

SENSE AND NONSENSE OF FIXED EXCHANGE RATES: ON THEORIES AND CRISES

Carsten Hefeker

Preferences for exchange rate regimes appear to move in cycles. Before the collapse of the Bretton Woods system of fixed parities in 1973, policymakers and economists advocated flexible exchange rates as a way to isolate countries from imported inflation and to allow them to use domestic monetary policy to target the preferred point on the Phillips curve. It was also thought that flexible exchange rates would be relatively predictable because of stabilizing speculation (Friedman 1953). Subsequently, most expectations about the stabilizing effects of flexible exchange rates have been disappointing, and many policymakers and economists have come to view fixed exchange rates as a convenient device to import monetary stability. Yet, this once widespread notion has come under pressure as well with recent currency crises. The collapse of the “narrow” European Monetary System in 1992 and 1993 alerted policymakers and economists to the danger of speculating against declared currency parities. In particular, it has been argued that currency crises can be self-fulfilling, in the sense that without the occurrence of speculation the peg could survive (Obstfeld 1994, Eichengreen and Wyplosz 1993). Likewise, the Mexican peso crisis of 1994–95 and the more recent crises in Asia have been interpreted as being only partly justified by fundamentals (Sachs, Tornell, and Velasco 1996; Radelet and Sachs 1998). Policymakers in the affected countries tend to blame speculators for the collapse of their currencies and the ensuing economic crises. Thus, it is argued that pegged rates are unstable and that either a freely floating rate or a full monetary union are the only stable exchange rate arrangements left (Wyplosz 1997).

European monetary relations have also revived the so-called optimum currency area theory (see Masson and Taylor 1993, Tavlas

Cato Journal, Vol. 20, No. 2 (Fall 2000). Copyright © Cato Institute. All rights reserved.
Carsten Hefeker is Assistant Professor of Economics at the University of Basel. He thanks an anonymous referee for comments.

1993). That theory aims to identify the conditions under which countries should share a common money. Since many of the European countries that have chosen to unite their currencies do not fulfill the criteria for an optimum currency area, it is often concluded that “political aims” must be the reason for pursuing (an unwise) monetary union.¹

In this paper, I argue that both the monetary policy rule and the optimum currency area approach are problematic when used to explain why fixed exchange rates are chosen. To understand the actual choices, a positive theory is needed. Existing theories are incompatible with each other and neglect the influence of rather well-specified political aims—that is, the political self-interest of policymakers. Although the literature attributes political aims to the creation of the European Monetary Union, most authors identify only the strategic aim of tying Germany closer into the European political balance of power and disregard the fact that international economic policy often has a domestic background.² In my view, industries and financial firms who benefit from fixed exchange rates will seek to influence the political process in their favor.³ Unlike the optimum currency area approach, the political economy approach can explain exchange rate crises that result because of anticipated policy shifts.

Traditional Approaches to the Choice of a Fixed Exchange Rate Regime

The Monetary Rule Approach

The interpretation of fixed exchange rates as a monetary rule found particular support in the EMS case. It was argued that countries with a poor performance in terms of price stability, like France and Italy, were able to bring down their double-digit rates of inflation to more moderate levels by pegging to the deutschmark. Voluntarily “tying their hands,” these countries signaled their willingness to conduct

¹That political aims are the reason for monetary integration is a widely held view by supporters of the project (Wyplosz 1997) as well as by its critics in whose view the dominance of political aims is allowed to bring economic disaster and ultimately political conflicts (Feldstein 1997). It is believed that France pushed for monetary union to regain control over monetary policy (which it had surrendered to solve its credibility problem in monetary policy!) as a price for consenting to German reunification. This idea is, of course, not able to explain the long-run European pursuit of monetary union.

²This is very well understood for trade policy, which is often seen in an interest group context (see Rodrik 1995 for an overview of that literature). It is rather rare in international monetary relations (see, however, Lohmann 1993, Frieden 1994, and Hefeker 1997).

³This is not to deny that broader political goals are pursued as well, but those are neither necessary nor sufficient to rationalize the exchange regime choice we observe.

monetary policies resembling Germany's (Giavazzi and Pagano 1988). Expanding their money supply faster than Germany, they would experience real overvaluation under fixed exchange rates. Since this would hurt their export sector, the peg exhibited disciplinary pressure. There are empirical and theoretical reasons why this explanation is not convincing though.

To begin with, the evidence does not support this interpretation. Countries outside the EMS were just as, or even more, successful in bringing down their inflation rates in the 1980s than were the countries in the EMS (Collins 1988). Inflation rates were lower and diverged less among EMS countries even *before* they joined the system. In addition, it took several years to reach inter-EMS exchange rate stability: between 1979 and 1983 there were seven realignments, and four between 1983 and 1987. Only between 1987 and the EMS collapse in 1992–93 were there no more realignments. The conclusion that other influences than changed inflationary expectations are behind stable EMS exchange rates is also supported in a study by Collins and Giavazzi (1993). Using survey data they show that over the 1980s, the preferences concerning the tradeoff between inflation and employment in the EMS member countries converged. People in France and Italy became more inflation averse, whereas Germans became more interested in full employment, putting less weight on stable money. This evidence at least would suggest that the Maastricht Treaty of 1991 is the outcome of converging monetary policy preferences.

How can this contradiction between reality and the standard explanation from policymakers, central bankers, and economists be explained? Economists sought and found one obvious explanation in viewing fixed exchange rates as a contingent monetary policy rule (Bordo and Kydland 1995, De Kock and Grilli 1993). According to this idea, the exchange rate question is part of a general discussion about rules versus discretion in monetary policy (Kydland and Prescott 1977, Barro and Gordon 1983). Policymakers, being aware of nominal wage rigidities in the labor market, are tempted to create inflation in order to lower real wages to induce higher employment and output. However, rational private individuals understand this incentive and incorporate an inflationary markup into their nominal (wage) contracts; there is inflation but no output effect.⁴ Promises of policymakers not to inflate are not credible because after wage con-

⁴By alleviating the time-consistency problem it is aimed to reach a second-best solution. The first-best solution would be to abolish the rigidities on labor markets so that no incentive for monetary policy surprises exists.

tracts are signed, they are tempted to renege on this promise.⁵ To achieve credibility, monetary policy rules are required that prevent time-inconsistent policies. Fixed exchange rates are seen as one such binding commitment. By pegging to an established inflation-averse foreign central bank, the domestic time-consistency problem is solved.⁶

But why should an exchange rate rule be more credible than a domestic money-stock growth rule under floating rates? A commitment to an exchange peg is not more credible unless its abandonment is more costly than abandonment of a promise not to inflate (Kenen 1994). But it is not at all clear what the usually cited “political” costs (Mélitz 1988) should be and why they are higher than in the case of a breach of an internal money-stock growth rule. Yet it is often argued that especially the EMS is such an arrangement whose abandonment is extremely costly in political terms. While it is surely right that not to devalue against the deutschmark became a matter of pride in many EMS countries, it is not clear why an internal commitment to price stability, when announced with the same force and as easily to control via the publication of inflation forecasts and money stock developments, should not bear similar political costs.

Another condition for the superiority of an exchange rate rule would be that the international monetary system have a built-in stabilizer to exclude international and coordinated inflation. The potential danger with central bank cooperation, however, is that it can make the credibility problem even worse. International monetary cooperation may raise the public’s expectation of inflation because wage setters realize that noncooperative central bank behavior contains a check on each central bank. This is because a unilateral increase of the money supply followed by an increase in domestic prices leads to a real appreciation of the exchange rate when the nominal exchange rate is fixed. This reduces again the employment gains from money creation. But international monetary cooperation can remove this disincentive to inflate (Rogoff 1985). This suggests that an exchange rate peg is not necessarily a better solution to the tradeoff between credibility and flexibility in monetary policy. The monetary policy discussion for the closed economy has instead produced much better

⁵This happens although monetary authorities oppose inflation as well. The point is simply that as long as the marginal benefits from employment gains are larger than the costs in terms of higher inflation, the policymaker will try inflationary surprises.

⁶Curiously, that literature argues as well that “well specified” contingencies allow a temporary suspension of the exchange rate peg without losing credibility. This is a dubious assumption, as Grüner and Hefeker (1995) argue.

theoretical solutions, such as contracts for central bankers (Grüner and Hefeker 1995).

The Optimum Currency Area Approach

The credibility literature neglects the insights from the optimum currency area discussion. In that literature, criteria were developed to assess whether given countries should form a common currency area and under which conditions they should do so. The increased efficiency from a common currency has to be weighed against the potential stabilization function of a currency realignment given wage and price rigidities. These criteria are of a real nature—that is, factor mobility, openness of a country, and the diversification of its production structure.

Mundell (1961), in the first contribution to the optimum currency area literature, focused on the degree of economic integration as a criterion for the desirability of monetary integration. He stressed the role of factor mobility, which could substitute for an insufficient degree of wage and price flexibility in response to shifts in regional or product demand and supply. To avoid unemployment, factors must be sufficiently mobile when wages and prices are rigid. McKinnon (1963) extended the analysis to an economy's openness. In a small, very open economy, a change in the exchange rate has a substantial impact on the domestic price level, reducing the effectiveness of devaluation as an expenditure switching device. In contrast, a large economy with low marginal propensities to import is a natural candidate for flexible rates. Kenen (1969), however, argued that diversified economies (which tend to be large) may be better prepared for fixed rates whereas smaller and more specialized economies are subject to more frequent and larger terms of trade shocks and thus have a greater need for exchange rate adjustment.

According to this literature, high factor mobility or price flexibility allows a country to give up exchange rates as an adjustment mechanism. Given that these requirements are not fulfilled in most economies, asymmetric shocks to countries would require flexible exchange rates. There are two fundamental problems with this argument. First, it is generally recognized that money has only short-run real effects. If contracts are fixed for a certain period, real wages can temporarily be lowered by monetary expansion. This is not possible indefinitely because wage demands will adjust. Thus, monetary policy can be only a short-run policy instrument. Then, however, labor mobility and monetary policy cannot be substitutes because labor mobility is a long-run adjustment mechanism to regional or national divergences.

It is rather unlikely that labor will move in response to temporary imbalances. The often-drawn conclusion that fixed exchange rates make no sense for Europe because labor mobility is too low is therefore a logical contradiction. The second problem with the optimum currency area concept is its static nature which neglects that countries' industrial structures change. Frankel and Rose (1996) show that business cycles in countries that trade extensively with each other become more synchronized over time and that this tends to create an optimum currency area. In this sense, optimum currency areas are endogenous if fixed exchange rates foster real integration.

Therefore, both approaches that have been taken in the literature to rationalize the choice of fixed rates exhibit logical inconsistencies. One approach focuses solely on credibility issues without examining the case for floating rates, and the other is static and describes adjustment mechanisms as alternatives that are really independent. The next two sections offer an alternative interpretation of the choice and suspension of fixed exchange rates.

Exchange Rates and Trade

The inadequacy of the traditional approaches to explain the choice of fixed exchange rates suggests that an alternative explanation is needed. Historical evidence provides another direction of research. At the end of the 19th century, the classical gold standard, which is sometimes viewed as a monetary policy commitment to an external anchor (Bordo and Kydland 1995), was mainly adopted due to increasing trade in goods and capital rather than being due to desires to create an inflation-proof monetary system. Recent research has shown that countries chose the gold standard to gain exchange rate stability. That objective was deemed necessary to reap the benefits from industrialization and to expand trade and capital flows (Gallarotti 1995). The fact that gold was chosen instead of an alternative common standard might be a matter of historical happenstance because Britain, the leading trading and lending country at that time, was already on a gold standard, which encouraged others to adopt the same standard (Eichengreen and Flandreau 1994).⁷ Because the choice of a common money strongly depends on the existence of

⁷The same applies to other attempts in the 19th century to form supranational monetary unions such as the Latin Monetary Union or the Scandinavian Monetary Union (Hefeker 1995).

network externalities (Dowd and Greenaway 1993), it is less important how stable that currency is.⁸

This explanation for fixed exchange rates rests obviously on the negative effects of exchange rate variability on trade. So why is exchange rate variability perceived to have negative impacts on the amount and profitability of international trade? One reason is that exchange rate variability exposes trade to uncertainty. Even though it is true that short-term risk can, albeit not costlessly, be hedged in financial markets, it is much more difficult to buy insurance for longer time periods (De Grauwe and de Bellefroid 1987). Thus, although many studies found only weak evidence for exchange rate variability affecting trade, when turning to time periods longer than one year, the evidence is much stronger that the volume of trade is indeed affected by exchange rate uncertainty (Perée and Steinherr 1989).

While it is debated whether exchange rate changes really lead to reduced international transactions, it is undisputed that currency hedging is costly. But hedging costs are not the only costs from varying exchange rates. One further source mentioned by Paul Krugman (1989) stems from pricing to market requirements for many international firms. Firms set prices in local currencies in that country in which they supply their product. High competition in that market forces firms to fix their prices in the local currency and not to adjust them according to exchange rate changes. Therefore, the firm has to bear the costs of fluctuating currency values and a loss of profits if the exchange rate changes unfavorably. Empirical estimates of the importance of this effect differ, ranging from 45 percent of industries in the United States to 89 percent in Germany that are subject to pricing to market (Betts and Devereux 1996, Knetter 1993).⁹

Moreover, there can be considerable long-term market structure effects from exchange rate uncertainty. Dixit (1989) shows that, when future exchange rates are uncertain, there is an incentive for a firm to adopt a wait-and-see attitude toward investment which in turn reduces the rate at which investment adjusts to fundamental factors. If a firm faces costs of entry and exit in a market, the firm will use the “option value of waiting” and delay the investment even if

⁸This is also supported by the fact that vehicle currencies, once they are established, are very robust against changes to a new vehicle, irrespective of the inflation performance of the vehicle currencies. They are chosen because the country is a leading trader, such as Britain in the 19th century or the United States after 1945.

⁹At times, these may also be to the benefit of the firm. When the home currency is devalued, profits increase. However, risk-averse firms will still oppose the exchange rate risk as will firms from strong currency countries.

appreciation and depreciation are equally likely. In this case, exchange rate uncertainty leads to too slow an adjustment to changing patterns of comparative advantage and also influences the market structure in a given country. Potential entrants may stay away or, once in the market, stay there, as Baldwin and Krugman (1989) have shown. All these effects of exchange rate variability have a strong impact on internationally exposed firms.

If trade and international transactions depend on fixed exchange rates, there is a clear tendency to form currency blocs according to trade relations. The most obvious example is the EMU. Barry Eichengreen (1996) has argued that the EMU might be a political necessity for European free trade because variable exchange rates lead to protectionist pressures. There are even voices suggesting a monetary union for NAFTA. Rogoff (1991) has suggested that, in many respects, a North American Currency Union would fulfill the optimum currency area criteria better than does Europe. If so, it should promote capital and technology transfer, thereby contributing to real convergence of living standards and economic institutions (von Fürstenberg and Teolis 1994). In Asia, however, a yen bloc is unlikely to be formed in the near future because Asian countries trade more with the United States than with Japan (Frankel and Wei 1993).

The Political Value of Monetary Autonomy

The desire for exchange rate stability may not always dominate. Sometimes countries deliberately decide to abandon a fixed exchange rate. While fixed exchange rates are adopted in normal times, there can be instances in which a government prefers to suspend fixed rates temporarily to stabilize short-run output by expanding the money supply. Therefore, in cases of supply-side shocks, exchange rate pegging is, in general, only conditional.

This policy is based on the fact that floating rates are able to help economies adjust to certain shocks, because it is much easier to adjust national wage and price levels through a change in the exchange rate than through deflation. In contrast, a fixed exchange rate reduces the flexibility of monetary policy, limits seigniorage revenues, and constrains the use of fiscal policy. By limiting the availability of seigniorage revenues, reduced monetary autonomy influences the range of feasible fiscal policy. Therefore, De Kock and Grilli (1993) identify the need of seigniorage revenue, in case of large external shocks like wars, to be responsible for the collapse of fixed exchange rate regimes. If, however, a group of countries tied by fixed exchange rates were similarly affected by negative shocks, it would be possible to

initiate an internationally coordinated expansion without exchange rate movement. Forgoing exchange rate flexibility would incur no costs because the optimal monetary response would be similar for all countries. Only asymmetric shocks require asymmetric responses.

In the absence of exchange rate changes, other channels of adjustment are required. The most obvious one is increased wage flexibility. Workers would have to lower their nominal wage demands to provide the necessary real wage flexibility. But since deregulating labor markets is politically costly for governments, the preferred solution of politicians is the combination of fixed exchange rates while keeping the option of independent monetary policy. They aim to reconcile the desire for monetary autonomy for national stabilization policies with the goal of benefiting those industries engaged in foreign trade.¹⁰ This makes a contingent exchange rate target their preferred choice because it should combine the best of both worlds by providing stability and predictability in normal times with the flexibility needed under exceptional circumstances.

So what explains the decision to move toward full monetary union in Europe? One reason is certainly that the benefits from realignments have diminished over time. Increasingly diversified and intra-industry trade makes such a broad instrument as monetary policy less appropriate to tackle *sector*-specific shocks. Increasing the money supply to stabilize output in one sector would result in inflation in other sectors. Consequently, a change in the *general* price level is an inadequate instrument to help *specific* industries. It might even create further distortions in other sectors because devaluation means that all domestic prices fall vis-à-vis foreign prices instead of lowering only the relative price of a particular good. If a good negatively affected by a demand shock is produced in only one European Union country, the price of that good only would have to fall relative to all other goods produced in the EU. Clearly, the exchange rate is the wrong instrument because it can shift only the whole price level of one country. It makes only sense for country-specific shocks which become increasingly unlikely in Europe with similar production structures and a high degree of intra-industry trade. Only for shocks that impact a whole nation asymmetrically—in form of monetary supply shocks, or of nation-specific shocks to the velocity of circulation, to the stability of the banking system, to the level of wages, or to the

¹⁰Clearly, tradable and nontradable industries alike benefit from monetary expansion. This implies that tradable industries themselves face a decision problem of when to prefer fixed rates and when to opt for flexible rates. Likewise, nontradable industries and consumers may have a preferred level of the exchange rate (an appreciation increases real income).

productivity of labor—are exchange rate changes an appropriate instrument for international adjustments.

Another factor contributing to the monetary union decision is high capital mobility. Until the late 1980s, periods of exchange rate stability punctuated by occasional realignments were possible because temporary capital controls protected central banks' currency reserves against speculation in anticipation of a realignment. Deviations of interest rates among countries did not immediately lead to large capital flows from one country to another. Differentials had to be rather large and to be maintained for an extended period of time to trigger capital flows. This was because traders found it not immediately worthwhile to circumvent capital controls. But with the liberalization of capital movements, this has changed. If capital is highly mobile across countries, speculative attacks are possible. The choice for policymakers is no longer between fixed and flexible exchange rates but between monetary union and flexible rates (Wyplosz 1997).

Speculative Crises: Caused by Fundamentals or Self-Fulfilling?

The two preceding sections described opposing interests of policymakers—the desire to benefit some groups by fixing exchange rates and the desire to benefit other groups by using flexible monetary policy. For a long time, those opposing aims could be combined by restricting capital mobility, because after World War II, capital movements were restricted to make (some degree of) monetary autonomy consistent with fixed exchange rates. That situation was in marked contrast to earlier periods. As Obstfeld (1998) describes, the gold standard before World War I was characterized by at least as much capital mobility (capital account positions in terms of share of GDP) as today, yet the gold parity commitment of countries was never in doubt. The general acceptance of fixed exchange rates changed when economic policy became more democratized after 1918 (Polanyi 1944). Political pressure on governments to intervene and to use monetary policy to fine-tune the economy intensified. Investors realized that gold standard commitments were no longer credible. Speculation against the gold exchange standard peg of countries ensued and seriously disrupted exchange rates and trade (Nurkse 1944). To avoid a repetition of these experiences, the founders of the Bretton Woods system opted for fixed exchange rates with capital controls. The statutes of the International Monetary Fund, founded in

1944, explicitly foresaw the use of capital controls in case of balance-of-payments problems (even if the respective member state opposed such controls). Convertibility was only required for payments linked with the financing of international trade. By excluding speculation, which would undermine a peg given inconsistent monetary policy, a certain divergence in national monetary policies was possible regardless of the fixed exchange rate constraint. The “inconsistent trio” of fixed parities, free capital mobility, and monetary autonomy was solved by surrendering capital mobility. This situation changed again in the 1980s and 1990s when there was a general trend toward free capital mobility.

The abolition of capital controls and the occurrence of capital crises have ignited a discussion about whether capital controls are needed to avoid speculative attacks and whether currency crises are “justified” or not. Is the possibility of speculative crises under capital mobility something that countries should worry about? Only if unjustified, self-fulfilling attacks would be possible could one make an argument about the need to try to avoid such events. But if one has to acknowledge that currency crises are caused by the underlying fundamentals, then it seems obvious that policy inconsistencies, not free capital flows, are responsible for the attacks.¹¹

This section argues that such crises are usually caused by expectations about policy changes of politically optimizing governments. As shown in the prior section, if the political costs of defending a peg are increasing, because of external shocks or near elections, governments often like to use their discretion to change monetary policy, thereby ultimately undermining a currency peg. Expectations about this policy change can cause a currency crisis. Thus, the aim of this section is to show that the same considerations concerning the choice of a currency peg can be used to explain the collapse of a currency peg.

I begin with currency crises in emerging markets that have their root in the decision to adopt a pegged exchange rate. The problem with this policy is that pegged exchange rates do not fix the prices of nontradable goods. Yet, it is the real exchange rate—defined as the price of tradables over nontradable goods weighted by the nominal exchange rate—and not the nominal exchange rate that determines a country’s current account balance. So when the prices of nontradable goods continue to rise, the real exchange rate appreciates, driving the current account into deficit and depressing output in the tradable goods sector. Rising prices of nontradables will also continue to feed

¹¹This is most explicitly argued by Bordo and Schwartz (1996) and Schwartz (1998).

the wage-price spiral. Instead, the use of exchange rates could be beneficial in this situation in several ways. Their adjustment can directly correct any distortion between the relative price level of tradable and nontradable goods. Second, the possibility of adjusting exchange rates allows moderate monetary expansion, which can be politically convenient because it allows relative price adjustment by raising at least some prices, instead of lowering others. Moreover, adjustment and decline of some sectors will usually require fiscal support for the negatively affected sectors. In this situation, when the exchange rate is pegged and the balance of payments deteriorates as a consequence of real overvaluation, fiscal deficits increase even more. They then have to be financed by issuing debt or by ultimately returning to the money press. Inflation inertia leads to an appreciating real exchange rate, creating expectations of a devaluation. As time passes and the real exchange rate continues to appreciate, the expected devaluation also becomes larger. Individuals will turn to the central bank and convert domestic currency into foreign currency and thereby reduce the bank's foreign reserves. Ultimately, the central bank will be unable to defend the currency peg.

Hence, as the literature on balance-of-payments crises has shown, when financial markets realize that currency reserves reach a critical level, speculation against that currency follows and the exchange rate collapses (Krugman 1979). While these early analyses regarded economic policy as exogenous, recent research considers the incentives of governments to use monetary and fiscal policies to defend the announced currency peg (see, e.g., Obstfeld 1994). The current literature stresses that exchange rate pegs are always contingent and depend on policy decisions to revalue. If governments are concerned about their reelection, they might decide to devalue instead of risking a recession by setting interest high enough to defend their peg. This is ultimately a political decision because as Obstfeld and Rogoff (1995) argue, there are no technical obstacles to defending a currency peg, regardless of the amount of capital that is circulating on world markets.

These so-called second-generation models of crises have also pointed out the possibility of self-fulfilling speculative attacks. If market participants expect a government to devalue, they will sell the currency, thereby creating downward pressure on the exchange rate. If the pressure continues, a point might be reached after which the defense of the peg might be too costly politically. If unemployment or interest rate sensitivity make the necessary monetary and fiscal restraint politically unacceptable, expectation of devaluation will be justified *ex post* because expected policy changes are executed after the

fact. However, had the expectation of devaluation not existed, the peg might have survived provided there were no underlying fundamentals making it inevitable (in contrast to the first-generation models). Expectations that cause the collapse are self-fulfilling.

This approach has been extensively used to explain the European currency crises in 1992 and 1993. Eichengreen and Wyplosz (1993) have argued that fundamentals are not sufficient to explain the occurrence and, even less, the timing of the attacks on the lira, peseta, and pound in 1992 and 1993. Sachs, Tornell, and Velasco (1996) and Cole and Kehoe (1996) have argued that the collapse of the Mexican peso in 1994 was due, in part, to self-fulfilling expectations. It is not surprising, therefore, that similar arguments have been used to explain the recent Asian currency crises (Radelet and Sachs 1998). Paul Krugman (1996, 1997) however, defends the earlier approach by arguing that fundamentals are always ultimately underlying the developments that lead to crises. Peter Garber (1996) takes a similar position, arguing that it is still inadequate policy decisions that lead to speculation against a currency, not the whims of the market. Yet policymakers continue to prefer the market failure interpretation rather than accept blame for government failure.

Indeed, the collapse of the EMS in the fall of 1993 demonstrated that politicians are still not willing to recognize the policy constraint exerted by a fixed exchange rate. Given the effects of German unification and the tight monetary policy in Germany, the other countries were unwilling to accept this solution for their economies as well. They were also unwilling to let their exchange rates float, or at least to adjust them.¹² The fundamental deterioration in the domestic rates of unemployment signaled to governments that raising interest rates to defend the deutschmark peg would be costly politically. This became obvious in the Danish rejection of the Maastricht Treaty and the narrow victory in France. Financial markets came to expect that political pressure would force governments to increase money growth and to give up the deutschmark peg. Speculation against several currencies followed and led to a massive realignment within the EMS with Italy and Great Britain leaving it altogether.¹³ Thus, it was ba-

¹²One reason, apart from political costs, can be found in the Maastricht Treaty, which stipulated that countries wanting to join the EMU need to have a two-year period without realignment before joining.

¹³Technically, the bands in which the currencies are allowed to float have been widened from ± 2.25 percent to ± 15 percent around a target rate. Great Britain and Italy left the Exchange Rate Mechanism, and Portugal and Spain realigned. See Svensson (1994) and Hefeker (1997) for a chronology.

sically the expectations that governments would not be willing to bear the political costs of defending the pegged exchange rate that caused the attack.

The Mexican peso crisis also demonstrates the unwillingness of politicians to acknowledge the working of exchange markets. This case is a prime example of the combination of bad fundamentals and expectations about changing policy objectives (see Sachs, Tornell, and Velasco 1996). Current account deficits and the depletion of currency reserves signaled that the peg would ultimately have to be abandoned if there were no serious policy change or external support to help defend the peso. With a current account deficit of 7 percent of GDP, the exchange rate was considerably overvalued, and the central bank lost dollar reserves (Dornbusch and Werner 1994). Because of the political risk after the assassination of presidential candidate Colosio in March 1994 and rising U.S. interest rates, foreign portfolio investment in Mexico fell. Moreover, a contractive policy change was not very likely because elections were nearing and experience showed that there had been large devaluations in Mexico at the end of the three previous administrations (Kehoe 1995). With the elections approaching, the government attempted to boost the economy by loosening monetary control. At the same time, the numbers for the monetary aggregates were held back. This surely arose additional suspicion among those who had invested in Mexico and capital flew out of the country. The mini-devaluation of December 20 was too little to calm the markets. In contrast, it apparently convinced the traders that more was to come. Speculation and capital flight continued. It increased when government officials in private conversations with business leaders in Mexico suggested that the devaluation was likely to be insufficient. The government presented its plan to allow the peso to float but strong opposition from the business executives led to a devaluation of only 15 percent. At the same time, the governor of the central bank let the business leaders understand that the central bank might be unable to defend the currency. People attending that meeting, and their associates, sold hundreds of millions of dollars in pesos in response (Krugman 1997). This action and the devaluation triggered fears among investors that government debt would not be repaid. As those fears spread to private loans, a full-blown banking crisis followed (Sachs, Tornell, and Velasco 1996).

A similar story can be told about the developments in Asia (Krugman 1997). Already in 1995 market participants began to wonder whether the countries in Southeast Asia might follow the Latin American example, as large current account deficits emerged. During 1996, IMF and World Bank officials began to worry about financial

weaknesses because of heavy investment in speculative real estate, credit exposure of domestic banks, and poorly informed foreign sources. Their warnings were rejected by the responsible government officials, however. When Thailand devalued the baht on July 2, 1997, Malaysia, Indonesia, and the Philippines devalued their currencies as well. But again, like Argentina in the Latin crisis, Hong Kong resisted speculative pressures and maintained its U.S. dollar-based currency board without devaluation.

As Corsetti, Pesenti, and Roubini (1998a) show in their very detailed account of the Asian crises, the different performances of the Asian economies can be attributed to differences in the fundamentals and in economic policies. In their view, five reasons are behind the crises:

1. Real appreciation of the currency and current account imbalances and a vicious circle of competitive devaluations among the countries once they gave up the peg.
2. Short-term foreign currency denominated debt made the countries particularly vulnerable to devaluations, which worsened the crisis.
3. The political problems were also caused by extensive investments in risky projects, in particular by political allies of the ruling elites.
4. Extensive overlending and investment were made possible by implicit guarantees of these investments by the government, which created serious moral hazard problems.
5. When the competitive devaluations made the foreign debt guarantees no longer credible, foreign capital flows sharply reversed.

That countries fared so differently, Corsetti et al. (1998a) argue, is due to the different degrees of corruption and political cronyism. Indonesia and Korea were hit the hardest, whereas Hong Kong, Taiwan, Singapore, and China were relatively less affected. The latter had trade surpluses, low levels of foreign debt, and (with the exception of China) banking systems that were relatively sound. Thus, the conclusion is that political uncertainties and economic fundamentals—in the form of distorted investment, insufficient banking regulation, and overborrowing—caused the Asian financial crisis.¹⁴

Nevertheless, Malaysian Prime Minister Mahathir blamed “rogue

¹⁴Foreign overlending implies, of course, that Western investors were inprudent as well (Corsetti et al. 1998b).

speculators” and international “morons” for the Asian crisis and called for an end to currency trading and for the reintroduction of capital controls. His reaction is testimony to the fact that politicians like to preserve their discretion and not admit their policy failures.

In the European context as well, the role of markets has prompted the revival of proposals, most prominently by Jacques Delors, former president of the EU Commission, for the reintroduction of restrictions on short-term capital movements. Some academics have developed similar ideas. Eichengreen and Wyplosz (1993) suggest a tax on short-term capital inflows in the form of interest-free deposits with the central bank, additional prudential bank capital requirements against foreign exchange positions, or a tax on gross foreign exchange transactions. The basic problem with these proposals, let alone their desirability, is their likely ineffectiveness (Garber and Taylor 1995). Capital controls in the EMS were already increasingly permeable during the 1980s, and the new proposals are also unlikely to work.

Taxing short-term capital inflows would prevent volatile capital flows into a country, but also forgo the benefits from free capital flows. Like free trade in goods, free trade in capital enhances the efficient use of resources. Restrictions on capital inflows also would harm long-term capital investments by distorting incentives. Capital outflows can be avoided when capital inflows are restricted in the first place, but inflows are necessary. Emerging and developing markets are in need of capital to build up industries. Controls are not a substitute for sound monetary, fiscal, and financial policy. Although one cannot rule out the possibility that short-term capital flows might be quite erratic and not reflect underlying fundamentals in a particular country (because there are genuine spillover and overreactions by investors), it would probably be much more damaging to impose capital controls. In general, one must conclude that currency crises are primarily due to unsound policy or expected changes in economic policy rather than to some undefined market whims that aim to ruin small and innocent economies. Capital controls are no longer a way to combine fixed exchange rates with macroeconomic populism.

If interest groups favoring fixed exchange rates are powerful enough, the incompatibility of fixed rates with free capital flows requires a more credible peg. This explains why monetary union is pursued as the only credible commitment to fixed rates in Europe. But since this rules out any further possibilities to expand monetary policy to benefit other interest groups or to monetize fiscal deficits, it is not surprising that this decision is hotly debated. In Europe, for now, because of the degree of trade integration already achieved, the former groups have won. As already argued, similar economic struc-

tures in most member countries make this decision easier to accept, as the need for asymmetric monetary policy is reduced.

Conclusion

The exchange rate is said to be the most important single price in the economy (Kenen 1994). There are good reasons for fixing it or for letting it float, depending on the structure of an economy and its trade pattern. Therefore, the right choice is different for different countries. Decisions concerning the choice of future exchange rate regimes, however, need to be internally and logically consistent. When fixed exchange rates are preferred, this choice necessarily implies giving up monetary autonomy. If, on the other hand, monetary autonomy is highly valued, then this implies that only flexible exchange rates are compatible with that choice, given high capital mobility. The Asian crisis is only the latest demonstration, after Europe and Mexico, that policymakers are obviously still not willing to realize that the choice of the exchange rate regime has to be consistent with the setting of monetary and fiscal policy, as well as with the choice of other institutional arrangements in the economy. Unless it is realized that the number of independent choices is restricted and that policy choices have to be consistent, more exchange rate crises can be expected. This unwillingness to accept constraints, rather than irresponsible behavior of speculators, is behind currency crises. If a repetition of such crises is to be avoided, underlying policies must be consistent.

This obvious, yet not always recognized, conclusion is based on the interpretation of exchange rate regime choice and collapse within a model that starts from the optimizing behavior of policymakers. By realizing that policymakers are as self-interested as any other agent in an economy, these developments can be better explained than in the traditional literature. Therefore, I began by arguing why the existing theories are partial at best. Actual choice of exchange rate arrangements and currency crises are hard to fit into the traditional literature. Since fixed rates are always credible in the optimum currency area approach, this literature is unable to explain currency crises. Those could be integrated in the monetary credibility approach to exchange rate choice, but that fails to explain convincingly the existing currency areas. Explaining the choice and collapse of a fixed exchange rate regime as political decisions, in contrast, allows one to view speculative attacks on fixed exchange rate regimes as *politically* motivated policy changes that are correctly anticipated by market participants.

References

- Baldwin, R., and Krugman, P. (1989) "Persistent Trade Effects of Large Exchange Rate Shocks." *Quarterly Journal of Economics* 104: 633–54.
- Barro, R., and Gordon, D. (1983) "A Positive Theory of Monetary Policy in a Natural Rate Model." *Journal of Political Economy* 91: 589–610.
- Betts, C., and Devereux, M.B. (1996) "The Exchange Rate in a Model of Pricing-to-Market." *European Economic Review* 40: 1007–21.
- Bordo, M.D., and Kydland, F.E. (1995) "The Gold Standard as a Rule." *Explorations in Economic History* 32: 423–64.
- Bordo, M.D., and Schwartz, A.J. (1996) "Why Clashes Between Internal and External Stability Goals End in Currency Crises." NBER Working Paper 5710.
- Cole, H.L., and Kehoe, T.J. (1996) "A Self-Fulfilling Model of Mexico's 1994–1995 Debt Crises." *Journal of International Economics* 41: 309–30.
- Collins, S. (1988) "Inflation and the European Monetary System." In F. Giavazzi, S. Micossi, and M. Miller (eds.) *The European Monetary System*, 112–39. Cambridge: Cambridge University Press.
- Collins, S., and Giavazzi, F. (1993) "Attitudes Towards Inflation and the Variability of Fixed Exchange Rates." In M. Bordo and B. Eichengreen (eds.) *A Retrospective on the Bretton Woods System*, 547–77. Chicago: University of Chicago Press.
- Corsetti, G.; Pesenti, P.; and Roubini, N. (1998a) "What Caused the Asian Currency and Financial Crises?" New York University, mimeo.
- Corsetti, G.; Pesenti, P.; and Roubini, N. (1998b) "The Asian Crisis: An Overview of the Empirical Evidence and Policy Debate." Federal Reserve Bank of New York, mimeo.
- De Grauwe, P., and de Bellefroid, B. (1987) "Long-Run Exchange Rate Variability and International Trade." In S. Arndt and D. Richardson (eds.) *Real Financial Linkages Among Open Economies*, 193–212. Cambridge, Mass.: MIT Press.
- De Kock, G., and Grilli, V. (1993) "Fiscal Policies and the Choice of Exchange Rate Regime." *Economic Journal* 103: 347–58.
- Dixit, A. (1989) "Hysteresis, Import Penetration, and Exchange Rate Pass-Through." *Quarterly Journal of Economics* 104: 205–27.
- Dornbusch, R., and Werner, A. (1994) "Mexico: Stabilization, Reform and No Growth." *Brookings Papers on Economic Activity* 1: 253–315.
- Dowd, K., and Greenaway, D. (1993) "Currency Competition, Network Externalities and Switching Costs: Towards an Alternative View of Optimum Currency Areas." *Economic Journal* 103: 1180–89.
- Eichengreen, B. (1996) *A More Perfect Union? The Logic of Economic Integration*. Princeton Essays in International Finance 198, Princeton University.
- Eichengreen, B., and Flandreau, M. (1994) "The Geography of the Gold Standard." CEPR Discussion Paper 1050, October.
- Eichengreen, B., and Wyplosz, C. (1993) "The Unstable EMS." *Brookings Papers on Economic Activity* 1: 51–124.
- Feldstein, M. (1997) "The Political Economy of the European Economic and

- Monetary Union: Political Sources of an Economic Liability." *Journal of Economic Perspectives* 11 (Fall): 23–42.
- Frankel, J.A., and Rose, A.K. (1996) "The Endogeneity of the Optimum Currency Area Criteria." NBER Working Paper 5700.
- Frankel, J.A., and Wei, S.-J. (1993) "Is There a Currency Bloc in the Pacific?" University of California at Berkeley, mimeo.
- Frieden, J. (1994) "Exchange Rate Politics: Contemporary Lessons from American History." *Review of International Political Economy* 1: 81–103.
- Friedman, M. (1953) "The Case for Flexible Exchange Rates." In M. Friedman, *Essays in Positive Economics*, 157–203. Chicago: University of Chicago Press.
- Gallarotti, G. (1995) *The Anatomy of an International Monetary Regime*. New York: Oxford University Press.
- Garber, P. (1996) "Comment." *NBER Macroeconomics Annual*, 403–6.
- Garber, P.M., and Taylor, M.P. (1995) "Sand in the Wheels of Foreign Exchange Markets: A Sceptical Note." *Economic Journal* 105: 173–80.
- Giavazzi, F., and Pagano, M. (1988) "The Advantage of Tying One's Hands: EMS Discipline and Central Bank Credibility." *European Economic Review* 32: 1055–82.
- Grüner, H.P., and Hefeker, C. (1995) "Domestic Pressures and the Exchange Rate Regime: Why Economically Bad Decision Are Politically Popular." *Banca Nazionale del Lavoro Quarterly Review* 194: 331–50.
- Hefeker, C. (1995) "Interest Groups, Coalitions and Monetary Integration in the 19th Century." *Journal of European Economic History* 24: 489–536.
- Hefeker, C. (1997) *Interest Groups and Monetary Integration: The Political Economy of Exchange Regime Choice*. Boulder, Colo.: Westview.
- Kehoe, T. (1995) "Capital Flows and North American Economic Integration." University of Minnesota, mimeo.
- Kenen, P.B. (1969) "The Theory of Optimum Currency Areas: An Eclectic View." In R. Mundell and A. Swoboda (eds.) *Monetary Problems of the International Economy*, 41–60. Chicago: University of Chicago Press.
- Kenen, P.B. (1994) "Floating Exchange Rates Reconsidered: The Influence of New Ideas, Priorities and Problems." In P. Kenen, F. Papadia, and F. Saccomani (eds.) *The International Monetary System*, 139–61. Cambridge: Cambridge University Press.
- Knetter, M.M. (1993) "International Comparisons of Pricing-to-Market Behavior." *American Economic Review* 83: 473–86.
- Krugman, P. (1979) "A Model of Balance-of-Payments Crises." *Journal of Money, Credit and Banking* 11: 311–25.
- Krugman, P. (1989) *Exchange Rate Instability*. Cambridge, Mass: MIT Press.
- Krugman, P. (1996) "Are Currency Crises Self-Fulfilling?" *NBER Macroeconomics Annual*, 345–78.
- Krugman, P. (1997) "Currency Crises." MIT, mimeo.
- Kydland, F.E., and Prescott, E. (1977) "Rules Rather than Discretion: The Inconsistency of Optimal Plans." *Journal of Political Economy* 85: 473–91.
- Lohmann, S. (1993) "Electoral Cycles and International Policy Coordination." *European Economic Review* 37: 1373–91.
- Masson, P.R., and Taylor, M.P. (1993) "Currency Unions: A Survey of the

- Issues." In P. Masson and M. Taylor (eds.) *Policy Issues in the Operation of Currency Unions*, 3–51. Cambridge: Cambridge University Press.
- McKinnon, R. (1963) "Optimum Currency Areas." *American Economic Review* 53: 717–25.
- Méltiz, J. (1988) "Monetary Discipline and Cooperation in the European Monetary System. A Synthesis." In F. Giavazzi, S. Micossi, and M. Miller (eds.) *The European Monetary System*, 51–84. Cambridge: Cambridge University Press.
- Mundell, R. (1961) "A Theory of Optimum Currency Areas." *American Economic Review* 51: 657–65.
- Nurkse, R. (1944) *International Currency Experience*. Geneva: League of Nations.
- Obstfeld, M. (1994) "The Logic of Currency Crises." *Cahier Economiques et Monétaires* 43: 189–213.
- Obstfeld, M. (1998) "The Global Capital Market: Benefactor or Menace?" *Journal of Economic Perspectives* 12 (Fall): 9–30.
- Obstfeld, M., and Rogoff, K. (1995) "The Mirage of Fixed Exchange Rates." *Journal of Economic Perspectives* 9 (Fall): 73–96.
- Perée, E., and Steinherr, A. (1989) "Exchange Rate Uncertainty and Foreign Trade." *European Economic Review* 33: 1241–64.
- Polanyi, K. (1944) *The Great Transformation*. New York: Rinehard.
- Radelet, S., and Sachs, J. (1998) "The Onset of the Asian Crisis." Harvard Institute for International Development, mimeo.
- Rodrik, D. (1995) "Political Economy of Trade Policy." In G. Grossman and K. Rogoff (eds.) *Handbook of International Economics* 3. Amsterdam: Elsevier.
- Rogoff, K. (1985) "Can International Policy Coordination Be Counterproductive?" *Journal of International Economics* 18, 199–217.
- Rogoff, K. (1991) "NaChos and ECUs: Issues in the Transition to European Monetary Union." Princeton University, mimeo.
- Sachs, J.; Tornell, A.; and Velasco, A. (1996) "The Collapse of the Mexican Peso: What Have We Learned?" *Economic Policy* 22: 13–63.
- Schwartz, A.J. (1998) "International Financial Crises: Myths and Realities." *Cato Journal* 17: 251–56.
- Svensson, L.E.O. (1994) "Fixed Exchange Rates as a Means to Price Stability: What Have We Learned?" *European Economic Review* 38: 447–68.
- Tavlas, G.S. (1993) "The 'New' Theory of Optimum Currency Areas." *World Economy* 16: 663–85.
- von Fürstenberg, G.M., and Teolis, D.P. (1993) "Growth and Income Distribution Benefits of North American Monetary Union for Mexico." *North American Journal of Economics and Finance* 4: 127–43.
- Wyplosz, C. (1997) "EMU: Why and How It Might Happen." *Journal of Economic Perspectives* 11 (Fall): 3–22.