policy in the European Economic Community*. (Feb. 1969)
23. Hans Aufricht, *The Fund Agreement: Living Law and Emerging Practice*. (June 1969)
24. Peter H. Lindert, *Key Currencies and Gold, 1900-1913*. (Aug. 1969)
25. Ralph C. Bryant and Patric H. Hendershott, *Financial Capital Flows in the Balance of Payments of the United States: An Exploratory Empirical Study*. (June 1970)
26. Klaus Friedrich, *A Quantitative Framework for the Euro-Dollar System*. (Oct. 1970)
27. M. June Flanders, *The Demand for International Reserves*. (April 1971)
28. Arnold Collyer, *International Adjustment, Open Economies, and the Quantity Theory of Money*. (June 1971)
29. Robert W. Oliver, *Early Plans for a World Bank*. (Sept. 1971)
30. Thomas L. Hutcheson and Richard C. Porter, *The Cost of Tying Aid: A Method and Some Colombian Estimates*. (March 1972)
31. The German Council of Economic Experts, *Toward a New Basis for International Monetary Policy*. (October 1972)
32. Stanley W. Black, *International Money Markets and Flexible Exchange Rates*. (March 1973)

SPECIAL PAPERS IN INTERNATIONAL ECONOMICS

- No. 1. Gottfried Haberler, *A Survey of International Trade Theory*. (Sept. 1955; Revised edition, July 1961)
- * 2. Oskar Morgenstern, *The Validity of International Gold Movement Statistics*. (Nov. 1955)
- * 3. Fritz Machlup, *Plans for Reform of the International Monetary System*. (Aug. 1962; Revised edition, March 1964)
- * 4. Egon Sohmen, *International Monetary Problems and the Foreign Exchanges*. (April 1963)
- * 5. Walther Lederer, *The Balance on Foreign Transactions: Problems of Definition and Measurement*. (Sept. 1963)
- * 6. George N. Halm, *The "Band" Proposal: The Limits of Permissible Exchange Rate Variations*. (Jan. 1965)
- * 7. W. M. Corden, *Recent Developments in the Theory of International Trade*. (March 1965)
8. Jagdish Bhagwati, *The Theory and Practice of Commercial Policy: Departures from Unified Exchange Rates*. (Jan. 1968)
9. Marina von Neumann Whitman, *Policies for Internal and External Balance*. (Dec. 1970)

REPRINTS IN INTERNATIONAL FINANCE

- *No. 1. Fritz Machlup, *The Cloakroom Rule of International Reserves: Reserve Creation and Resources Transfer*. [Reprinted from *Quarterly Journal of Economics*, Vol. 79 (Aug. 1965)]
- * 2. Fritz Machlup, *Real Adjustment, Compensatory Corrections, and Foreign Financing of Imbalances in International Payments*. [Reprinted from Robert E. Baldwin et al., *Trade, Growth, and the Balance of Payments* (Chicago: Rand McNally and Amsterdam: North-Holland Publishing Co., 1965)]

- * 3. Fritz Machlup, *International Monetary Systems and the Free Market Economy*. [Reprinted from *International Payments Problems: A Symposium* (Washington, D.C.: American Enterprise Institute, 1966)]
- 4. Fritz Machlup, *World Monetary Debate—Bases for Agreement*. [Reprinted from *The Banker*, Vol. 116 (Sept. 1966)]
- * 5. Fritz Machlup, *The Need for Monetary Reserves*. [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, Vol. 77 (Sept. 1966)]
- 6. Benjamin J. Cohen, *Voluntary Foreign Investment Curbs: A Plan That Really Works*. [Reprinted from *Challenge: The Magazine of Economic Affairs* (March/April 1967)]
- 7. Fritz Machlup, *Credit Facilities or Reserve Allotments?* [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 81 (June 1967)]
- 8. Fritz Machlup, *From Dormant Liabilities to Dormant Assets*. [Reprinted from *The Banker*, Vol. 117 (Sept. 1967)]
- 9. Benjamin J. Cohen, *Reparations in the Postwar Period: A Survey*. [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 82 (Sept. 1967)]
- 10. Fritz Machlup, *The Price of Gold*. [Reprinted from *The Banker*, Vol. 118 (Sept. 1968)]
- 11. Fritz Machlup, *The Transfer Gap of the United States*. [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 86 (Sept. 1968)]
- 12. Fritz Machlup, *Speculations on Gold Speculation*. [Reprinted from *American Economic Review, Papers and Proceedings*, Vol. 56 (May 1969)]
- 13. Benjamin J. Cohen, *Sterling and the City*. [Reprinted from *The Banker*, Vol. 120 (Feb. 1970)]
- 14. Fritz Machlup, *On Terms, Concepts, Theories and Strategies in the Discussion of Greater Flexibility of Exchange Rates*. [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 92 (March 1970)]
- 15. Benjamin J. Cohen, *The Benefits and Costs of Sterling*. [Reprinted from *Euro-money*, Vol. 1, Nos. 4 and 11 (Sept. 1969 and April 1970)]
- 16. Fritz Machlup, *Euro-Dollar Creation: A Mystery Story*. [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 94 (Sept. 1970)]
- 17. Stanley W. Black, *An Econometric Study of Euro-Dollar Borrowing by New York Banks and the Rate of Interest on Euro-Dollars*. [Reprinted from *Journal of Finance*, Vol. 26 (March 1971)]

SEPARATE PUBLICATIONS

- * (1) Klaus Knorr and Gardner Patterson, eds., *A Critique of the Randall Commission Report*. (1954)
- * (2) Gardner Patterson and Edgar S. Furniss Jr., eds., *NATO: A Critical Appraisal*. (1957)
- (3) Fritz Machlup and Burton G. Malkiel, eds., *International Monetary Arrangements: The Problem of Choice*. Report on the Deliberations of an International Study Group of 32 Economists. (Aug. 1964) [\$1.00]



