

# Alternative Policy Strategies to Prevent Currency Crises

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## 1. *Introduction*

During the 1990s, currency crises have occurred in many emerging economies, including Mexico, certain East Asian countries, Russia, and Brazil. We can also add the European currency crises of 1992-93, though most European economies should be described as maturing rather than emerging. Some intellectuals have denoted these situations the “crisis of global capitalism” or the “crisis of the 21<sup>st</sup> century.” In the press we find references to the possible suspects who “poisoned Asia’s currency markets.” Some condemn the greedy hedge funds of George Soros, the wicked Wall Street-Treasury Complex, and the American conspiracy, while others denounce Asia’s crony capitalism or Japan’s incompetence in relieving neighboring countries. As to the remedies, there are some who call for more restrictions and controls on international capital movements, and others who advocate the creation of the “Asian euro” to escape from the tyranny of the US dollar.

These broadly flourishing speculations are, however, both groundless and non-economic. The “remedies” might do more harm than good if actually applied. In fact, the mechanism of currency crises is very simple. Therefore, preventing them is not a difficult task by itself. As argued in Krugman (1998a: 150), recent events do not show that there is no defense against speculative attack. There are at least three policy strategies that are well known. Each of them, however, has its own undesirable side effect. And the cost incurred, which depends on the particular circumstances, may sometimes be quite large. The most difficult problem for each nation is, therefore, making a suitable policy choice for particular economic and political circumstances.

A currency crisis occurs when the exchange rate of a country’s currency is pegged to another currency or a basket of currencies. Examples include EU countries that were pegging their currencies to the ECU under the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS), and countries such as Mexico, Brazil, Russia, and those in East Asia that were pegging their currencies to the US dollar. A currency crisis occurs when an exchange rate peg becomes unsustainable. For example, the rise in German interest rates in the early 1990s made it difficult for the other EU countries to sustain their previous exchange rate pegs. Similarly, the rise in US interest rates and the accompanying appreciation of the US dollar since the middle of 1990s helped to trigger bubble bursts in many East Asian economies. High-inflation countries such as Mexico, Brazil, and Russia frequently had difficulty in maintaining exchange rate pegs since their real exchange rates appreciated unreasonably through the nominal exchange rate peg.

The above examination shows that a currency crisis is a phenomenon peculiar to the pegged exchange rate regime, though this includes many variants such as systems of target zones and crawling bands. More specifically, a currency crisis is a phenomenon characterized by speculators making one-way-option currency transactions. Any symptom indicating that a country is having trouble keeping up with its existent exchange rate peg can trigger currency speculation.

This consideration necessarily leads to the conclusion that the simplest measure to prevent a currency crisis is to refrain from pegging the exchange rate, allowing it to fluctuate with the market. This is what Krugman calls the “benign neglect” strategy (Krugman 1988: 150), though it is merely another interpretation of the “case for the flexible exchange rate” presented long ago by Milton Friedman (Friedman 1953).

Nevertheless, many countries, especially the emerging economies, will continue to operate under pegged exchange rate regimes. There are many reasons that these countries prefer a peg to a float. In this paper, I present an auxiliary policy strategy for countries that are obliged to adopt exchange rate pegging under certain circumstances. This is a policy assignment strategy of using monetary policy to sustain an exchange rate peg and fiscal policy to sustain national income or employment. The risk of a currency crisis will be considerably mitigated, although the strategy’s success depends on how a country can execute its fiscal policy flexibly.

## **2. *The Logic of Currency Crises: One-Way Options and Speculative Attacks***

Various attempts have been made to model currency crises, beginning with Krugman (1979). These are usually divided into one of two categories: the “first generation” models and the “second generation” models. In the first generation models a currency crisis is thought to be an outcome of inconsistent macroeconomic policies, while the self-fulfilling nature of currency crises is emphasized in the second generation models. These models differ from each other in explaining what causes a currency crisis. Nevertheless they have in common the basic notion that a currency crisis is a phenomenon associated with a situation where speculators become suspicious about the credibility of a currency peg, and make one-way-option transactions called “speculative attacks.”

As these models show, a currency crisis is a phenomenon peculiar to the regime in which a monetary authority tries to peg the exchange rate of its own currency by intervening in the foreign exchange market. Therefore, a currency crisis should be distinguished from exchange rate volatility, which is frequent under the flexible exchange rate regime. In fact, the underlying economics of these two phenomena are completely different.

Turning to what really happened, we notice that all countries that underwent currency crises in the 1990s, in particular the EU countries, the East Asian countries, Mexico, Russia, and Brazil, adopted pegged exchange rate systems before the crises. We should also remember that currency crises frequently happened under the Bretton-Woods fixed exchange rate system, especially in its last years during the 1960s and the early 1970s. Further back in the interwar period, we find many examples of countries disturbed by the movements of “hot money” caused by the anticipation of devaluation or the abandonment of exchange rate parities with gold. Therefore, a currency crisis is not a “21<sup>st</sup> century crisis” at all, but a familiar phenomenon as old as the history of fixed exchange rate systems.

Although it is only recently that currency crises were incorporated into formal economic models, their basic logic has long been recognized. In Friedman’s “Case for Flexible Exchange Rates,” the classic article on this theme, we find a complete description of how a currency crisis occurs. In this article, Friedman argues that a fixed exchange rate system has an inevitable tendency to create an anticipation of vast exchange gain that might be acquired with a relatively small loss of interest earnings from an interest-rate differential (Friedman 1953: 164). It is exactly this anticipation that gives speculators an undue incentive to do currency speculation, which generally results in a crisis. Due to the profound influence of this article, the common understanding developed that the ultimate cause of speculative attack and the subsequent

currency crisis is the one-way option that the anticipation of devaluing or abandoning fixed exchange rates inevitably gives to speculators.

The one-way option in this context can be thought of as an option that will be executed only if an exchange rate were actually devalued. Its option price is the cost associated with currency transactions: the sum of taxes and fees on foreign exchange transactions and the interest rate differential. Suppose, for example, that a country with a pegged exchange rate were constantly losing its foreign exchange reserves, and that speculators could easily foresee that the country would be forced to abandon its efforts to maintain this exchange rate some time in the future. In such a situation, speculators would rush into selling its currency with the intention of buying it back after it was devalued. The exchange rate change is “one-way” in the sense that it will very likely be devalued but will certainly not be revalued, so that the anticipated foreign exchange gain becomes large while the losses remain zero. The only loss that the speculator incurs is the cost of currency transactions. Usually this cost doesn’t increase as much as the anticipated foreign exchange gains, although a monetary authority facing a speculative attack often tries to increase it by raising interest rates. A speculative attack is an inevitable outcome of this situation.

### **3. *Three Traditional Strategies***

There are at least three policy strategies that are thought to be possible measures to prevent a currency crisis. Krugman called two of them the “benign neglect” strategy and the “Caesar’s wife” strategy (Krugman 1998a: 150-151). The remaining one is a restriction on capital movements.

The benign neglect strategy is one in which the monetary authority doesn’t commit to any exchange rate targeting, leaving the exchange rate to fluctuate with the market. Naturally, the exchange rate continues to fluctuate as long as expectations and the circumstances surrounding the market continue to change. As proponents of flexible exchange rates represented by Friedman used to stress, however, these exchange rate fluctuations must be distinguished from a currency crisis as it occurs in fixed exchange rate regimes. The latter is not a reflection of a fluctuation inherent in the market, but rather a consequence of the efforts made by a monetary authority to contain this fluctuation.

To understand why currency crises do not occur under the flexible exchange rate system, we should remember how difficult it is for speculators to obtain foreign exchange gains under a free float. If a monetary authority made no intervention in the foreign exchange market, and the exchange rates were left to fluctuate, any new information and the accompanying shifts in expectations would be immediately reflected in current exchange rates. Suppose that, for example, the unemployment rate were rising in a country, and that the monetary authority was sure to execute expansionary monetary policy to reduce it. If this information suddenly appeared, the exchange rate would begin to depreciate, and would continue to do so until most speculators regarded it as sufficiently lowered. If new information is always reflected in current exchange rates in this manner, it would be almost impossible for speculators to predict with certainty the direction of subsequent exchange rate movements. In this sense, allowing exchange rates to fluctuate is by itself the most potent safeguard against speculative attack and a currency crisis.

In contrast, the pegged exchange rate regime is always characterized by successions of two completely different phases, the calm period of no exchange rate fluctuation and a devastating period of sudden downfall. The pegged exchange rate system has many variations that differ slightly from each other. Usually this system of exchange rate pegging has some margins within

which exchange rates can fluctuate. These are called “exchange rate bands.” The Exchange Rate Mechanism (ERM) of the European Monetary System (EMS) before the European Currency Crises is an example of this system. Countries that later became victims of speculative attacks, for example Latin America countries, East Asian countries, and Russia, adopted a similar arrangement in principle, although the currency to which their national currencies were pegged was usually the US dollar. However, exchange rate bands differed country by country.

In such settings, two scenarios may emerge according to whether the commitment of each country to its particular exchange rate band is credible or not. If the commitment of a monetary authority to defend its exchange rate is sufficiently credible, the country can enjoy what Eichengreen calls a “target zone honeymoon” (Eichengreen 1994: 18). If this commitment becomes suspect, however, the target zone honeymoon may be replaced by a “target zone divorce” (Eichengreen 1994: 20).

In a “honeymoon” situation, market forces usually operate as a self-stabilizing automatic mechanism to ensure the exchange rate remains in the band. Suppose that there were no suspicion about the capability and the intention of a monetary authority to stay within the exchange rate band. Then people would anticipate that the slightest deviation of exchange rates over the band would be immediately corrected. This anticipation itself would urge speculators to make currency transactions that would move the exchange rate into the band. In this situation, therefore, we may imagine that maintaining exchange rate targeting becomes possible even without any intervention.

On the contrary, once suspicion arises over the capability and the intention of a monetary authority to maintain the exchange rate, the situation is turned into a “divorce.” Suppose again that the unemployment rate rises, and that the monetary authority wants to execute expansionary monetary policy so as to reduce it. In this case, however, we should remember that a policy of expanding the money supply and a policy of maintaining the exchange rate target are in conflict with each other. Therefore, if the monetary authority prefers to reduce unemployment and perform monetary expansion, its only choice would be to abandon its exchange rate targeting, and to allow it to depreciate in the market. Then speculators would be sure to engage in speculative attacks on the currency before its actual depreciation, since they can easily foresee that it will depreciate sooner or later. Once a speculative attack begins, no country can escape from enormous capital outflows and the rapid reduction of foreign exchange reserves. If the monetary authority wants to defend the exchange rate target of its currency after the beginning of the speculative attack, the only measures available would be to raise interest rates and contract the money supply. Once a speculative attack begins, therefore, the monetary authority must take policy measures that are completely contrary to its original intention, and thus the cost of maintaining the exchange rate target increases even more. This additional cost helps to make currency crises “self-fulfilling.”

This consideration necessarily leads to the next policy strategy to prevent currency crises. If a country wants to reduce a risk of inviting a speculative attack, but does not want to abandon exchange rate pegging, it must make its commitment to the peg credible. This is what Krugman calls the Caesar’s wife strategy. An example of this is the Dutch policy of pegging the guilder to the German mark, whose commitment in this case is so credible that no one tries to attack the guilder. The ultimate implementation of this strategy is, of course, currency unification through monetary union as is actually taking place in the EU.

The last strategy to prevent currency crises is the well-known one of regulating capital movements. As argued in the previous section, a speculative attack is just like an option in which speculators make deals with the monetary authority. Therefore, speculators’ incentives to

attack a currency may be somewhat suppressed by increasing the option price, which is the cost of currency transactions in this case. A device such as the “Tobin tax” may be interpreted as an intentional attempt to increase this cost.

#### **4. *The Future of Exchange Rate Arrangements and Auxiliary Strategy in the Transitional Period***

The three strategies presented so far have their own defects. The defect of flexible exchange rates is inherent in the flexibility of exchange rates itself. Large fluctuations of exchange rates and their “overshooting” seem to be common features of this regime, as the exchange rate movement of the Japanese yen to the US dollar in this decade shows. The alterations of real exchange rates stemming from these fluctuations can have very disturbing effects on the real economy, effects known as “hysteresis.” The defect of pegged exchange rates and monetary union is that a monetary policy suitable for the domestic economy becomes difficult under these systems, even if the risk of inviting speculative attacks has been successfully contained. The defect of restrictions on capital movements is that international capital transactions would be necessarily reduced, and thus the intertemporal welfare of a country would be lowered. Moreover, stringent restrictions would be needed to eliminate the slightest possibility of inviting a speculative attack. We should recall that currency crises frequently occurred under the Bretton-Woods system even though international capital movements were regulated.

No country can escape from all of these defects at the same time. In other words, any country must accept at least one of the above three problems. This is called the “irreconcilable trinity,” meaning that no country can successfully pursue three conflicting policy objectives, namely an independent monetary policy, stable exchange rates, and unrestricted movements of capital.

Until recently, each country could pursue its own policy by choosing among these three inconveniences. If there is something new in the recent crises, it may be that the measures to restrict capital movements are becoming less effective, and that vaguely committed exchange rate pegs are more at risk for speculative attack than before. It is likely that the development of financial technology and information technology has something to do with this. This means that the menu of policy strategies from which each country can choose is becoming more limited. There may be only two remaining alternatives: the choice between a free float and a common currency. Eichengreen (1994) and Krugman (1998b: 160) argue that this is the case.

As for the long-run outlook for exchange rate arrangements in the future, I completely agree with Eichengreen and Krugman. I do not anticipate the creation of any common currency other than the euro in the near future. I don’t expect to see an “Asian common currency”, although there are some in Japan who advocate this. Asia is far from being an “optimum currency area” in all respects. I expect that more and more countries will shift to the flexible exchange rate regime. In fact, the share of countries whose exchange rates float freely has been rising for two decades. The recent currency crises must have hastened this trend, since most of the countries caught in the crises have left their exchange rates to float.

Nevertheless, I think that an auxiliary strategy will be needed in the transitional period. There are still many countries in the world that adopt exchange rate pegging. Undoubtedly they want to continue doing so if possible. There are many reasons that they prefer a peg to a float.

One problem is that flexible exchange rates are not suitable for all countries. Generally speaking, the smaller a country is and the more it depends on foreign trade, the more vulnerable it is to exchange rate fluctuations. Whether a country is large or small, the ability to conduct appropriate macroeconomic policies is requisite to avoid unnecessary exchange rate fluctuations stemming from the loss of confidence. Some countries are so dependent on foreign trade that

any exchange rate fluctuations might have disturbing effects on the domestic economy. Many countries, especially the emerging economies, don't have enough macroeconomic discipline to sustain their national currencies appropriately. Naturally these countries are attracted to pegging their currencies to some dominant currency such as the US dollar, although in fact this exchange rate pegging is ultimately the source of currency crises. As a consequence, the paradoxical picture emerges that a country with less macroeconomic discipline and a greater likelihood of provoking a speculative attack is more likely to be drawn to some form of a pegged exchange rate arrangement.

The auxiliary policy strategy for such countries that are obliged to adopt exchange rate pegging is to conduct macroeconomic policies while maintaining a "target zone honeymoon." In principle, this is possible by using monetary policy to sustain an exchange rate peg and fiscal policy to sustain national income or employment. As argued in Caramazza and Aziz (1998: 14), since a country with a pegged exchange rate system must subordinate its monetary policy to maintain the peg, the burden of adjustment to shocks falls largely on fiscal policy, namely government spending and tax policies. That means fiscal policy must be flexible enough to respond to various economic shocks. The East Asian countries, just before the currency crises, needed not fiscal contraction but fiscal expansion large enough to offset the negative economic impact caused by the rise in US interest rates and the appreciation of the US dollar. Ironically, this prescription is quite the opposite of what policy officials of the IMF advised the East Asian countries at the onset of the crises.

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