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# 16 Lessons of the Gold Standard Era and the Bretton Woods System for the Prospects of an International Monetary System Constitution

The pre-World War I gold standard and the Bretton Woods system are the closest approximations to a constitution for the international monetary system that the world has experienced. By a constitution I mean established rules, whether or not a written instrument embodies the rules. No such written instrument embodied the gold standard rules. Individual countries determined at discrete times that their national interest would be served by assuming the obligation to live by the rules imposed by adherence to the gold standard. The international gold standard evolved gradually as an organic development during roughly three decades before World War I without any overall design coordinated by a supranational agency.

Rules were embodied in a formal constitution for Bretton Woods. Although membership in the Bretton Woods system was voluntary, there were compelling inducements, to be discussed at a later point, for countries to participate in a consciously planned arrangement for the international monetary system that was to last for a quarter of a century. The impersonality of rules without a formal constitution contrasts with the role of bureaucrats interpreting the rules of a formal constitution.

Currently two views have been advanced concerning the way to achieve a constitution for the international monetary system. One view is that stable international arrangements can only develop as individual countries adopt appropriate monetary and fiscal policies that stabilize their own economies. The alternative view is that rules governing international monetary behavior must first be agreed upon by key countries and that adherence to those rules by the contracting parties and additional countries will in turn produce national monetary stability. The gold standard appears to conform to the first view, the Bretton Woods system to the second view.

The pre-World War I gold standard and the Bretton Woods system are only two of many international monetary arrangements that were proposed over the past century and either implemented or not implemented. Earlier proposals include:

- 1) the attempt to institute a form of international bimetallism during the secular deflation of the last quarter of the nineteenth century;
- 2) the proposals the British delegation presented to the Genoa Conference that met between April 10 and May 19, 1922, with the participation of thirty-three governments, the United States present unofficially;
- 3) circumscribed monetary arrangements such as the Latin Monetary Union of 1866-78, the Scandinavian Monetary Union of 1873-1914, the Tripartite Monetary Agreement of September 25, 1936, among six participating countries, and the creation on March 13, 1979, of the European Monetary System—replacing the "snake," the European joint float.

It is instructive to review the past record. What light does it shed on the prospects for implementation of the crop of proposals that are currently advocated to reform international monetary arrangements? These range from variants of a gold standard to consolidating the money supplies of the United States, Japan, and West Germany (McKinnon 1984), to the creation of a common currency for all the industrial democracies with a common monetary policy and a joint Bank of Issue (Cooper 1984), to the issue of a new international monetary unit by private money producers (Hayek 1984).

To determine why certain international monetary arrangements were adopted and others not, section 16.1 assesses the costs and benefits of those international monetary proposals that were implemented in the past, and section 16.2 of those that were never implemented. Section 16.3 applies the lessons that emerge from the past to current proposals for international monetary reform. Which, if any, are likely to be adopted? Section 16.4 gives a summary that appraises the two views on how to achieve international monetary reform.

# 16.1 Why Were Certain International Monetary Proposals Implemented?

In the century before World War I the international monetary system was simply the aggregation of monetary preferences of individual countries. Most countries chose a bimetallic monetary system before they shifted to the gold standard during the final decades of the nineteenth century, although in some cases fiat money episodes punctuated their adherence to a commodity standard. Commodity standards imposed rules requiring each government to define its monetary unit as a spec-

ified weight of gold or silver, or of gold and silver, leaving banks free to produce money convertible into central bank money or government money issues that were in turn convertible into the standard metal or metals.

The chief benefit for countries that adopted the gold standard at the close of the nineteenth century was access to capital markets, centered in London, Paris, or Berlin. That benefit was invaluable for developing countries, which was the stage of economic maturity of most countries at the time. The chief cost, as viewed at the time, was the need to acquire a gold reserve. Except for Germany, which obtained it as the war indemnity from France in 1870–71, countries borrowed at home and abroad to get the funds with which to buy gold. The standing as a debtor the country achieved by embracing the gold standard far outweighed the interest cost of such borrowing.

With that choice made, governments did not have to coordinate policies they adopted explicitly, in pursuit of their national economic interest. Coordination was achieved by the maintenance of convertibility, which fixed exchange rates between national monetary units within narrow limits, with no external agency guiding the result. National price levels moved in close harmony. It was no myth of the gold standard world, as some latter-day critics describe it, that people, goods, capital, and money moved with reasonable freedom across national boundaries. International monetary arrangements reflected the independent choices of countries linked by market forces.

That world came to an end in World War I. I now turn to the costbenefit reasons that account for the adoption of the Bretton Woods international monetary system.

The international monetary system that was designed at the Bretton Woods Conference in 1944 reflected professional views on the defects of the arrangements that had prevailed in the 1930s. The aim was to avoid in the postwar world protectionist trade policies, exchange controls, and competitive currency depreciation that had infected the pre-World War II period. The goals of the system created by the delegates to the conference accordingly were the removal of controls on trade and payments under a system of fixed exchange rates, with adjustment of parities limited to "fundamental disequilibrium" in the balance of payments. The lending facilities of the International Monetary Fund were to be available to supplement IMF members' gold and foreign exchange reserves in order to provide liquidity to overcome temporary balance of payments deficits.

The system was designed to operate with the United States as the reserve currency country. Other countries would peg their currencies to the dollar. Stable economic policy in the United States would assure stable economic policy worldwide.

The Bretton Woods system initially conferred many benefits and imposed few costs on IMF members. The attitude of the United States was paternalistic. Wartime destruction and disruption had left countries in Europe and Asia with limited productive capacity and swelled the immediate postwar demand for U.S. exports. To promote economic recovery in the rest of the world, the United States encouraged an outflow of dollars by official U.S. aid, military spending, and private investment. The United States did not protest discriminatory tariff and quota restrictions that Western European countries applied. As Europe and Japan recovered, the U.S. balance of payments turned negative. The United States resorted to capital controls and restrictions on domestic gold convertibility but still regarded the deficit in its balance of payments as a contribution to international liquidity. The overvaluation of the dollar and the decline in the competitiveness of U.S. exports came to be regarded as an intolerable cost only at a later stage in the evolution of the Bretton Woods system.

For the nonreserve currency countries, the benefits were the obverse of the costs from the perspective of the United States. A weakening of the U.S. balance of payments was acceptable to other countries as long as they desired surpluses in their balance of payments in order to add to their dollar reserves. Once assets denominated in dollars grew in excess of the demand for them by the rest of the world, nonreserve-currency countries insisted on action by the United States to right its balance of payments. They held that accelerating inflation in the United States from the mid-1960s on undermined price stability in their economies. The system collapsed amid growing doubts that the United States would be able to maintain external gold convertibility.

Although nonreserve-currency countries were unwilling as a group to adopt the inflationary policies the United States was pursuing, the dispersion of inflation rates among them enforced more frequent changes of exchange rates. Yet countries with strong exports and weak imports resisted revaluation of their currencies, and other countries with weak exports and excessive imports delayed changes in par values until a foreign exchange crisis developed. Parity changes were basically unilateral decisions. This latitude for national discretion initially made the system acceptable but ultimately eroded its vitality.

Having considered the two global approaches to an international monetary constitution, I now turn to the reasons more circumscribed collaborative monetary arrangements have been implemented. Here the limited objectives are usually spelled out, and the advantages to the participating countries are clear. The currency areas involved are optimum in the limited sense of the goals sought.

One example is the Latin Monetary Union, effective August 1866, that was formed by France, Belgium, Switzerland, and Italy, and sub-

sequently gained additional members. The union achieved its limited objective to standardize the fineness of currencies of five-franc pieces that were then issued by each of the countries on the bimetallic standard. The coins in various other denominations as well were to circulate freely throughout the union. However, a fall in the price of silver led to the reduced coinage of standard silver pieces in 1874 and its discontinuation in 1878. Bimetallism's sun set, but the union was not formally dissolved until 1925.

A gold-based monetary union to replace the silver standard was created by Denmark and Sweden in May 1873 and joined by Norway in October 1875. The Scandinavian Monetary Union established a common currency unit, the Scandinavian krona. The monetary agreement among the three participants provided that gold coins, as well as common subsidiary silver and copper coins, were legal tender in all of them, no matter in which country the coins were minted. The three central banks accepted each other's notes at par and settled balances through a clearing system. It has been noted that no closer monetary cooperation was achieved by the union than would have been the case had each country independently adopted the gold standard (Jonung 1984). This conclusion holds if the only consideration is the fixed exchange rates the gold standard sets. However, the monetary union contributed the additional feature of eliminating national currency distinctions. The union was dissolved by World War I.

Another example of a limited international monetary constitution is the Tripartite Monetary Agreement of 1936. The initial French proposal including fixed parities and eventual return to gold convertibility was turned down by the United States and Britain as limiting their freedom to manage exchange rates. Instead, an agreement of lesser scope emerged. Following the French devaluation in September, the chief participants used their exchange stabilization funds to manage fluctuations in the exchange rates rather than permitting market forces to determine exchange rates. To prevent management at cross purposes, with risk of exchange losses from independent management tactics, the three initial participants—France, Great Britain, and the United States—signed a Gold Agreement on October 12-13. It provided that each country would cable the other two the price of its own currency at which it would buy and sell gold, and the three exchange funds would decide on a common currency to be bought for gold or sold and converted into gold at the specified price at the close of the business day. The quotations were valid for twenty-four hours, so there was no risk of exchange loss during the interval. Belgium, Holland, and Switzerland subsequently subscribed to the agreement. Not permitting market forces to determine exchange rates left intervention open to exchange losses. Agreement to convert currencies into gold without limit at an agreed but changeable price eliminated exchange risk for the authorities without sacrificing exchange rate flexibility. A student of the agreement concludes, "In 1936, each country's interests, as interpreted by the government in power, was virtually the sole criterion for public policy" (Clark 1977, p. 57). In particular, the French Popular Front found the agreement useful as a coverup for elusive economic recovery and the need for franc devaluation. For all the governments, the agreement provided "exchange market management with autonomy of national policy" (Eichengreen 1985, p. 171).

The final example of a limited international monetary constitution is the ongoing effort to achieve European monetary union. When convertibility of the dollar was formally suspended in August 1971, EEC countries sought to narrow fluctuations among their currencies vis-àvis the devalued dollar, and again, after the Smithsonian Agreement of December 1971, against the dollar and other non-European currencies. The so-called snake was intended to achieve fixed exchange parities among the EEC countries by a convergence of economic and monetary policies. The snake was not viable because the national governments were not willing to yield to the union direct monetary autonomy and control over exchange rates changes or, alternatively, to achieve close convergence of economic policies. The snake was succeeded by the European Monetary System in March 1979. The center of the system is the European Currency Unit, a basket of nine currencies, issued by the European Monetary Cooperation Fund in an amount equal to a deposit of 20% of each participating country's gold and dollar reserves to be used in settlement of international debts. Two groups of countries are allied in the EMS—Denmark, Belgium, Germany, and the Netherlands in the low-inflation group, and France and Italy in the highinflation group—with the remaining countries in between. Both sets of countries profit from the alliance. In the EMS no currency can reach the top of the permitted range without some other currency at the bottom, so Germany, for example, would not be forced to inflate because the DM was strong, without pressure on France, say, because the franc was weak to limit its inflation. The high-inflation countries periodically must devalue but limit the extent of their currency change by the revaluation of the low-inflation countries. Similarly, the extent of the revaluation by the low-inflation countries is limited, so the effect on their export growth is smaller than might otherwise be the case. It is a strength of the system that it imposes parity changes on both weak and strong currencies but does not free the weak ones from the need to adjust internal prices and costs.

A less sanguine view of the operation of the EMS has been advanced (Shafer 1985, pp. 362-65). The critic questions its contribution to macroeconomic stability and sees little indication that what he regards as

the "fundamental agenda" behind the EMS—"momentum towards greater political and economic unification in the community"—has been fostered by the system. He finds little evidence that collaboration is growing and cites capital controls and intra-EEC trade restrictions as holding the system together. The presence of such influences on the willingness of member countries to remain within the EMS would not contradict the theme of self-interest of my approach.

International monetary arrangements are implemented, the preceding global examples suggest, only when national economic interests are not subordinated. Even U.S. paternalism at the genesis of the Bretton Woods arrangements was not fundamentally altruistic. The United States intended to establish world economic relations according to its lights for a brave new monetary order.

Limited international monetary agreements are adopted when the commitments by the participants are in their short-term interest. The proposals that were implemented did not encroach on the independence of participating governments to formulate domestic policies. Individual governments retained freedom of action, constrained only by the commitment each had made with respect to a well-defined external monetary arrangement.

## 16.2 Why Were Selected International Monetary Proposals Not Implemented?

One failed attempt to design a constitution for the international monetary system was the campaign to institute a form of international bimetallism during the last quarter of the nineteenth century. International conferences in 1878, 1881, and 1892, the Gold and Silver Commission in England in 1886, and a Silver Commission in Germany were organized by proponents of bimetallism who touted the system for its virtue, compared to a monometallic system, in reducing commodity price fluctuations. The attempt to induce nations to give up the gold standard for a bimetallic standard offered that benefit, but the proponents could not effectively counter the arguments of the opponents. The countries of the world that had recently demonetized silver in response to enormous increases in the supply of silver were unconvinced by the intellectual demonstration that substitution between monetary and nonmonetary uses of gold and silver would bring the market ratio of gold to silver into equilibrium with the mint ratio. Actual experience instead indicated that a bimetallic standard alternated between a monometallic gold standard and a monometallic silver standard. Advocates of bimetallism, who included silver mine owners, debtors, farmers, and politicians representing these constituents, were regarded as inflationists rather than as seeking a stable price level. Their influence in the United States was potent enough to increase the deflationary pressure on the economy. No other country was subject to equal agitation to force restoration of a monetary role to silver. In the event, the enormous increase in gold output that began in the 1890s ultimately produced a 40% increase in prices between 1896 and 1913 and doomed the bimetallism initiative.

The other failed attempt to restructure the international monetary system that merits comment was the set of proposals that the British delegation presented to the 1922 Genoa Conference of thirty-three governments (Federal Reserve Bulletin, 1922). The objective of the proposals was to restore the international monetary system that had existed before the war, with London at the center, and nonreserve center countries authorized to hold their reserves partly in foreign exchange. A global approach to the international monetary system was rejected by the conference, mainly owing to U.S. opposition expressed by Benjamin Strong, the key figure at the time in U.S. international as well as domestic monetary affairs. One of his objections centered on the conflict between the Genoa proposal that monetary policy should attempt to limit fluctuations in the purchasing power of gold and a central bank's duty to maintain domestic monetary stability. He noted that "the regulation of credit for the purpose of maintaining the purchasing power of gold or the parity of currencies would imply that the nation which had a discount on its currency should undertake, through its bank of issue, to bring about a contraction of credit and currency; or, as in the present case, the United States with its currency at a premium the world over, should undertake, through the Reserve Banks, to regulate credit policies as to expand credit and currency to a point where the value of our currency would decline and consequently other currencies would approach the value of ours" (quoted in Clarke 1967, p. 37). The proposal had "an ominous sound to" Strong. In addition, he wanted assurance that the conference would not place the United States in the position of "handing a blank check" to impoverished countries or their banks of issues or governments with disordered finances. It was clear to Strong that the policies of central banks would "be dictated by the interests of their respective governments rather than by purely monetary considerations" (Clarke 1967, p. 40). As a result, under Strong the United States dealt with monetary stabilization problems only on a country-by-country basis.

One conclusion that emerges from investigating the fate of defeated international monetary proposals is that they were judged not to serve national interests. The intellectual case supporting a proposal may not be convincing, as happened to the proposal to restore bimetallism. The existing deflationary experience would have had to be far worse and the resurgence of gold output much more delayed for bimetallism to

have won the day. The Genoa proposals got nowhere because the United States perceived them as undermining its independence to formulate domestic policy.

As already noted, international proposals that have been implemented have not encroached on national sovereignty in fiscal and monetary matters. Bretton Woods mustered support, given the kinds of inducements to countries to participate that that system created, while imposing few restrictions on the freedom of action of member governments. Modest international monetary proposals that demand surrender of only limited sovereignty, as in the Latin Monetary Union and the Tripartite Agreement, are also workable. Whether the EMS is the harbinger of a far-reaching integration of national economic policies remains to be seen.

### 16.3 Prospects for Implementing Current International Monetary Proposals

Padoa Schioppa has contrasted the shift in the 1970s to emphasis on rules for domestic macroeconomic policy—targeting money aggregates rather than fine-tuning money growth, and pressure for a constitutional amendment to achieve a balanced fiscal budget—and the shift to emphasis on discretion for international macroeconomic policy, particularly the conduct of exchange rate policy (Padoa Schioppa 1985, pp. 332–34). In the international sphere, however, the shift is not unambiguously a movement from rules to discretion. Had a shift from fixed exchange rates to pure floating occurred, it would not have been accurately characterized as a movement from rules to discretion but rather from one rule to another. It is the shift to discretionary management of the floating system that is the true contrast with the tendencies to introduce rules in the domestic sphere.

Critics of the managed floating exchange rate system include both those who favor and those who do not favor rules to correct what are perceived to be imperfections of the system. The latter endorse more discretionary intervention than has been practiced. The indictment of the existing system is threefold: allegedly it has produced large and prolonged misalignments of exchange rates, the prime example being the dollar's rise from 1980 to 1985, which, it is claimed, has misdirected trade, direct investment, and international capital flows; has led to the accumulation of balance-of-payments deficits by the United States with unfortunate repercussions on the rest of the world; and fostered increased volatility of exchange rates under floating that has encouraged speculation, though research fails to show that it has hampered trade.

Those who argue for more discretionary intervention applaud the September meeting in New York at which officials representing the Group of Five committed themselves to greater cooperation to drive down the external value of the dollar, as if market forces were not already producing that result. A favorite extension of the interventionist approach is the establishment by the authorities of target or reference zones that would define the range of parities that ought to exist (Williamson 1983; Roosa 1984). When nominal market exchange rates deviate from the target zones that are themselves alterable, the authorities would decide on intervention moves. I exclude this type of proposal from consideration here. Discretion has a large role in this approach. I limit my discussion to proposals that would impose some type of rule on international monetary behavior. Nor am I concerned with the validity of the criticisms of the managed floating exchange rate system as it exists. My interest is only in the probability that governments will agree to live by the rules that would be established by the sample of current proposals that I have chosen—by Hall, McKinnon, Cooper, and Hayek.

Various proposals exist (Laffer 1980; Paul and Lehrman 1982; Mundell 1981) to return to a conventional gold standard or Bretton Woods System—the dollar would be defined as a specified weight in gold, and the United States would announce the price at which it would buy and sell gold. Presumably an international gold standard could be created if other governments adopted one of these proposals along with the United States. The proposals differ mainly in the choice of the price of gold to be announced. The costs and benefits of adopting the gold standard that prevailed at the close of the nineteenth century are today irrelevant. Neither the costs of accumulating a gold reserve nor the benefits of capital market access dominate the debate about the merits of restoring the gold standard. The issues today center on the stability of the purchasing power of gold, the adequacy of additions to the monetary gold stock in the context of a duopoly of gold producers of uncertain political reliability, a host of technical difficulties in selecting the price of gold to be pegged, determining exchange rates, and linking domestic money supplies to gold. The ultimate hurdle, however, to a return to an enduring and effective gold standard is the resistance of political authorities and of modern democracies to precommitment and to forswearing of discretion. No country has expressed an interest in returning to a conventional gold standard.

Less conventional proposals for a gold standard also have been suggested. One would eliminate national monetary units. Each country would issue coins of different gold weights, and prices would be quoted in weights of gold. In Hall's proposal, national monetary units would continue to exist, but the promise to pay, say dollars, would be a promise to pay gold or something of equal purchasing power. Under this proposal presumably someone who borrowed \$100 in 1896 would have been required to repay \$140 in 1913.

Hall describes his variant as a free market gold standard but dismisses it as no less flawed than the conventional variants. Although systematic adjustment of the gold content of the dollar could remedy the instability of the purchasing power of gold, the necessity for that adjustment detracts from the virtue of the gold standard as an automatic stabilizer of the economy. Hall also faults the gold standard for creating an inefficient demand for precautionary balances in gold by banks and other financial institutions. He associates pressures to suspend the gold standard in the short run and abandon it in the long run with runs on reserves. An international monetary system clearly could be organized on gold standard lines if countries regarded the benefits of such a system as worth the loss of national monetary independence.

McKinnon envisions a new international monetary standard. During a transition period the United States, Germany, and Japan would each choose a domestic money supply growth rate to stabilize nominal exchange rates vis-à-vis the other two currencies. The three countries would then jointly target world money growth at a rate that would be determined by estimated future GNP growth, trend velocity, and the price trend of nontradables in each. Consequently, a weighted sum of the money stocks of the three countries would grow at a noninflationary rate. If exchange rates for a given country appreciated, that would indicate the need for that country to expand money growth, compensated for by a contraction of money growth in the other two countries. World money stock would grow at the predetermined target rate, and the world price level would be stabilized.

At a subsequent stage, the world would return to pegged exchange rates, and the weighted sum of the money stocks of the three countries would grow at a constant rate.

The basic notion of a collective monetary rule underlying the transition phase of McKinnon's proposal is hard to credit. It reflects his acceptance of two propositions for which empirical evidence is far from robust: inflation is the product of world, rather than domestic, money growth; and the demand for domestic currencies has been destabilized by shifts in demand for foreign currencies. Could the United States, Germany, and Japan—a trio without common cultural or political ties (unlike EMS constituents)—agree on a target rate for monetary growth of a combined aggregate? Would each country agree to alter its monetary growth rate to offset the opposite changes in money growth rates of the other two countries, particularly if the alteration conflicted with domestic goals? Since U.S. money growth would have the greatest weight, it would require a 1.3 percentage point decline in German and a 2.5 percentage point decline in Japanese money growth to offset a 1 percentage point increase in U.S. money growth. Policymakers are likely to respond as Benjamin Strong did to the Genoa proposals. They may find disturbing simulations of the second stage of the McKinnon rule based on equations for the internal macroeconomic structure of the United States, Japan, and the rest of the OECD region (McKibbin and Sachs 1986). The reported results include standard deviations of output, inflation, the current account, and the fiscal deficit, given shocks to aggregate demand, prices, velocity. Unless the shocks across countries were negatively correlated, the simulations indicate destabilizing effects for the countries whose money stocks decline in response to expansions elsewhere.

Nothing in the historical record or in current developments suggests that policymakers in individual countries will take actions in line with some blueprint that sacrifices apparent independent national interests. Currently the United States is exerting pressure on Germany and Japan to push for higher growth as a way of increasing their imports and shrinking their trade surpluses. Both countries are resisting for fear of a resurgence of inflation and loss of their export markets. If agreement is not at hand in this instance, would not rules that enforce such action be rejected?

McKinnon does not date the time for realizing the second stage of his proposal. Cooper dates his proposal as a possibility for 2010. He visualizes a world monetary union by that time with a single central bank, the rule governing member nations the simple one that they forswear independent monetary policy.

Cooper believes that one-world money is the answer to the inevitable decline in the role of the dollar as the U.S. role in the world shrinks. In addition, national monetary policies will be undermined as improvements in telecommunications speed capital and even goods flows across national borders. Fiscal policy would be set independently by each country in the new regime, but deficits would have to be financed, beyond a prorated share of the world central bank's open market purchases, by borrowing on the world capital market in the one common money. World monetary policy would be set by the board of governors of the world central bank—probably finance ministers—but would not be responsible to any one legislature.

Cooper advocates two transitional steps on the path to the one-money regime. One is to enhance the usefulness of SDRs so that they might eventually become the one-world money. The way to do so would be to give SDRs a role as a private transaction money. The other transitional step Cooper advocates is to enhance the importance of exchange rates in setting monetary policy. The target zone arrangement meets with his approval. In the one-money regime balance-of-payments adjustments would be no more difficult than regional adjustments in the United States at present.

The analogy to monetary union that the United States represents would apply to the world if, like the U.S. federal government, there

were a comparable world federal government. In the absence of such a central political unit or any provision for the emergence of such a unit as a precondition for monetary unification, it is hard to conceive of the impetus for the creation of a one-money world. No one would dispute the argument that a single money issuer for the world, provided that it maintained a stable, noninflationary money stock, would improve the efficiency of money. Cooper's vision does not extend to the need for a rule binding the world monetary authority. Would a single monopolistic monetary authority possess the information to govern the provision of the appropriate supply of money without a rule? As Cooper himself acknowledges, unlike McKinnon, he is not concerned to assure behavior by monetary authorities either in a nonunified world or in his projected unified world to provide steady, noninflationary money growth. His main concern is to limit movements of real exchange rates in the existing world economy, and discretionary actions by authorities to achieve that goal are quite acceptable to him pending the arrival of his utopia.

Hayek's proposal to restructure the international monetary system is that governments refrain from issuing and regulating money. Instead, competitive private firms would be free to issue money convertible on demand in whatever amounts of competing moneys would buy, at market prices, collections of internationally traded commodities whose values they would pledge to stabilize. Each issuer would undertake to stabilize the value of his money unit in terms of the particular collection of raw materials defining the standard unit. Arbitrage would serve to eliminate any difference in value between the monetary unit and the standard unit. During a transition period, privately issued money units would be introduced as transferable deposits redeemable in government currency until such time as holders of money abandoned that currency and private issuers were allowed to provide currency.

In a world with competing private issuers, the money units would not be identified with particular geographical areas. In this world, as in Cooper's, balance-of-payments problems would not exist. Regional differences in distributions of relative and absolute quantities of money would arise but would not cause any more difficulties than do similar redistributions within a given territory.

In Hayek's scheme money producers find it in their self-interest to offer stable money with a sphere of circulation encompassing the globe. Different monetary units would circulate only so long as they successfully maintained their value in purchasing power. If a money depreciated, courts would determine the amount of some other currency to which holders were entitled and oblige the unsuccessful money producer to discharge his debt to them. Even if holders of a particular money were not compensated for the shrinkage of the value of their

holdings, the damage would not extend to the rest of the community. Hayek thus sees the supply of money as market regulated.

Many questions arise in connection with Hayek's scheme. Wouldn't the information costs for agents confronting a variety of competitive moneys based on a variety of units of account be an overwhelming objection? It is not clear what fixes the price level in the competitive money order if money producers promise only to stabilize the price level of alternative collections of commodities. Money producers would presumably hold precautionary reserves, but Hayek does not say in what form. What assets would money producers hold as the counterpart of their liabilities that would enable them to meet their commitments? But these questions do not touch the essential objection to his scheme, which is, What would induce governments and their policymakers to give up a right that they have claimed and exercised for centuries? Hayek counts on the market to eliminate governments if their money issues cannot compete in providing purchasing power equal in stability to what he expects private money producers to provide. Since not even the catastrophe of hyperinflation has hitherto led governments to yield to the private sector their power to determine money growth, or the private sector to demand such abnegation by governments, in what circumstances would such a revolutionary change be conceivable?

The four proposals for restructuring the international monetary system based on the conventional or Hall gold standard rule, the Mc-Kinnon rule of a collective monetary growth rate, the Cooper rule of a one-money world subject to the decisions of a supranational board of governors, or a Hayek rule of no government involvement in money creation are all far removed from the kinds of historical rule-based global or limited international monetary agreements reviewed here. The proposals do not deal with the self-interest of policymakers and governments to preserve existing power over the choice of domestic objectives, or over which policies to adopt to achieve those objectives. If policymakers believed that monetary policy had no effect on employment in the short run or prices in the long run, then they might agree to give up control over monetary policy. But even then, they clearly believe that monetary policy has importance in managing interest and exchange rates. There is no indication currently or in the past, except possibly during the heyday of the Radcliffe view, that governments and their policymakers are not or have not been jealous of their power to determine national monetary policy.

Political unification would have to be well advanced for governments and their policymakers to be willing to yield monetary sovereignty to gold, a coalition of countries, a world central bank, or private money producers. The benefits are of the pie-in-the-sky genre. The costs are down-to-earth. I conclude that the prospects for implementing the current proposals for a rule-based international monetary system are dim.

### 16.4 How to Achieve an International Monetary System Constitution

The literature on international macropolicy coordination and cooperation has been growing apace. It is not primarily directed to the notion of a rule-based international monetary system. It rather embraces the view that international macropolicy coordination is justified on grounds analogous to market failures—the existence of public goods, externalities from the action of one government to the environment of another, monopoly power of certain governments—and lags in reaching equilibrium that could be shortened by coordination (Cooper 1985). The types of studies reported in the literature include the case for coordination given a positive—rather than negative—pattern of international transmission, game and control theoretical models of interaction among countries, dynamic versus static models of coordination. A sour view of these studies is that their results are either "rather obvious or rather obvious nonsense" (Marris 1985, p. 380).

Essentially the studies bear on the question whether cooperation between governments would result in higher real output and lower inflation worldwide than would independent policies of governments to achieve those goals. The authors of the studies tend to believe that representatives of the industrialized democracies working in tandem can nudge monetary growth rates, interest rates, exchange rates, and fiscal budgets in directions that would improve macroeconomic performance for all of them over what it would otherwise be. In their view, only the obduracy of short-sighted politicians prevents them from responding to the demands of their peers to reshape their national policies.

Even if the authors of those studies possessed the requisite information about the structure of markets in the different countries, knew the quantitative magnitude of key structural parameters, and could factor in differences in economic outlook of each country, there would still be a case against proceeding directly to coordinating policy. Divergent inflation rates, real growth rates, and unemployment rates among the industrialized democracies suggest that coordination would be facilitated if each country initially concentrated on narrowing the divergences.

In the EMS, it is true, divergences have not destroyed the monetary union, but there is otherwise greater homogeneity among the members and willingness to accept West Germany as the dominant country that characterizes the Summit group of countries.

The literature on coordination therefore leads me to the conclusion that the way to achieve an international monetary constitution is first to persuade individual countries to accept such a constitution. If persuasion fails on the individual basis, a constitution for the international monetary system is illusory.