

ESSAYS IN INTERNATIONAL FINANCE

No. 99, June 1973

AN SDR STANDARD:
IMPETUS, ELEMENTS, AND
IMPEDIMENTS

FRED HIRSCH



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

This is the ninety-ninth 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, Fred Hirsch, is currently a Research Fellow at Nuffield College, Oxford. From 1966 until 1972 he was a senior advisor in the International Monetary Fund. A graduate of the London School of Economics, his previous career was as a financial journalist; he was Financial Editor of The Economist from 1963 until 1966. His publications include Money International (1969), The Pound Sterling: A Polemic (1965), and articles published in IMF Staff Papers and elsewhere. He is coauthor of two previous Princeton Essays, Nos. 47 and 54, in the form of "Arguments" with, respectively, Jacques Rueff (on The Role and the Rule of Gold) and Robert V. Roosa (on Reserves, Reserve Currencies, and Vehicle Currencies).

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. 99, June 1973

AN SDR STANDARD:
IMPETUS, ELEMENTS, AND
IMPEDIMENTS

FRED HIRSCH



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. 73-8014
ISSN 0071-142X

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

An SDR Standard: Impetus, Elements, and Impediments

Special Drawing Rights, in the specific form established in 1969, were designed to supplement existing reserve assets—official holdings of gold, dollars, and sterling. Their wider purpose was to provide a secure and controlled base for world monetary reserves. As is now generally recognized in both academic and official circles, SDRs in their present form are inadequate to this wider task. In order to achieve the desired degree of administrative regulation over global reserves, and to contribute to a satisfactory working of the international monetary system as a whole, changes in the rules now governing the creation and use of SDRs would be required as part of an ambitious and comprehensive reform relating, in addition, to such matters as exchange-rate adjustment.

The necessary extent and “depth” of such a reform will be governed by the wider economic and political context. Thus, in a world of fixed or only occasionally adjusted exchange rates, involving a high degree of economic integration, a more comprehensive SDR system would represent a substantial step toward a world central bank. In some of the early discussions, notably those of Triffin (1959), the development was expected to be along this line; to some extent, indeed, increased international integration at the institutional, economic, and political levels was regarded as an objective in itself. At present, however, the integrationist objective is not generally regarded as feasible on a global basis (and some, including myself, would not regard it as desirable). This is one reason why the “institutional integrationists” have turned their attention to the European front. Globally, the pressure for an increased degree of flexibility in exchange rates represents in part the felt need to “disintegrate” the international economy somewhat at the financial level, to loosen the links between domestic economies and create more leeway for pursuit of differing domestic economic policies. If this pressure is regarded as a continuing constraint on the extent of international financial integration, as I believe it realistically must be, it sets important limits on the character of a reformed SDR system. The system must not involve additional substantive inroads into national economic sov-

This is a slightly revised version of a paper presented to a conference of the Royal Economic Society on the International Monetary Problem at Ditchley Park in January 1973. The author is indebted to participants in this conference, and to W. M. Corden, for constructive criticism.

ereignty, in the sense of removing or reducing the scope for choice among economic policies that have a significant impact on national economic conditions. This essay deals with the central question posed by these circumstances: Can a technically adequate SDR system be constructed within a political constraint of this kind?

I suggest that it probably can be, and that the required changes in the present system are essentially institutional in character, affecting various professional and sectional interests rather than national sovereignty in the sense used above. I suggest that the roles of these institutional influences and of the range of interest groups involved have been insufficiently explored, and that these roles may help to explain the halting nature of recent progress in international monetary arrangements.

Another important impediment arises from the nature of these arrangements. They constitute an international collective good that has to be "paid for" in voluntary cooperation. The absence of an international authority with police and tax powers means that the necessary sanctions must be built into the collective scheme itself, by denying its specific benefits to nonmembers and transgressors; the effectiveness of such sanctions as deterrents, however, is limited by the fact that the exclusion they involve will to some extent damage the interests of the law-abiding members as well as those of the excluded transgressors. This is the basis of a private club or voluntary association. Because any indirect benefits can be captured by "free riders," the chances of securing agreement on provision of a private collective good will be the greater, the more its benefits can be internalized to participating members.¹ By implication, an SDR standard subject to the political constraint set in this essay must tie the benefits and obligations of the international reserve standard more closely together. These issues are discussed further in section 4.

1. The Go-Stop Drive to an SDR Standard

Discussions of the task to be performed by an international reserve unit have retained a common central thread from Keynes's first treatment of the subject in his *Treatise on Money* (1930, Chap. 38) to current preparations for a remodeled SDR system. This task is to surmount the inherent instability of a reserve standard based on gold while avoiding the bias in the international system that would emerge in any system based on the inconvertible paper money of a particular country acting as the world reserve center.

¹ A private collective good is customarily distinguished from a public good by the absence of compulsion in participation and/or financing; thus a private collective good may be provided by a public authority, or between independent public authorities, such as occurs internationally in international organizations and agreements.

A system based on gold has a natural tendency to instability because endogenous forces carry the system to and through the cycle of the gold-exchange standard. The inherent properties of gold as a non-interest-bearing asset and as a cumbersome means of payment induce monetary authorities to supplement or replace gold holdings by currency balances. For reasons of efficiency, these balances become concentrated in one or two dominant reserve centers. The progressive accumulation of these currency liabilities gradually weakens the balance-sheet position of the reserve-center country and at the same time inhibits its recourse to payments adjustment through devaluation. Meanwhile, in an expanding world economy with an upward trend to the price level, accruals of gold to monetary reserves tend to diminish, leaving the system increasingly dependent for incremental liquidity on the further expansion of reserve-currency balances. Since such expansion involves a further deterioration of the reserves-to-liabilities ratio of the reserve center, the process cannot be sustained and must eventuate in suspension of convertibility. [The cycle of the gold-exchange standard, and the view of this standard as a natural outgrowth of the gold standard, is described more fully in Hirsch (1971, pp. 224-232), drawing on the work of Triffin, Kenen, Johnson, Gilbert, and Willett, as there cited.] In the recent case of the U.S. dollar, this outcome was delayed for years by a series of expedients which partly anticipated the formal break made on August 15, 1971.

From this point of breakdown, three alternative courses are open in principle:

- a. Reestablishment of a favorable position of the reserve currency and other currencies relative to gold through an increase in the currency price of gold sufficient to ensure, at this stage, an adequate flow of monetary gold from new production (and to discourage private speculative purchases and perhaps induce sales): such action will in effect set off a new cycle of the gold-exchange standard.
- b. Suspension indefinitely of convertibility at a fixed price between the reserve currency and other assets, thereby avoiding the dynamic instability implicit in the first course and establishing an unencumbered reserve-currency standard available to such countries as choose to fix their own currencies to it.
- c. Substitution of an international paper standard for gold in order to achieve the stability of (b) by collective inconvertibility of currencies into any "outside" asset such as gold, while establishing a nationally neutral basis for the world reserve system through convertibility of national currencies into the unit, issued under collective administrative control.

The checkered progress of the international monetary system since about 1960 can be interpreted as a reluctant recognition of the dead-end character of (a) combined with a strong unwillingness to travel deliberately down (b), in turn leaving no alternative but (c). For national policy makers, the pull of the SDR standard is essentially negative, in the unattractiveness of the apparent alternatives.

The negative character of this evolution impedes progress to a solution and postpones definitive choice in a number of ways. Enthusiasm for the deliberative task of establishing a viable SDR standard can be brought to the necessary pitch only by the imminent threat of a breakdown or the prospect of an unavoidable choice between the two disfavored alternatives. Once this threat wanes or is obscured by the natural evolution of the system toward some new hybrid variant, there will be a tendency to judge the issues involved in constructing an SDR standard not on a comprehensive basis that compares the whole package with the one offered by an alternative "system" (i.e. a sustainable set of arrangements), but rather on a piecemeal level in which particular new arrangements and procedures of the SDR scheme are implicitly compared with the status quo or some minor modification of it. This kind of partial, sequential comparison is inherently unfavorable to a scheme that involves, as does a full-blown SDR standard, substitution of a set of codified present and future commitments for a set of loose and mainly evolutionary arrangements. A comparison on this piecemeal basis is "producer-oriented," giving more attention to objections or resistances to change expressed by existing agencies or private operating interests than to the impact of the new arrangements on the national and international economies as a whole—as the "consumers" of the system. In effect, the former elements comprise costs of the collective good and the latter its net benefits; considered separately, the costs naturally attract little enthusiasm. The interaction of the various interests and decision-making influences involved is discussed further in section 5.

2. The Role of SDRs Mark I

The form of the embryo SDR system that emerged from the official discussions and negotiations of 1963–68, in the existing facility, reflects the influence of the organizational bias discussed above. The key feature of the present SDR facility is its incrementalism. SDRs are provided as increments to existing forms of liquidity—as supplements and not as substitutes. This feature embodied in more permanent form a long-standing tendency of official responses to pressures on the international reserve system, a tendency best encapsuled by Robert Mundell as the principle of "Add, never take away," producing the "living bouillabaisse"

of reserves of ever-more-variegated form. This reflected the fact that, in the conditions of the 1960's, the consensus that could be reached in long and intensive negotiations was just wide enough to support the single major institutional innovation involved in the introduction of SDRs, but only with the proviso that the innovation entailed no specific (i.e. identifiable) costs to participants and no serious limitations on their freedom of action.

Limitation of the facility to an "add-on" role also permitted varying interpretations of the future evolution of the reserve system. While there was general agreement that further expansion of reserve currencies in the system ought to be limited, no specific provisions were made to this end. This left a fundamental ambiguity: Did SDRs replace a dollar standard or underwrite it? Some ambiguity also remained on the future role of gold and on the significance in this context of the unequivocal expression of the value of SDRs in weight of gold.

The SDR Mark I was at once a continuation of the earlier expedients designed to shore up the gold-exchange standard and to paper over the payments disequilibrium between the United States and other countries, which the structural features of the gold-exchange standard helped to perpetuate; and, at the same time, an innovation whose own objective would tend to bring these inconsistencies to a head. This objective is in effect to help regulate the supply of global reserves in line with long-term needs. This is implicit in Article XXIV, Section 1(a), of the International Monetary Fund setting out the principles that are to govern decisions on allocations and cancellations of SDRs by the IMF: "the Fund shall seek to meet the long-term global need, as and when it arises, to supplement existing reserve assets in such a manner as will promote the attainment of its purposes and will avoid economic stagnation and deflation as well as excess demand and inflation in the world."

The regulation of reserve supply is impossible as long as SDR allocations can be dwarfed by uncontrolled expansion of foreign-exchange holdings, as they were in 1970-72. Attainment of control over the foreign-exchange component requires both (i) a usable instrument of adjustment for reserve centers, so that they are *able* to avoid an excessive expansion of their currency liabilities to foreign monetary authorities, and (ii) regulations applying to issuers and recipients of reserve currencies requiring the conversion of new accruals, so that reserve centers *do* avoid such increases in their reserve liabilities. The SDR system, in its careful ambiguity, included neither of these requirements; it could nonetheless be considered to set the stage for a second operation in which these requirements could be imposed without excessive risk.

More directly, the creation of the SDR facility affected at two key

points the outcome of the pressures on the U.S. dollar and on the gold-exchange standard of the 1960's. These points can be related to particular historical episodes. Following the devaluation of sterling in 1967, intensive speculative pressures arose in the form of massive purchases of gold. On this first occasion, the imminent availability of the SDR facility enabled governments to postpone the choice between an official revaluation of gold and a move to a pure dollar standard—alternatives (a) and (b) above. It offered the possibility that the SDR facility, then at an advanced stage of negotiation, would somehow provide a third alternative. The Ministerial Meeting of the Group of Ten, which was to deal with the remaining outstanding issues in the SDR negotiation, had been scheduled to meet in Stockholm in late March 1968; this turned out to be two weeks after the culmination of the gold crisis, and the crisis atmosphere undoubtedly contributed to the necessary agreement. The prospect of SDR allocation also helped to tilt the balance against gold by allowing the major central banks at the Washington meeting which broke up the earlier gold pool to renounce gold purchases from the private market, as well as gold sales to the market (Hirsch, 1971, fn. 15).

The second occasion on which SDRs Mark I influenced "system choice" occurred when the U.S. balance-of-payments deficit resurfaced in unprecedented magnitude in 1970. The existence of SDRs, and the fact that they had been allocated on the predication that increases in dollar reserves would be minimal, permitted and encouraged the exertion of international pressure for the financing of the U.S. deficit through use of its reserve assets. Thus, in a widely quoted portion of his opening address at the September 1970 meeting of the IMF in Copenhagen, the Managing Director of the Fund stated: "Until the payments position of the United States is brought into balance, it is important that the deficit should be financed by the use of U.S. reserve assets to the extent necessary to avoid an excessive expansion of official holdings of dollars by other countries. A policy of this kind is indeed necessary if control over the issuance of special drawing rights is also to provide the means of regulating the aggregate volume of world reserves" (IMF, 1971, p. 18). Obviously, this pressure was in practice likely to increase the probability of a suspension of convertibility and an exchange adjustment, such as eventually occurred in August to December 1971. This is not to say that these actions were deliberately forced or directly contemplated. But the existence of the SDR facility meant that such actions could be risked and, in a sense, had to be risked. They could be risked because SDR allocations could now make good any eventual undue tightening in reserve positions that might result from an adequate ex-

change adjustment by the United States. And they had to be risked because if the United States had not undertaken adjustment in the face of a huge deficit, a dollar standard would have been enshrined, removing an ambiguity of the SDR scheme in a way fatal to its continuance and to its underlying internationalist rationale.

3. Elements of a Viable SDR Standard

On this reading, then, the historical role of SDRs Mark I was to introduce and keep open alternative course (c), a viable international paper standard, while stopping short of a definitive commitment to that course. The issue underlying current official investigations is what provisions would be needed for such a definitive commitment to a full-fledged SDR system and what implications these provisions would have for institutional arrangements and for the pursuit of national policy objectives. The characteristics of a reformed SDR system are examined briefly in this section, within the general constraint that the system avoids substantive reduction in effective national economic sovereignty in the sense indicated in the introduction to this essay.

The general objectives of the reserve standard are assumed to be as follows:

- Consistency with chosen domestic economic policies
- Consistency with the absence of restrictions on current trade and payments
- Promotion of adjustment of international payments in smooth and gradual ways, together with reasonable assurance of stability for the reserve standard itself

To attain these objectives, three main attributes appear to be required of the reserve standard:

- a. Association with a smooth and effective system of exchange-rate adjustment
- b. Provision of a regular source of reserve growth under administrative control
- c. Avoidance of accumulation and decumulation of holdings of national currencies in official reserves

The elements are interlinked in various ways:

- a. A smooth system of *exchange-rate adjustment* is necessary for all three objectives. For reasons I have detailed elsewhere (Hirsch, 1972a), I believe this requires not merely a more flexible attitude toward the use of "existing" provisions, but a specific reform of institutional arrange-

ments governing exchange adjustment. This could be achieved, in a context of wider exchange margins, by some blend of international agreement on "equilibrium parity zones" and national decision on establishment of parities within these zones (Hirsch, 1972a), or by some variant on this theme. Such a variant could include a formal abandonment of parities, in a system of "managed floating" in which intervention in exchange markets by national exchange authorities was constrained and coordinated in some way by international agreement. The actions taken in response to exchange-market speculation in February and March of this year could be interpreted as a development along this line. All major currencies are now floating against the dollar. Arrangements to limit the range of fluctuation in market rates among their own currencies are now formalized by an inner core of European countries. (These fluctuations are limited within set margins of $2\frac{1}{4}$ per cent on either side of the effective cross-parities, but the significance of this is diluted by the continuing possibility of changes in the effective cross-parities whenever pressure builds up.) The position of other exchange rates, as influenced by market forces tempered by official intervention, is generally accepted as a matter of legitimate mutual concern. All this is a step toward a more positive collective influence over exchange rates, such as is probably necessary to attain a smooth system of exchange-rate adjustment. At the same time, the partial insulation from speculative influences provided by floating rates may well reduce the pressure on governments to negotiate a comprehensive reform of the system.

b. Provision for *reserve growth* is the essence of the existing SDR facility. It is accomplished by annual allocations of SDRs in an amount determined in advance by collective decision, distributed among countries in proportion to their quotas in the IMF. This is an efficient mechanism that could be carried over to the full-fledged SDR system, subject to two desirable amendments: (i) upward adjustment of the interest rate on net use or net acquisition (ex-allocation) of SDRs, to avoid arbitrary transfers of resources to net users or net spenders of these reserves, and (ii) assignment of some portion, such as one-half, of the annual SDR allocation to the World Bank group to furnish additional development aid.

The rationale for a link with development aid is that the SDR scheme as a whole confers a collective global benefit as compared with the alternatives. Unlike the gold standard, it allows for the creation of reserve assets without absorbing real resources. Unlike the dollar standard, it allows for general "participation" in decision making and, therefore, an international distribution of influence. For some or all of this benefit to be distributed for a collective purpose—such as the provision

of additional development aid—is then as rational as for it to be distributed pro rata to individual participants to use for individual or collective purposes as they wish.

Johnson's criticism (1972) of the former course, on the ground that it involves resource transfer, begs the question of whether it may be legitimate for the international community to take a deliberate distributional decision to effect such a transfer in the process of harvesting the resource or participation "yield" of the SDR system. This seems as legitimate an exercise of collective choice as a decision by a national government to devote the fruits of an increase in productivity to increased welfare payments, rather than distribute it pro rata in rebates to all citizens and leave them to decide individually whether they wish to devote these windfalls to the needy in private charity. Development aid can be regarded as in part an international collective good, as an analogue to national redistribution that is in part a national collective good. There may indeed be a stronger case for such a categorization in the international context, to the extent that an increase in aid given by one industrial country in isolation will worsen its terms of trade in a way that the same transfer accompanied by matching transfers by other industrial countries may not. There is an ancillary danger that when reserves created by collective decision of the rich countries no longer accrue proportionately to them, they will create too few. But this can be neutralized by suitable manipulation of the fraction of the SDR allocation that is still distributed proportionately to countries; this aspect of the allocation gives rich countries with their eyes on their own take an incentive to *increase* the total allocation.

If a link with development aid were introduced for the allocation of SDRs bearing equilibrium interest rates (i.e. based on rates in major money markets adjusted for expectations of exchange-rate movements vis-à-vis SDRs), and if SDRs disbursed as aid by the development agency were to be on concessional terms, special devices would be required. One possibility would be to exempt the agency from the obligation to pay interest on its own use of these SDRs, and to square the books by paying no interest to the developed countries receiving the SDRs in settlement of aid contracts; these countries would thereafter be counted as the allocatees for purposes of charging interest on subsequent use, and the regular interest provisions would then apply. An arrangement of this kind, involving payment for exports in what amounted to an assured overdraft facility, might induce a few countries with comfortable reserve positions to bow out of tendering for such aid contracts. For the most part, however, this would have the effect of curbing excessive surpluses, so that the arrangement would merely introduce a

useful small anti-mercantilist bias into the system. The more general trade effect of an aid link—helping industrial countries to achieve a net export surplus—matches a feature of an active gold standard that has been emphasized by some analysts, exaggeratedly in my opinion, as an important remaining differential advantage over a straight SDR scheme. [Thus Gilbert (1968) and Oppenheimer (1969) have stated that the effect of gold accruals to monetary reserves in producing equilibrium conditions for the global monetary system cannot be replicated by SDR allocations. While these would satisfy countries' latent demand for an excess of overall surpluses (i.e. for reserve accrual), they would in this view leave unsatisfied the latent demand for an excess of surpluses on current account. I am unconvinced of the importance of this factor in a world of easy adjustability of exchange rates—which Gilbert and Oppenheimer admittedly do not directly assume. Johnson (1972), somewhat oddly, makes no mention of the potential role of the link in satisfying mercantilist leanings, while making easy meat of its outdated role in expanding world demand.]

c. A viable SDR standard requires *provisions ensuring against accumulations of currency holdings* in national reserves. Otherwise, the introduction of SDRs would merely produce an SDR-exchange standard, which would be subject to part of the same cycle of instability as the gold-exchange standard and would retain a major asymmetry in the role of the reserve center. Above all, accumulations of reserves in the form of national currencies impede a smooth process of payments adjustment for the issuing (reserve center) country.

The most direct way—and possibly the only effective way—of avoiding these hostages to currency fortune is the collective renunciation of reserve-currency financing. For the reserve center, this would involve the financing of both deficits and surpluses with reserve assets (SDRs) and negotiated credits; for other countries, it would involve the conversion of reserve currencies as they accrue, so that swings in their own payments balances are financed with SDRs and negotiated credits. Operationally, this principle could be implemented through use of a Reserve Substitution Account set up as part of a reformed SDR facility, as suggested by Fleming (1972) and in the interim report on reform of the IMF (1972). Problems associated with currency intervention for exchange support are discussed later in this section.

The financing in SDRs and negotiated credits of payments imbalances of erstwhile reserve centers would make existing accumulated holdings of reserve currencies functionally redundant, and would require at least an optional facility for exchanging these holdings into special issues of SDRs through a conversion or substitution account. The more extensive

the use made of this conversion facility at the outset, the more smoothly the system of asset settlement could be expected to work, as excess holdings of national currencies were removed from official reserves.

Gold

The reserve-substitution facility should also be held open for conversions of existing monetary holdings of gold into newly issued SDRs. The use of the facility for this purpose could be voluntary. In this event, however, a terminal date should be set beyond which the remaining monetary links with gold would be cut. These links are now peripheral, in any case, adhering chiefly to certain IMF transactions. IMF procedures that require gold transactions will almost certainly have to be altered. Those that relate only nominally to gold—such as the expression of currency parities and the value of SDRs in gold weight—are of no practical importance now that it has been established (by custom) that the provisions in question refer merely to an arbitrarily determined official valuation of gold. The link between SDRs and gold is indeed entirely circular; SDRs are in effect defined in terms of themselves, and the present shadow role of gold preserves an ambiguity that would be extraneous in a wholehearted SDR standard. There are also clear efficiency advantages in leaving national authorities free to indulge whatever preferences they have for holding gold themselves. These holdings have nonmonetary purposes—strategic, speculative, investment, etc.—that now dominate official as well as private uses of gold. On the same grounds, monetary authorities should be free to sell gold to the private sector at its current market valuation. The welfare benefits of gold have become concentrated in its nonmonetary uses, whether official or private. There is therefore no continuing justification for preventing official gold transactions in private markets, a restriction that makes these markets artificially narrow and speculative. (For further discussion see Hirsch, 1972b.) The availability of SDRs to offset withdrawals from monetary reserves permits a relaxed attitude toward a return of gold to its commodity function.

The Form of Currency Intervention

There has traditionally been an organic connection between the form in which reserves are held and the mechanism by which exchange rates are maintained within officially determined limits. Under the mechanism used in the postwar period, countries other than the United States have maintained their currencies within agreed margins of parity by buying and selling their currencies against U.S. dollars; the United States traditionally has not intervened in the exchange markets and has maintained

its own parity under the IMF Articles by freely buying and selling gold to monetary authorities. (This describes the position before August 15, 1971, or more strictly before the imposition by the United States in March 1968 of certain restrictions on its willingness to sell gold to monetary authorities. Under the new European Economic Community currency arrangements, members of the EEC intervene in each other's currencies as described below.) Under these arrangements, countries have held working balances in dollars as an integral part of their reserves; this practice would have to be changed or, at the least, regulated substantially if SDRs were to be made the predominant component of reserves and the medium for settlement of imbalances.

Three different approaches can be envisaged for adapting the techniques of exchange support to the new requirements:

a. The most radical approach would be to dispense with any national currency as the "money" used by national authorities to support the price of other currencies, and to base the support mechanism on commitments by monetary authorities to buy and sell their own currencies against SDRs. It would then be left to private arbitrageurs to limit fluctuations in currency rates within the leeway set by the margin between the official buying and selling prices for SDRs. The intellectual antecedent of such a scheme is of course the gold-points mechanism in operation before 1914.

This mechanism would undoubtedly be an efficient way of establishing the dominance of the SDR as a reserve asset and as a medium of official settlements. But the mechanism would do much more. It would extend the character of SDRs from a claim held exclusively within the official sector to a money available for use by private parties. This in turn would tend to tie national money-market conditions more closely together, just as the development of markets in Eurocurrencies has done. Actual and prospective movements in exchange rates would continue to be a disintegrating influence, but the availability of the SDR as an open and broad haven for private funds seeking shelter against a weak national currency would reduce the "moneyness" of at least the weaker national currencies. This approach has been seen as leading ultimately to a world currency (Cooper, 1972). The likely strength of such a tendency is a matter for debate; its direction is not. The approach must therefore be rejected as a violation of the general constraint of "no additional internationalist integration" imposed in this essay. (Effects of the same general kind must be expected in a European context from any introduction of a new European unit—the "Europa"—as a money-market instrument available to private holders.)

b. Less radical substantively, but still involving a considerable institutional change, is replacement of intervention in U.S. dollars by countries other than the United States with intervention by all participating countries in all currencies—symmetrical currency intervention. This could function in conjunction with a simple clearing union. Each participating central bank would establish a dealing price against every other currency. This would be the price at which it would supply its own currency against foreign currencies in excess supply (at the upper limit of the margin in the exchange market) and/or the price at which it would supply foreign currencies in excess demand (at the lower limit of the margin). Central banks could agree either all to intervene at the lower limit, or all at the upper limit; or they could intervene in both directions and harmonize their dealing prices through continuous operational coordination (as practiced at present by European central banks intervening in each other's currencies). A central bank under these arrangements could draw foreign currencies from the issuing central banks on an overdraft basis, and settle its accounts—acquisitions of foreign currency *less* amounts drawn under the credit lines—by regular monthly settlements in SDRs.

This system would end several existing asymmetries that the single-currency intervention arrangements involve for the intervention-currency country, the United States. It would allow the United States the same margin for fluctuations of its currency in terms of others as is available between third currencies, rather than one-half of that margin, as prevails while the margins are in terms of dollars. It would make it operationally easier for the United States to change its parity, since changes would then be reflected as changes in U.S. dealing rates for all currencies (and in rates set by other countries for the U.S. dollar); at present, by contrast, a U.S. parity change must be operationally reflected entirely by changes in the dollar dealing rates of other countries. It would allow the United States to float its currency on its own volition, rather than being dependent on a general floating of other currencies, since a withdrawal by the United States from settlements in the clearing would allow other countries to suspend their intervention in dollars while maintaining intervention and effective parity relationships vis-à-vis other currencies. Finally, it would add operational force to commitments to avoid accumulations of foreign-exchange reserves, as it would dispense with the need for working balances.

These considerations lead Fleming (1972) to favor a symmetrical intervention system. The force of these considerations depends in part, however, on the associated arrangements for adjusting currency parities.

If these contained built-in provisions for regular parity adjustment, as is contemplated in only a very qualified way by Fleming, the exchange-rate symmetry supplied by the symmetrical support system would be of much less significance than it would be in a continued "sticky" regime of exchange adjustment. As for minimizing or eliminating official holdings of foreign exchange, this could also be achieved by the least radical, less complex approach discussed immediately below.

c. This is to maintain single-currency intervention by countries other than the reserve center (the United States) but to maintain tight collective control over the level of dollar working balances. This approach would probably work most effectively if the permitted level were zero. Technically, this should be feasible; currencies needed for exchange-market operations could be supplied by the issuing central bank on overdraft, to be liquidated by periodic settlements, as in the symmetrical intervention system. One technical possibility would be for each central bank to conduct its intervention through instructions to the New York Federal Reserve Bank, to sell or buy dollars against its currency for its account; this account would then be settled at the beginning of the following month by a transfer of SDRs to the United States to the extent of any net sales of dollars, and by SDRs transferred from the United States to the extent of any net acquisition of dollars. In this way, building on techniques of intervention undertaken in association with drawings on swap credits, it might be feasible to maintain exchange support on a simple dollar basis while avoiding the need for any working balances, thereby confining owned reserves and settlements (beyond daily needs) to SDRs.

A change in the U.S. parity under this arrangement would, as now, have to be effected through changes in the dollar dealing rates of other monetary authorities. The political significance and sensitivity of such a change would be reduced if countries generally expressed their parities in SDRs rather than dollars, and expressed movements in their parities in relation to effective rates against all currencies rather than against the dollar alone. This last practice began to emerge spontaneously after the realignment of rates in 1971, and received a further impetus from the exchange adjustments of February–March 1973. It is therefore questionable whether a symmetrical intervention system is worth the complication and efficiency cost it involves.

4. National Autonomy and Collective Decision Making

An SDR standard based on the elements discussed above—exchange-rate flexibility, allocations of SDRs, commitments by participants to make settlement of imbalances only in SDRs, and perhaps also to hold their

reserves entirely in SDRs—is sometimes said to be impractical or to involve excessive inroads into national sovereignty. The remainder of this essay discusses a number of objections and difficulties that have been raised, and draws a distinction between effects on national interests or national autonomy and effects on particular institutional arrangements and private interests.

Criteria for Exchange Adjustment

International criteria for the determination of exchange parities, and international rules specifying the form in which reserves should be held and imbalances settled, both appear superficially to involve a reduction in autonomy of national agencies vis-à-vis the international community. In both cases, however, this impression results from using a dubious standard of reference. In exchange adjustment, individual countries cannot in the nature of the case have full control over their exchange rates with other currencies, since they are constrained by potentially conflicting actions on the same rates by the other monetary authority involved. (The myth of national sovereignty over the exchange rate, codified in the key IMF Article that limits the right to propose a change in parity to the country concerned, seems to have grown out of the quite different proposition that exchange rates should be adapted to domestic economic circumstances rather than the other way round.) Collective criteria that require adjustments of parities that are manifestly undervalued or overvalued cannot be said to reduce national autonomy in any meaningful sense, since no single country can count on maintaining a disequilibrium exchange rate in the face of determined opposition from other countries. (This assumes, of course, that the criteria are concerned with the external results of whatever domestic policies are being pursued, rather than with the policies themselves.)

Prescribed Reserve Composition

The case of prescribed reserve composition is rather different. Here the interaction that occurs when individual actions are unconstrained by collective agreement does not limit countries' freedom to hold reserves in the form they choose. Rather, the interaction involves various side effects—instability of the reserve system, the buildup of cumulative disequilibria—that the collective scheme is designed to avoid. The collective constraints are necessary components of the scheme and must therefore be seen as the individual cost—in terms of foregone freedom of choice among the original reserve assets—that is paid for the collective good in the form of the superiority of the new reserve system. In any proper assessment, the price tag and the benefits it buys should be

looked at together. The initial introduction of SDRs with no such price tag probably helped to obscure the appropriate point of reference for the full SDR standard. In a reformed SDR system, the benefits should be "internalized" as much as possible by restricting their availability to participants that accept the associated regulations designed to protect the system. Thus allocations of SDRs could be restricted to countries that adhere to agreed rules on reserve holding, exchange-rate adjustment, etc.

What is the real cost to a national economy of abjuring holdings of reserve currencies in favor of SDRs? Special issues of SDRs against official holdings of foreign exchange would bear interest to the holders, the interest payments being met from payments by the former reserve centers on their consolidated liabilities. If equilibrium interest rates were paid on SDRs, there is no reason to expect any direct interest cost for reserve holders (nor any burden on the former reserve centers).

The only other potential cost likely to be significant in national welfare terms arises from side effects on commercial lending. Small countries typically hold exchange reserves with a commercial bank, and these can take the form of a "compensating balance" that provides access to bank credit on terms more favorable than would be available if the balance had to be withdrawn from the bank and kept in SDRs. Cooper (1972) makes much of this potential loss and asks why small countries, which typically are no larger than multinational firms, should "be denied the access to efficient financial markets that firms enjoy." But this denial may be more than offset by additional benefits derived from rules on reserve holdings. One must again be careful to find the appropriate point of comparison. Thus Cooper makes no allowance for difference in the size of SDR allocations with and without constraints on dollar holdings. It seems reasonable to assume that these allocations will be larger with such constraints, since the absence of constraints would invite an increase in dollar reserves that would in turn leave less or no scope for SDR allocation to achieve a given target of global reserve growth. Furthermore, additional SDRs accruing to a small country will be virtually costless to the participant if not spent, whereas dollar reserves obtained by borrowing for redeposit would cost the difference between the commercial bank's lending and deposit rates. If, instead, the additional reserves are spent, the cost if they are new-style SDRs will be based on the world money-market average, while the cost if they are borrowed dollars will be based on the credit standing of the individual country. The smaller and poorer the country, the bigger the differential in favor of SDR finance, so that it is precisely the poorest countries that will benefit most from *not* having to be treated like medium-sized international firms in their external financing. Of course, comparative interest costs are

not the only relevant consideration; one creditor may be preferred to another. But it is not obvious that, for the governments of less-developed countries, the question, "Who'd you rather owe, the Chase or the Special Drawing Account?" would always or typically be answered in favor of the former.

Nor is it clear that this switch of reserve financing from the commercial-bank sector to the international public sector would entail the "considerable efficiency loss" asserted by Cooper. The efficiency effects could be in either direction, depending on the balance between gains from the lower resource costs of providing finance through the SDR account and losses derived from (a) any misallocation of funds and (b) any reduction in the supply of credit from commercial banks through the "Cooper effect." The latter, moreover, would be smaller than the gross effect he assumes, to the extent that drawings on additional SDR finance make the countries concerned less creditworthy for additional bank finance. The effects of reduced access to commercial-bank finance could also be offset by extending the official swap network to a larger group of countries, though this could be done independently of decisions on the SDR and reserve-currency regime. For an outline of an extended swap network within the IMF, see Hirsch (1972b).

If the basis of comparison applied above is correct, it would be wrong to conclude that limitations on holdings of reserve currencies in the context of the SDR scheme are disadvantageous to the small and less developed countries. And, to the extent that these limitations would indirectly promote a link between SDR allocations and development aid, the point is reinforced.

While the extension of the reserve role of SDRs could curtail the use of the dollar in some private transactions, as well as in official use, external private holdings of dollars are likely to remain disproportionately large, at least for some time, and the potential for movements of dollars between private and official hands would tend to increase the magnitude of fluctuations in the U.S. balance of payments on the standard official-settlements measure. This asymmetry, as Cooper (1972) emphasizes, would need to be offset by correspondingly large financing facilities available to the United States to prevent intolerable constriction of its reserve position. These facilities could take the form of special swap credits related to the size of external holdings of the dollar.

The best and perhaps the only effective safeguard against excessive use of such credits would be a sufficient degree of exchange-rate flexibility (Hirsch, 1972b). The United States cannot be expected to renounce its continuing access to dollar financing for its payments deficits without assurance of *both* ample alternative reserve and credit availabilities *and*

an adequate degree of exchange flexibility. Both have been resisted at least in principle by the Europeans, who now have to decide whether the threat of a formalized dollar standard—or, at least, the continued official inconvertibility of dollars—is still more unpalatable.

The Area of Collective Decision Making: Summary

The analysis above suggests that a “tight” SDR system, while it entails a number of important collective rules, can be kept reasonably clear of substantive inroads into national economic sovereignty. In the same spirit, a considerable amount of automaticity can be built into the system, reducing the political strain on collective decision making.

The position may be summarized as follows:

Exchange rates. Some collective overview is required, but it need not imply constraints more severe than those implied by potential conflicts in an unregulated system.

Limitation on reserve currencies. This is the price of improved stability and smoother adjustment under an SDR system. Substitution of SDRs for foreign exchange in official reserves need not involve losses in terms of interest costs or of accessibility to funds when needed. As regards long-term security, furthermore, access to assured drawing rights in the IMF (comprising gold-tranche facilities in the General Account, and SDRs themselves) is preserved even when the countries involved have been engaged in wars and major diplomatic disputes, whereas holdings of foreign exchange, as well as earmarked gold, have traditionally been blocked or seized in wars involving the reserve center concerned.

Associated swap credits. These should be available as of right for financing of deficits in exchange markets, as is presently the case for credits provided bilaterally and on a regional basis between central banks.

Allocation rate of SDRs. Collective decisions could be set or constrained by general guidelines, in order to minimize the burden placed on collective decision making. Thus the guideline could provide that the annual rate of SDR allocation would be set at the average rate of growth in world trade over a specified previous period; this rate might be set in terms of volume or of value or at the mean of these. Flexibility could be provided for modification of the rate of allocation up to a maximum range (e.g. 50 per cent in either direction) on the basis of a positive decision. With no decision, the automatic formula would apply.

Distribution of SDRs. The distribution of SDRs should be governed by a preset formula (e.g. the present basis of proportionality to IMF quotas); the formula for any allocation to development agencies could be preset or decided ad hoc.

Interest on SDRs. The rate should be based on conditions in major money markets. Interest payments on SDRs issued against reserve currencies should be matched by payments by reserve centers.

Use of SDRs. Use should be without restriction, but a check on the cumulative growth of debtor positions could be imposed by limitations on new allocations where holdings fall persistently below some minimum of past allocations, thereby limiting the emergence of extreme creditor and debtor positions.

5. Interests, Actors, and the Elusiveness of Fundamental Reform

On lines such as the above, an SDR standard could be introduced as a comprehensive clearing-cum-credit arrangement for world payments, rather than as a world money proper, or a precursor of one. If this analysis is correct, the resistance encountered to the adoption of such an SDR standard has to be explained on grounds going beyond a conflict of national interests and protection of national autonomy in economic decision making. One present complication is the parallel declared objective of the existing authorities of EEC countries to move toward a monetary union. This objective faces substantive difficulties so great that, in my view, they are likely to overwhelm it for the foreseeable future, but the commitments to regional financial integration have in themselves added difficulties and uncertainties to the task of planning for a viable reserve system on a global scale.

Another obstacle to an SDR standard of the type outlined here has been discussed more rarely, if at all, but may be equally important. This is the simple fact that the parties involved in the necessary decisions, and in influencing those decisions, are not "nations" with national interests exactly perceived and exactly reflected in official attitudes and negotiating positions. Rather, a range of interests act, through various channels, on a range of actors.

The range of interests involved include international agencies, national official agencies, and private interests, listed in descending order of impulsion to internationalism.

International agencies. The existing international institutions have the usual institutional belief in the validity of their own role and in the desirability of measures to enhance it. But the emphasis placed on this influence in public discussion has been unbalanced, neglecting other and opposing bureaucratic and commercial pressures. Institutional influences at the international level, however, have probably biased the nature of the reforms favored away from semi-automatic mechanisms and toward centralized direction.

International agencies are themselves formulators of decisions on operation and reform of the system, so that their interests are directly represented. But their political weight vis-à-vis the other decision makers—representatives of national governments and central banks—is necessarily small.

National official agencies. Within national governments and central banks, the agencies and officials responsible for or aware of the country's stake in collective global interests will also lean toward internationalist solutions, but this leaning will tend to be limited by three influences. The first of these is narrowly bureaucratic: the professional responsibility, or the de facto accountability, of officials and agencies is often limited to the short-term and directly attributable effects of their actions. Officials are reluctant to incur specific "costs" of international commitments in exchange for diffused benefits (an effect that was discussed in section 1). The second influence is that of sectional "official private" interests: this refers to the interests of particular agencies or divisions or individual officials in maintaining or enhancing their own position in the firmament. The third influence is exerted by private economic groups, whose interests may or may not coincide with national interests.

Private interests. Private interests come into play at two main levels. The first and most clear-cut is at the "industry level." For example, banks are interested in maintaining and increasing their business opportunities. These opportunities are affected, in both directions, by regulations and arrangements concerning such matters as the form in which official reserves are held, official intervention in exchange markets, and official regulations on transfers of capital and money-market funds. Interests of private holders of gold, and of groups such as multinational corporations that are international by organization, can also be regarded as particular industrial interests. These interests are transmitted both directly through contacts with official agencies, which are particularly close in the case of central banks, and indirectly through the market influences described below.

At a second level, private pressures representing business opinion may exert a diffused influence over a variety of official policies. Institutional arrangements that make economic performance more dependent on business confidence will increase the role of business opinion in shaping—and above all in constraining—government policies. This influence can be regarded as a useful check against pursuit of irresponsible policies, if the views of the business community are seen as the best available representation of the long-term interests of all sections of the community. On a different political interpretation, it can be regarded as a one-sided exercise of class economic power.

While the views taken of this matter have differed greatly, the potentiality for influencing general economic policies via institutional arrangements in external finance has been widely recognized. This recognition has been an important background factor behind the long debate on international monetary reform. It is evidenced in the widespread concern over the effect of exchange-rate flexibility, and perhaps also of abundantly available reserves, on domestic financial "discipline": this comprising not merely questions of budgetary balance, but government policies and attitudes on wage settlements, on expenditure programs, and—in some views also—on structural issues such as the distribution of income and wealth. This connection was most aptly indicated by Thomas Bradbury, official head of the British Treasury in the 1920's, who remarked that the gold standard was "knaveproof." The fact that more recent epigrams in similar vein are not available for citation does not indicate the absence of this viewpoint as a policy-forming influence.

Although the influence exerted by these various sections and groups on international monetary arrangements and their reform has not followed a single or simple pattern, one can trace certain general characteristics that help explain the stops and starts in the evolution of the modern international monetary system. Broadly, the collective interest of nations in internationalist solutions (and the professional interests of the international institutions that emerge) tend to pull toward internationalist solutions. Sectional interests of private groups engaged in international banking business, and professional interests of national official agencies, tend to resist this internationalist pull. Both these tendencies will, of course, be influenced by the pressure of circumstances. Thus when strains on existing arrangements become so strong that the position of the private groups and public agencies involved seems likely to be supported rather than threatened by moves in the internationalist direction, such moves will receive unanimous support from all elements involved, and are then likely to take place or to be initiated. But if such strains subsequently abate, with the passing of a crisis, this source of support will be lost.

Viewed from this aspect, a consensus among the various functional interests and actors may be attained for internationalist moves in the crisis phase of the cycle of the gold-exchange standard but will be elusive in calmer or postcrisis periods, in which the unstable element is the excessive present strength and attraction of reserve currencies. This attraction may be shown analytically to store up macroeconomic trouble for the future, but it provides buoyant business and cheerful political news for the present. Schemes that sacrifice these immediate gains for the sake of long-term objectives with an academic flavor will not arouse enthu-

siasm among practical men, whether in politics, official administration, or business.

Thus in the months following the U.S. actions in the fall of 1971, a number of influential voices in the U.S. banking community were raised against a deliberate curtailment of the international role of the dollar. In the formation of consensus on the limits of the feasible in international monetary arrangements, the annual meetings of the American Bankers Association play a singular role, offering interchange between key figures in public and private sectors in conditions of surpassing luxury. At the 1972 meeting of the association in Montreal, the Chairman of the Federal Reserve Board stated that he saw both national and general advantages from the use of the dollar as a reserve currency, while recognizing that there were burdens and disadvantages as well. As indicated in section 4 above, U.S. commercial banks still continue to play an important role in financial relationships with foreign monetary authorities.

In Britain, the authorities threw their full weight behind an internationalization of reserve holdings only in 1971, by which time London's international banking business had been transformed almost wholly from a sterling to a dollar basis. In continental Europe, the widespread holding of gold by banks, businesses, and private men of means has created an influential set of interests that could be severely damaged by action at the official international level to phase gold out of the monetary system in a decisive way. Resistance in continental Europe to sales of gold from official hands into private markets, which could involve sharp falls in gold prices and ensuing capital losses to those who had taken speculative or "protective" positions in gold, should in my view be attributed at least in part to these private interests. Of course, to the extent that the threatened bankruptcies and collapses of confidence would depress business conditions as a whole, these private parties would have made their own interests the nation's also.

These comments are not intended to suggest that interests of private financial groups dominate public decisions in this area, but only that they are taken into account and act as a constraint. As such, these group influences deserve far more attention than they have received in the analysis of international finance.

6. Conclusion

International monetary arrangements are technical questions that involve political issues at various levels. At the level most frequently stressed in discussion—political differences among nations, and lack of a global political authority to resolve these differences—the political

difficulty of comprehensive reform is generally somewhat exaggerated. Technical solutions are available to limit international action broadly to the points where it is needed, while reserving maximum freedom to national authorities to implement their own choices between alternative sets of policies they see open to them. At another and "lower" level, involving political pulls within countries, international commitments may change or threaten to change the existing balance of power and influence, and will be resisted by the potential losers on that account. These intra-nation political influences are likely to be of marginal significance domestically. They may nonetheless be influential in impeding positive moves to international reform, as long as the impetus to such reform has little domestic political push behind it.

In the past two years, the inherent weaknesses of a semi-reformed international monetary system have projected comprehensive reform onto the official agenda. But comprehensive reform will not come until governments feel impelled to take an overriding view of national interests in the widest sense, rejecting parochialism vis-à-vis both the international interest and domestic sectoral interests. The recent resort to floating rates may well serve to reduce rather than increase such impulses on governments. As long as the potential benefits of international monetary reform appear diffused and thinly spread, while the costs and risks are concentrated and visible, progress is likely at best to continue in the go-stop pattern of the past half-century.

References

- Cooper, Richard N., "Eurodollars, Reserve Dollars, and Asymmetries in the International Monetary System," *Journal of International Economics*, 2 (September 1972), pp. 325-344.
- Fleming, J. Marcus, "Towards a New Regime for International Payments," *Journal of International Economics*, 2 (September 1972), pp. 345-374.
- Gilbert, Milton, *The Gold-Dollar System: Conditions of Equilibrium and the Price of Gold*, Essays in International Finance No. 70, Princeton, N.J., October 1968.
- Hirsch, Fred, "SDRs and the Working of the Gold Exchange Standard," *IMF Staff Papers*, 18 (July 1971), pp. 221-253.
- , "The Exchange Rate Regime: An Analysis and a Possible Scheme," *IMF Staff Papers*, 19 (July 1972a), pp. 259-281.
- , *Statement before the Subcommittee on International Exchange and Payments of the Joint Economic Committee*, U.S. Congress, Sept. 13, 1972b, pp. 103-111.
- International Monetary Fund, *Summary Proceedings*, Annual Meeting, 1971.
- , *Reform of the International Monetary System: A Report by the Executive Directors*, Washington, D.C., 1972.
- Johnson, Harry G., "The Link That Chains," *Foreign Policy*, 8 (Fall 1972), pp. 113-120.
- Keynes, J. M., *A Treatise on Money*, London, Macmillan, 1930.
- Oppenheimer, Peter M., "The Case for Raising the Price of Gold," *Journal of Money, Credit, and Banking*, 1 (August 1969), pp. 649-665.
- Triffin, Robert, *Gold and the Dollar Crisis*, New Haven, Yale University Press, 1959.

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 all publications as they are issued to college and university libraries and other nongovernmental, nonprofit research institutions.

Individuals and organizations—including governmental organizations that do not qualify for free distribution—can obtain **ESSAYS** and **REPRINTS** as issued and announcements of new **STUDIES** and **SPECIAL PAPERS** by paying an annual fee of \$5 to cover the period July 1 through June 30. Alternatively, for an annual contribution of at least \$25 to the publication program of the International Finance Section they can receive all publications automatically—**SPECIAL PAPERS** and **STUDIES** as well as **ESSAYS** and **REPRINTS**.

ESSAYS and **REPRINTS** ordered from the Section are \$1 per copy, and **STUDIES** and **SPECIAL PAPERS** are \$1.50. (These charges are waived on orders from persons or organizations in countries whose foreign-exchange regulations prohibit such remittances.)

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)
- 99. Fred Hirsch, *An SDR Standard: Impetus, Elements, and Impediments*. (June 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 Canterbury, *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 Colclery, *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. LVI (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. I, 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 *The Journal of Finance*, Vol. XXVI (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]

