

KEY EXCHANGE RATE REGIMES: A CONSTITUTIONAL PERSPECTIVE

Thomas D. Willett

After a decade and a half of experience with the widespread use of flexible exchange rates among the major industrial countries, we have learned a great deal. But disputes about exchange rate policies and calls for international monetary reform are as frequent and heated as ever. The range of views about flexible exchange rates has narrowed somewhat, and the experience clearly has not been as disastrous as feared by many critics who foresaw a repeat of the disasters of the 1930s. Nor have flexible exchange rates been a complete solution to international monetary issues by eliminating the need for international monetary cooperation and by generating international monetary stability as the strongest supporters had hoped.

While supporters can plausibly argue that floating rates helped the world economy survive severe strains, few can be happy with the absolute level of performance of our international monetary arrangements over the past decade. Thus, continuing interest in evaluating alternative exchange rate policies and regimes and in considering proposals for reform is quite understandable.

Developments in Exchange Rate Analysis

While the views that are held by international monetary experts about preferred exchange rate arrangements have narrowed only modestly, our understanding has improved considerably about how to analyze exchange rate issues. I hasten to add that the previous statement is meant in the broad sense of conceptual frameworks in which exchange rate issues can be analyzed most fruitfully. On the other hand, at the level of more specific questions such as how are

Cato Journal, Vol. 8, No. 2 (Fall 1988). Copyright © Cato Institute. All rights reserved.

The author is the Horton Professor of Economics at the Claremont Graduate School and Claremont McKenna College and Director of the Claremont Center for Economic Policy Studies.

exchange rates determined or what are optimal coordination strategies, our advances in theoretical and exchange research have often left us feeling less, rather than more, sure that we know the answers. As theoretical models of exchange rate determination and exchange rate dynamics have proliferated, we have gained a much better appreciation of the complex issues involved in discussing equilibrium levels and time paths of exchange rates. But we have gained little in our ability to empirically implement such analysis.

A number of models initially appeared to fit important aspects of the data well, but in each case more systematic testing failed to confirm their robustness. Indeed we can argue that a major message of the recent exchange rate literature, with its emphasis on the role of expectations and news and on the delineation of numerous channels of influence on exchange rates, is that we should not expect to be able to give very precise empirical implementation to exchange rate models. We can still argue that there were many good reasons, having largely to do with U.S. economic policies, why the dollar fell substantially in the late 1970s and then soared in the early 1980s. However, we can say much less about the short-run dynamics of exchange rate behavior.¹

Perhaps the major analytical lesson we learned is the severe danger of analyzing exchange rate issues in isolation. Now we better understand that the effects of exchange rate changes on major economic variables such as price levels, volume of international trade, and domestic employment will often depend crucially on the causes of the changes.² This understanding applies not only to the quantitative magnitudes of the effects but also to their direction in terms of whether they tend to have a stabilizing or a destabilizing influence. As a result of this recognition, debates over issues such as the inflationary effects of fixed versus flexible exchange rates can rest on much firmer foundations than in earlier periods.³ Modern analysis also makes us wary of sweeping generalizations about the effects of fixed versus flexible rates. As is emphasized in the literature on optimum currency areas

¹I am not arguing that theoretical and empirical research on exchange rate dynamics and speculative behavior is a waste of time, but rather that we should not expect highly accurate short-term forecasts or strong consensus on equilibrium levels of rates to emerge from this process. For recent analysis and references to the literature on exchange rate modeling and forecasting, see Arndt, Sweeney, and Willett (1985); Bhandari (1987); Bhandari and Putnam (1983); Bigman and Taya (1983); Bilson and Marston (1984); and Jones and Kenen (1985).

²See Arndt, Sweeney, and Willett (1985) and Willett (1982).

³See Corden (1977), Crockett and Goldstein (1976), Darby et al. (1983), and Willett and Wolf (1983).

and on optimal stabilization policy in open economies, evaluations of the effects of alternative exchange rate regimes can vary substantially depending on the assumptions made about the patterns of economic shocks, structure of the economy, and the weights given to different policy objectives.⁴

Such analysis also highlights another consideration, which will be the central focus of this paper. One cannot usefully analyze the performance of an exchange rate regime independent of its interrelationships with national monetary and fiscal policies. A paper written 15 or 20 years ago with a title such as "Key Exchange Rate Regimes" would probably have focused primarily on the various forms that exchange rates arrangements might take, from the extremes of genuinely fixed and freely floating rates through various intermediate forms such as the adjustable peg, wider bands, crawling pegs, and managed floating.⁵ Today that list would be expanded to include proposals for reference rates, target zones and indicator systems, and alternative intervention strategies for managed floating.⁶ While these issues are clearly important, they are not of primary concern for those interested in how we can best reduce international monetary instability.

National economic policies must be considered in any meaningful analysis of alternative exchange rate regimes. The same set of exchange rate arrangements may work well or poorly depending on the behavior of other economic policies. We now widely recognize, for example, that fixed exchange rates are just not workable among countries that insist on maintaining highly divergent domestic monetary and fiscal policies. Arguments for fixed exchange rates are often made on the (frequently implicit) assumption that they will be accompanied by internationally coordinated, national macroeconomic policies. We must carefully spell out and analyze the mechanisms by which such policy coordination might come about.

In examining alternative exchange rate regimes, then, we need to distinguish between two types of analysis: (1) the mode of analysis designed to show how alternative exchange rate arrangements may be expected to operate under different patterns of economic policies and shocks, and (2) the mode of analysis focusing on the likely patterns of policies and how these patterns may in turn be influenced by the exchange rate regime and policy understandings that go with

⁴See the analysis and references in Arndt, Sweeney, and Willett (1985); Buiter and Marston (1985); Jones and Kenen (1985); and Willett (1985b).

⁵See Halm (1970).

⁶See Frenkel and Goldstein (1986), Kenen (1987), and Williamson (1986, 1987).

it. It is in this second mode that political economy becomes crucially important for analyzing both the likely course of unconstrained national policies and how alternative exchange regimes are likely to influence the course of these policies.⁷

International Monetary Reform: Conflicting Traditions

There have been two strong and conflicting traditions in the literature on alternative exchange rate systems and international monetary reform. One tradition views the major objective of exchange rate and international monetary arrangements to be to interfere as little as possible with national macroeconomic policymaking. The other views the international monetary system as a much-needed source of discipline over otherwise unconstrained national policymaking.⁸ These views differ, of course, on whether they see national economic policymaking as taking place more in line with the public interest view (typically assumed, for example, by Keynesians) or with the perverse political pressures view held by many public choice analysts and hard money advocates.⁹

The public interest view of the operation of the political process, combined with the (Keynesian) theory of economic policy as applied to open economics, generally leads to optimally managed flexibility as the preferred exchange rate regime (for countries large enough to make an independent currency viable),¹⁰ although the content of optimal management strategies is highly model specific. Those concerned with using the international monetary system to provide discipline over national macroeconomic policies have, in turn, generally favored a gold standard or some other form of fixed exchange rate system.

Unfortunately, the writers in these two traditions have paid relatively little attention to each others' analysis. Compared with the volume of international monetary writings in these two traditions, relatively little analysis has been presented from the perspective of an intersection of these views. This perspective sees a need for

⁷For examples and references to the literature that takes political economy approaches to domestic and international monetary relations, see Cohen (1977), Lombra and Witte (1982), and Willett (1983, 1988).

⁸For discussions and references to the literature on the discipline debate, see Willett and Mullen (1982).

⁹On these different views, see Buchanan and Wagner (1977) and the papers by Willett and Banaian in Willett (1988).

¹⁰See Tower and Willett (1976).

institutional reforms to discipline the domestic policymaking process, but questions whether international rules are the best way to attempt to impose such discipline.¹¹ (Different dimensions of the meaning of the best way will be discussed later.)

Conceptually, we may distinguish among several different types or levels of political analysis needed to "close" the analysis of alternative international monetary regimes. One, of course, involves considering whether or not domestic political pressures tend to generate noneconomically optimal economic policies from the perspective of a closed economy.¹² A second type, quite unrealistic in my opinion but commonly adopted (often implicitly) in international monetary literature, assumes political problems only at the international level with self-interested national governments tending to engage in suboptimal (from a global perspective) levels of internationally cooperative actions.¹³

Where political problems are assumed at both the national and international levels, the analysis can become quite complex. In my judgment this third type of political analysis deserves much greater attention. Depending on the issue in question and the nature of the political forces assumed to be at work, we see that "biases" at the national and international levels may be either additive or offsetting. Judgments on this issue may also differ depending on the criterion for judgment adopted. For example, it is frequently argued that nationalist concerns will tend to lead to an underprovision of short-run exchange rate stability. On the other hand, recent analysis of political business cycles and other incentives for time inconsistency problems can generate pressures for self-interested national governments to seek arrangements for short-run exchange rate fixity, which would increase the incentives for unconstrained national macroeconomic policies to follow strategies with an inflationary bias.¹⁴ One lesson that we certainly should have learned is that greater short-run exchange rate fixity by itself is not a sure contributor to greater longer-run stability.

Political analysis can interact with economic analysis on issues of both feasibility and enforcement. From one perspective, discussions of what is currently politically feasible may be used to narrow the

¹¹Milton Friedman has long advocated such an approach with his emphasis on domestic monetary rules. For recent analysis along these lines, see Genberg and Swoboda (1987), Gutowski (1978, 1979), and Willett (1987a).

¹²For analysis and references to the literature on this question, see Willett (1988).

¹³A number of examples of such analysis may be found in Buiter and Marston (1985).

¹⁴See Rogoff (1985), Vaubel (1986), and Willett and Mullen (1982).

range of policy options to be seriously considered in the short term. From another, analysis of political realities can be crucial to discussions of the need for possible institutional reforms to change the operation of, or to constrain the outcomes from, the political process. Complementary to such analyses are considerations of the likely operation (i.e., enforceability and workability) of institutional reforms, if adopted, and of the political feasibility of adopting such institutional reforms in the first place. Unfortunately, there often is a tradeoff between the latter two considerations (i.e., the more binding a reform is likely to be, the more difficult it will be to reach agreement on its adoption). Thus, for example, our historical experience suggests that it is much easier to get agreement among governments for fixing their exchange rates in the short run than it is to negotiate the constraints on national macroeconomic policies that would be necessary to make these exchange rates sustainable over the longer run.

There is an urgent need for all three types of political analysis. No one of them is the sole correct level of analysis. What is important, however, is that analysts are clear on what type of analysis they are presenting. There are more than enough grounds for disagreements over particular political analysis, just as with economic analysis, without further adding to the scope for controversy by failing to make clear the specific type of analysis and the political-economic interrelationships being considered.

This difficulty has frequently occurred with proposals for various exchange rate and monetary policy rules. Some proposals have clearly been motivated primarily by concerns about optimal policy strategies, while others have been more concerned with promoting discipline or rules of the game to limit the use of "beggar-thy-neighbor" policies. Often, however, the motivation for particular proposals has not been made sufficiently clear.

Rationales for Alternative Exchange Rate Regimes

Optimal Discretion

Let us consider some major possible rationales or objectives for exchange rate regimes. From the standpoint of public interest (or ideal political process) decisionmaking, the question would be one of facilitating optimal discretionary policy responses. From a traditional Keynesian optimal policy perspective, the content of such policy strategies would include official intervention to offset destabilizing speculation and internationally coordinated monetary, fiscal, and intervention policies to optimally offset other economic and financial shocks.

Policy Rules

With imperfect information, case-by-case discretion would move toward and, in the limit, be replaced with policy rules that determine policies on the basis of estimates of or views about the average pattern of disturbances.¹⁵ These rules might become quite complicated, focusing on a large number of indicators as in some of the current indicator proposals.

When the problem of imperfect information is combined with imperfectly and internationally oriented national decisionmakers, a case emerges for forums for discussion and enforcement of internationally coordinated discretionary policies or policy rules. In the absence of willingness by national governments to cede such authority to an international body, rules limiting the range of permissible national policy actions or requiring particular policy actions under specified conditions become an attractive strategy.

Commonly proposed examples of such international rules or guidelines of a negative type are limits on the cumulative amount of or circumstances of official intervention in the foreign exchange market (e.g., prohibitions on aggressive as opposed to "leaning-against-the-wind" intervention).¹⁶ Requirements to intervene if exchange rates move outside an internationally agreed target zone are an example of a frequently proposed positive rule. With a still lower level of international cooperation, such rules might be given a presumptive role as a basis for marshaling moral suasion.

Constraint Systems

While a great deal more analysis of this issue is needed, I would conjecture that the case for focusing on exchange rates as the basis for policy rules is likely to be substantially reduced when imperfections in the operation of domestic political processes are systematically introduced. Conceptually, the discipline argument for institutional reforms presents more of a case for the imposition of constraints on policy outcomes rather than for policy rules per se.¹⁷ In other than new classical economic models, the particular form of a policy rule adopted will typically have a substantial influence on the performance of the economy (and this can occur in some new classical

¹⁵See Tower and Willett (1976).

¹⁶For examples of discussions of these issues during the Committee of Twenty Negotiations over international monetary reform during the 1970s, see de Vries (1985), Willett (1977), and Williamson (1977).

¹⁷The ideal institutional reform would be one that removes the biases in the decision-making process in the first place. For this paper I shall assume that the scope for much first-best reforms is quite limited.

models as well). Ideally, one would like a constraint system to allow economically optimal policy outcomes while limiting the scope for deviation from this outcome because of political pressures. Unfortunately, much of the literature fails to make a clear distinction between the case for optimal policy rules from the standpoint of the traditional theory of economic policy and the case for national or international constraint systems to offset political biases or beggar-thy-neighbor policies.

Converting Optimal Policy Rules to Sensible Constraint Systems

With a particular dominant type of disturbance, we may be able to achieve both the optimal rule and constraint objectives with a particular policy rule. For example, if international currency substitution and portfolio shifts were the only major sources of disturbance, then Ronald McKinnon's proposal of fixed exchange with nonsterilized intervention to determine the domestic money supply would be an optimal (or at least quite reasonable) policy rule.¹⁸ However, a domestic monetarist like Milton Friedman sees a quite different pattern of disturbance than does an international or global monetarist like McKinnon.¹⁹ Thus Friedman prefers a fixed national money supply rule for the major industrial countries, combined with flexible exchange rates among them. Likewise, gold standard advocates and Keynesians assume still different perponderant patterns of disturbances.²⁰ It is certainly difficult and probably inappropriate to try to obtain fundamental institutional reforms whose desirability highly depends on the answers to questions that are open to considerable controversy among mainstream economists. On this view one should seek to reach agreement on constraint systems that seem reasonable albeit nonoptimal to a substantial proportion of experts. Taking such a constitutional perspective also suggests the desirability of simplicity and enforceability in the design of institutional reforms.²¹ The combination of these considerations presents a strong case for domestic rather than international constraint systems.

¹⁸See McKinnon (1984, 1985) and Willett (1985a).

¹⁹While some initial empirical research did support McKinnon's view on the importance of international currency substitution for the United States, these findings did not hold up strongly in light of subsequent research. For recent critical surveys of this empirical literature, see Willett et al. (1987).

²⁰See Mayer and Willett (1988).

²¹Such a perspective refers to the analysis of fundamental rules of the game. These rules need not be formally embedded in constitutional provisions. For recent examples of analysis taking such a perspective, see Dorn and Schwartz (1987).

On the basis of simplicity and easy technical enforceability, the pure form of McKinnon's fixed-rate proposal is quite attractive. As he himself describes it, his proposal presents the basic attractive features of the gold standard rules of the game while doing away with the need to depend on the vagaries of the gold market. But after the conversion from a policy rule to a constraint system, this attraction quickly disappears. How do we allow a loose version of this approach? Systematic partial sterilization would make little economic sense and would make even less as a political rule. Mandatory nonsterilized intervention at the limits of some target zone for exchange rates would be more attractive as a constraint system. However, as with gold-based systems, such a regime would still be subject to the problems of making reasonable estimates of initial equilibrium rates and of the disequilibrating effects on domestic money growth, which would result from changes in equilibrium real exchange rates. Recent empirical studies on purchasing power parity and exchange rate behavior suggest that this is a possibility that must be taken very seriously.²²

Looking at the behavior of exchange rates along with that of many other variables makes considerable sense in the formulation of discretionary monetary policy, including discretionary behavior within a broader constraint system. The design of a sensible mechanical relationship between the exchange rate and domestic monetary policy is a quite different question. For example, consider that the dollar in 1985 was high but falling. Did this indicate a stronger case for monetary ease or tightness?

The case becomes even more difficult in looking at the relationship between the exchange rate and fiscal policy. While proposals for target zones for exchange rates were initially put forth largely to deal with perceived problems of destabilizing or insufficiently stabilizing speculation, in his recent writings John Williamson has stressed the potential role of target zones in promoting fiscal discipline.²³ A set of mechanical rules for adjusting fiscal policy in response to exchange rate movements could certainly be devised, but it seems unlikely that one would find a rule that produced desirable behavior under a plausible range of circumstances. Still more difficult perhaps would be trying to sell such a rule for fiscal discipline to national legislatures. As a presumptive guideline there could be some value to such

²²See the analysis and references in Arndt, Sweeney, and Willett (1985); and Darby et al. (1983).

²³See Williamson (1986, 1987) and, for critical analysis, Branson (1986), Cooper (1986), Fischer (1986), Frenkel (1987), and Frenkel and Goldstein (1986).

an approach, but my reading of the situation is that much stronger forms of reform are required for us to reasonably expect a substantial sustained reduction in international monetary instability. This issue of fiscally produced instability would remain a problem even under the adoption of a system of rigidly fixed exchange rates based on McKinnon's set of rules for monetary policy.

Domestic Versus International Constraint Systems

Concern with the technical feasibility of ensuring consistency among policies complements optimal policy and simplicity arguments for domestic constraint systems. The simplicity argument may be expressed relatively straightforwardly in terms of limits on the size of (possibly full employment) budget deficits and rates of monetary growth. Money growth rules could specify a range on the permissible average rate of growth of some monetary variable or allow for deviations from a target range for average rates of inflation or nominal income to force adjustment in the growth rates of a monetary variable.²⁴ With a constraint system approach, this type of feedback system need not give rise to the type of dynamic instability likely to occur from a tight short-term linkage between price and money growth variables.

Such a domestic constraint system would allow exchange rates to move consistently with underlying economic conditions. Exchange rate variability would not be eliminated, but it would be reasonable to expect that much of the dollar's plunge in the late 1970s and its surge in the first half of the 1980s would have been avoided because variability in U.S. monetary and fiscal policies would have been reduced. Residual concerns about possible excessive short-term exchange rate variability because of destabilizing speculation could still be addressed through official intervention, perhaps even geared to a soft system of target zones. Considerable analysis of the details of both domestic constraint systems and exchange market provisions would be needed to formulate the best system. But the system's essential characteristic would be that exchange market provisions would be secondary to the domestic monetary and fiscal policy constraints.

The fundamental alternative is the set of proposals under which exchange market developments drive domestic monetary and fiscal policy. Historical experience suggests that, with support from the United States, an international agreement placing considerable lim-

²⁴For discussion and references to the literature on the alternative possible forms and targets of such constraint systems, see Dorn and Schwartz (1987).

its on short-term exchange rate variability would be much easier to achieve than would the type of domestic constraint system described above. It seems doubtful, however, that effective agreement would be reached on the types of rules for domestic monetary and fiscal policy that would be necessary to make the system of short-term exchange rate fixity consistent with longer-term stability. There is considerable question whether one could overcome the technical difficulties involved in designing the quantitative specification of policy rules that would avoid dynamic instability or persistent payments disequilibrium and would overcome the forcing of changes in monetary and fiscal policy that would have serious destabilizing effects on the domestic economies.²⁵ Nor would these seem to be the types of reforms that would generate substantial political support.

Fundamental Choices in a Politicized World

While many fascinating details of alternative sets of exchange rate arrangements deserve attention, at the most fundamental level we have a choice among four types of exchange rate and international monetary regimes in a world in which biases in the operation of political pressures play a major role in the determination of unconstrained domestic macroeconomic policies.

We may have either of two variants of disciplined or constrained systems: one focused on exchange rates and the other domestically oriented. We may likewise have two types of regimes with relatively unconstrained domestic monetary and fiscal policy. These unconstrained variants may have either pegged or flexible rates in the short run, but historical experience suggests that both would produce considerable global economic instability over the long run. In a world of political economic policies, the case is strong for fundamental institutional reforms to help promote long-run economic and financial stability, including exchange rate stability.

In my judgment, for the major industrial countries we should look for greater exchange rate stability primarily as a consequence of, rather than as a means to, greater domestic financial stability. Conceptually, domestic monetary and fiscal policies can be geared to the exchange rate regime, but on grounds both of best promoting macroeconomic stability, if followed, and of the political likelihood that consistent policies actually would be followed, the weight of historical experience suggests to me that exchange rate regimes should be designed in light of domestic financial considerations rather than

²⁵See, however, Edison et al. (1987).

vice versa. If this view is correct, then the most fundamental issues concerning the design of exchange rate regimes strongly depend on the analysis of domestic monetary and fiscal policy and of institutions.

Adoption of floating exchange rates was not the cause of the acceleration of worldwide inflation in the 1970s as some have argued. Since national monetary and fiscal policies were not systematically linked in practice to obligations to maintain pegged rates, little systematic discipline was imposed, and the major U.S. pressures that generated the acceleration of inflation (associated with the financing of the Vietnam War) were initiated under pegged rates.²⁶ While it is a debatable issue, it seems likely that floating rates have generated more discipline on average than have pegged rates unaccompanied by specific linkages to national macroeconomic policies.

What seems clear, however, is that even if floating rates promoted more rather than less discipline, this discipline was still woefully inadequate. Floating rates in and of themselves are not sufficient to provide adequate financial discipline. Further institutional reform is urgently needed to place explicit limits on the range of permissible discretionary variations in national monetary and fiscal policies. While such reforms would conflict with the short-run political advantages of many powerful officials, and hence would be difficult to achieve, the reforms would be in the long-run interests of countries adopting the disciplinary measures. By reducing the export of instability such reforms would also be desirable from the standpoint of a country's trading partners.

While ultimately such reforms would be national decisions and the specifics could vary from one country to another, it would be desirable to approach such reform efforts within a cooperative international framework rather than exclusively as matters of unilateral national actions.

I have argued that for the major industrial countries such reforms should be focused primarily on domestic rather than exchange rate criteria. There are two major caveats to this proposition. As is stressed in the theory of optimum currency areas, one caveat is that it may be more economically desirable for smaller countries to peg to a relatively stable larger country or to join with other small countries to form a currency area.

A second caveat is that in the dynamic of establishing a political and economic climate within which the adoption of more fundamen-

²⁶See Barro (1982) and Calleo (1982) for statements that the breakdown of pegged rates and gold convertibility played an important role in reducing discipline in the United States. For empirical work reaching the opposite conclusion, see Briggs et al. (1988) and Darby et al. (1983).

tal institutional reforms would become feasible, it is possible that coordination on exchange rates could prove useful. This type of argument, however, should be approached with considerable caution. The experiences with the European Economic Community have found the linkages from economic reform to political integration to be much weaker than many advocates had hoped. Also, there is always a danger that such evolutionary strategies will succumb to the promises of quick political fixes that fail to produce longer-run stability while diverting attention from more fundamental issues. Still the avoidance of economic warfare after the breakdown of pegged rates in the 1970s is an important example that there can be some truths to such evolutionary arguments. The fact that the most recent experiences of the European Monetary System were not obvious failures (albeit the "success" depended on widespread use of capital controls) suggests that efforts at evolutionary strategies related to exchange rates deserve further attention.

Except for small countries, however, such strategies should be seen as complements to, rather than substitutes for, concerns with directly establishing limits over the range of discretion for national monetary and fiscal policies. The behavior of the latter determines the feasibility of alternative exchange rate regimes.

References

- Arndt, Sven; Sweeney, Richard J.; and Willett, Thomas D. *Exchange Rates, Trade, and the U.S. Economy*. Cambridge, Mass.: Institute for Public Policy Research, 1985.
- Barro, Robert. "United States Inflation and the Choice of Monetary Standard." In *Inflation, Causes and Effects*, pp. 99–110. Edited by Robert Hall. Chicago: University of Chicago Press, 1982.
- Bernholz, Peter. "The Implementation and Maintenance of a Monetary Constitution." In Dorn and Schwartz (1987, pp. 83–118).
- Bhandari, Jagdeep S., ed. *Exchange Rate Management under Uncertainty*. Cambridge: MIT Press, 1987.
- Bhandari, Jagdeep S., and Putnam, Bluford, eds. *Economic Interdependence and Flexible Exchange Rates*. Cambridge: MIT Press, 1983.
- Bigman, D., and Taya, T., eds. *Exchange Rate and Trade Instability: Causes, Consequences, and Remedies*. Cambridge, Mass.: Ballinger Press, 1983.
- Bilson, J., and Marston, R., eds. *Exchange Rate Theory and Practice*. Chicago: University of Chicago Press, 1984.
- Branson, William H. "The Limits of Monetary Coordination as Exchange Rate Policy." *Brookings Papers on Economic Activity* 1 (1986): 175–94.
- Briggs, John; Christenson, D. B.; Martin, Pamela; and Willett, Thomas D. "The Decline of Gold as a Source of Monetary Discipline." In Willett (1988, pp. 186–99).

- Buchanan, James M., and Wagner, Richard E. *Democracy in Deficit: The Political Legacy of Lord Keynes*. New York: Academic Press, 1977.
- Buchanan, James M.; Rowley, Charles K.; and Tollison, Robert D., eds. *Deficits*. Oxford: Basil Blackwell, 1987.
- Buiter, Willem H., and Marston, Richard C. *International Economic Policy Coordination*. Cambridge: Cambridge University Press, 1985.
- Calleo, David. *The Imperious Economy*. Cambridge: Harvard University Press, 1982.
- Campbell, Colin D., and Dougan, William K., eds. *Alternative Monetary Regimes*. Baltimore: Johns Hopkins University Press, 1986.
- Christ, Carl. "Rules vs. Discretion in Monetary Policy." *Cato Journal* 3 (Spring 1983): 121-41.
- Cohen, Benjamin J. *Organizing the World's Money: The Political Economy of International Monetary Relations*. New York: Basic Books, 1977.
- Cooper, Richard N. "Dealing with the Trade Deficit in a Floating Rate System." *Brookings Papers on Economic Activity* 1 (1986): 195-207.
- Corden, M. W. *Inflation, Exchange Rates, and the World Economy*. Chicago: University of Chicago Press, 1977.
- Crockett, Andrew, and Goldstein, Morris. "Inflation under Fixed and Flexible Exchange Rates." *IMF Staff Papers* 23 (November 1976): 509-44.
- Darby, Michael; Lothian, A. E. Gandolfi; Schartz, A. J.; and Stockman, A. C., eds. *The International Transmission of Inflation*. Chicago: National Bureau of Economic Research, University of Chicago Press, 1983.
- de Vries, Margaret G. *The International Monetary Fund, 1972-1978. Cooperation on Trial. Volume I: Narrative and Analysis*. Washington, D.C.: International Monetary Fund, 1985.
- Dorn, James A., and Schwartz, Anna J., eds. *The Search for Stable Money*. Chicago: University of Chicago Press, 1987.
- Dornbusch, Rudiger. "Flexible Exchange Rates and Excess Capital Mobility." *Brookings Papers on Economic Activity* 1 (1986): 209-26.
- Edison, Hali J., et al. "On Evaluating and Extending the Target Zone Proposal." *Journal of Policy Modeling* 9(1) (1987): 199-224.
- Fischer, Stanley. "Symposium on Exchange Rates, Trade, and Capital Flows: Discussion." *Brookings Papers on Economic Activity* 1 (1986): 227-32.
- Frenkel, Jacob A. "The International Monetary System: Should It Be Reformed?" *American Economic Review* 77 (May 1987): 205-10.
- Frenkel, Jacob A., and Goldstein, Morris. "A Guide to Target Zones." *International Monetary Fund Staff Papers* 33, no. 4 (December 1986): 633-73.
- Genberg, Hans, and Swoboda, Alexander K. "Fixed Exchange Rates, Flexible Exchange Rates, or the Middle of the Road: A Reexamination of the Arguments in View of Recent Experience." In *The Reconstruction of International Monetary Arrangements*, pp. 92-116. Edited by Robert Z. Aliber. New York: St. Martin's Press, 1987.
- Gutowski, Armin. "International Guidelines and Principles for National Financial and Exchange Rate Policies: Discussion." In *Exchange Rate Flexibility*, pp. 197-200. Edited by Jacob Dreyer, Gottfried Haberler, and Thomas D. Willett. Washington, D.C.: American Enterprise Institute, 1978.

- Gutowski, Armin. "Commentary." In *U.S.-European Monetary Relations*. pp. 70-74. Edited by Samuel I. Katz. Washington, D.C.: American Enterprise Institute, 1979.
- Halm, George N., ed. *Approaches to Greater Flexibility of Exchange Rates: The Burgenstock Papers*. Princeton: Princeton University Press, 1970.
- Jones, Ronald W., and Kenen, Peter B., eds. *Handbook of International Economics*, vol. 2. Amsterdam: North-Holland, 1985.
- Kenen, Peter B. "Exchange Rate Management: What Role for Intervention?" *American Economic Review* 77 (May 1987): 194-99.
- Lombra, Raymond E., and Witte, Willard D., eds. *Political Economy of International and Domestic Monetary Relations*. Ames: Iowa State University Press, 1982.
- Mayer, Thomas, and Willett, Thomas D. "Evaluating Proposals for Fundamental Monetary Reform." In Willett (1988, pp. 398-423).
- McKinnon, Ronald I. *An International Standard for Monetary Stabilization*. Washington, D.C.: Institute for International Economics, 1984.
- McKinnon, Ronald I. "The Dollar Exchange Rate as a Leading Indicator for American Monetary Policy." San Francisco Federal Reserve Bank, *Academic Conference Volume* (Fall 1985): 161-206.
- Rogoff, Kenneth. "Can International Monetary Policy Cooperation Be Counterproductive?" *Journal of International Economics* 18 (1985): 199-217.
- Tower, Edward, and Willett, Thomas D. "The Theory of Optimum Currency Areas and Exchange Rate Flexibility." Special Papers in International Economics. Princeton: Princeton University, Department of Economics, 1976.
- Vaubel, Roland. "A Public Choice Approach to International Organization." *Public Choice* 51 (1986): 39-57.
- Willett, Thomas D. *Floating Exchange Rates and International Monetary Reform*. Washington, D.C.: American Enterprise Institute, 1977.
- Willett, Thomas D. "Functioning of the Current International Financial Systems." In *International Money and Credit*. Edited by George von Furstenberg. Washington, D.C.: International Monetary Fund, 1983.
- Willett, Thomas D. "The Dollar Exchange Rate as a Leading Indicator for American Monetary Policy: Comment." San Francisco Federal Reserve Bank, Academic Conference (Fall 1985a): 207-14.
- Willett, Thomas D. "Macroeconomic Policy Coordination Issues under Flexible Exchange Rates." *ORDO* 35 (1985b): 137-49.
- Willett, Thomas D. "The Causes and Effects of Exchange Rate Volatility." In *The International Monetary System*, pp. 24-64. Edited by Jacob Dreyer, Gottfried Haberler, and Thomas D. Willett. Washington, D.C.: American Enterprise Institute, 1982.
- Willett, Thomas D. "A Public Choice Analysis of Strategies for Restoring International Economic Stability." Prepared for the Konstanz Conference on "New Institutional Arrangements for the World Economy," 1-4 July 1987a.
- Willett, Thomas D. "National Macroeconomic Policy Preferences and International Coordination Issues." Prepared for the National Bureau of Economic Research Interdisciplinary Conference on "The Political Economy of International Macroeconomic Policy Coordination," November 1987b.

- Willett, Thomas D., ed. *Political Business Cycles: The Political Economy of Money, Inflation, and Unemployment*. Durham: Duke University Press for Pacific Research Institute, 1988.
- Willett, Thomas D., and Mullen, John E. "The Effects of Alternative International Monetary Systems on Macroeconomic Discipline and the Political Business Cycle." In Lombra and Witte (1982, pp. 143-59).
- Willett, Thomas D., and Wolf, Matthais. "The Vicious Circle Debate." *Kyklos* 2 (1983): 231-48.
- Willett, Thomas D., and Banaian, King. "Models of the Political Process and Their Implications for Stagflation: A Public Choice Perspective." In Willett (1988, pp. 100-16).
- Willett, Thomas D., et al. "Currency Substitution, U.S. Money Demand, and International Interdependence." *Contemporary Policy Issues*, 5 (July 1987): 76-82.
- Williamson, John. *The Failure of World Monetary Reform, 1971-1974*. New York: New York University Press, 1977.
- Williamson, John. "Target Zones and the Management of the Dollar." *Brookings Papers on Economic Activity* 1 (1986): 165-74.
- Williamson, John. "Exchange Rate Management: The Role of Target Zones." *American Economic Review* 77 (May 1987): 200-204.