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"Fundamentals" Explain Currency Crises

The currency crises in the European Monetary System (EMS) in 1992–3 and in Mexico in 1994 have re-opened a debate among economists about the cause and effect of speculative attacks on currencies operating under fixed foreign exchange rates. Previously, the consensus view was that a country faces a currency crisis when inconsistencies arise between preserving the exchange rate and protecting domestic monetary and fiscal policy for the sake of internal stability or competitiveness. Eventually, market participants note the inconsistency and launch an attack on the currency. But since the recent crises, some researchers have challenged that view with a new one, arguing that currency crises can be unpredictable events unrelated to economic fundamentals such as fiscal and monetary policy, and instead can be caused by self-fulfilling prophecies, whereby speculative attacks on currencies themselves subsequently force the economy toward adopting new policies that validate the attacks. Now, two new NBER studies, one by **Robert Flood** and **Nancy Marion** and the other by **Michael Bordo** and **Anna Schwartz,** find that the traditional view explains the crises in Mexico and the EMS well, and suggest that the self-fulfilling-prophecy view is problematic.

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In **Speculative Attacks: Fundamentals and Self-Fulfilling Prophecies** (NBER Working Paper No. 5789), Flood and Marion analyze speculative attacks on currencies, allowing for the constraints faced by policymakers, and incorporating realistic macroeconomic policies. Their analysis confirms the traditional view, that macroeconomic policies inconsistent in the longer run with a fixed exchange rate can push the economy inevitably towards a currency crisis. They also find that a government currently following consistent macroeconomic policies can suddenly face an attack triggered by a large shift in speculative opinion. But they conclude that for such an attack to succeed, historical or current macroeconomic policies must have made the exchange rate vulnerable to attack. Their analysis does a good job of explaining the key features of the Mexican currency crisis of 1994: Mexican authorities were unwilling to defend the peso by tightening monetary policy because higher interest rates would have strained an already vul-

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nerable banking system and conflicted with the goal of promoting economic activity in an election year.

In **Why Clashes Between Internal and External Stability Goals End In Currency Crises, 1797–1994** (NBER Working Paper No. 5710), Bordo and Schwartz argue that recent currency crises reflect clashes between economic fundamentals and pegged exchange rates, just as crises in the past did. They reject the view that crises reflect self-fulfilling prophecies that are not closely related to measured fundamentals. The trick, the authors say, is to identify the fundamentals.

Bordo and Schwartz review 19 historical currency crises over the centuries. In 1797, for instance, the Bank of England suspended the gold standard after losing three-fourths of its gold reserves as tensions mounted between the exigencies of financing the war with France (begun in 1793) and maintaining convertibility of currency to gold. England didn't officially return to the gold standard until 1821, five years after the war ended in 1815.

The most recent example that they cite is the EMS crisis in 1992–3. Bordo and Schwartz reject one common view: that exchange-rate stability in the EMS might have been maintained had it not been for the disruptive effects of the reunification of Germany. The conflict between EMS members' monetary autonomy and their exchange rate commitments would have been present anyway. The authors note that in late 1991, evidence of loss of competitiveness in Italy, Spain, Portugal and the United Kingdom, among others, indicated to market participants that a realignment of EMS exchange rates was predictable. When a recession worsened the situation in early 1992 and exchange rates were not adjusted to reflect it, speculative attacks began, leading to eventual devaluations and the breakdown of the EMS.

The main finding of the Bordo and Schwartz survey is that currency crises occur when internal economic conditions are incompatible with the external conditions set for the currency. This was true despite the wide differences in institutions and circumstances among the countries and episodes surveyed. They also find that the post-World War II Bretton Woods system of fixed exchange rates itself was subject to systemic crisis, as have been the subsequent attempts to fix rates among European countries. Finally, Bordo and Schwartz conclude that while the theory of self-fulfilling speculative attacks may have intellectual merit, it contributes little to our understanding of real-world events, since in every crisis examined, the fundamentals are more than adequate to account for the actions of speculators.

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Crime Causes Urban Flight

In a recent NBER Working Paper, **Julie Berry Cullen** and **Steven Levitt** use data on 137 cities for 1976–93 to analyze the relationship between crime and "urban flight." They find that each additional reported crime in a central city is associated with a net decline of about one resident. Almost all of the crime-related decline in population is attributable to increased outmigration, they discover, rather than to a decrease in new arrivals to the city. And, while higher suburban crime rates tend to keep people in central cities, their effect is much smaller than that of crimes within cities.

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In **Crime, Urban Flight, and the Consequence for Cities** (NBER Working Paper No. 5737), Cullen and Levitt find that high income households are five times more responsive than those of the poor, and households with children are twice as responsive as those without children, to changing crime rates. In contrast, after controlling for differences in income, whites and blacks show similar responses to crime. This analysis also shows that 70 percent of those people leaving central cities because of crime remain within the metropolitan area, as compared to 40 percent of all outmigrants from the central city.

In response to urban flight, property values fall and the city tax base shrinks, requiring higher tax rates to fund a given level of city services. Thus, rising crime imposes a cost not only on its victims, but on all city residents.

Saving for Retirement Would Be Less Costly if Social Security Were "Privatized"

A recent paper by NBER President **Martin Feldstein** and Faculty Research Fellow **Andrew Samwick** shows that shifting from the current pay-as-you-go system of Social Security to a system of funded Mandatory Individual Retirement Accounts (MIRAs) would permit the existing 12.4 percent payroll tax to be replaced in the long run by a payroll tax of about 2 percent. That is because a funded system has a much higher rate of return than the implicit rate in a pay-as-you-go program.

"This reduction in the payroll tax results in a reduction in the deadweight loss that is itself equal to about 2 percent of payroll," the authors continue. "Thus the long-run gain from shifting to a funded system is almost as large as the entire 12 percent payroll tax. This is equivalent to a permanent increase in real income of about 5 percent of GDP," Feldstein and Samwick conclude.

In **The Transition Path in Privatizing Social Security** (NBER Working Paper No. 5761), Feldstein and Samwick point out that current employees now pay a 12 percent payroll tax to finance the benefits of current retirees; in the transition to a funded system, these employees would have to pay this plus the contributions to fund their own future benefits. But the additional payments required in the early years of the transition are small relative to the existing payroll tax, they note, and to the long-run gains from "privatization." Feldstein and Samwick estimate that a transition to a fully funded program could be made with a surcharge of less than 1.5 percent of payroll during the early part of the transition. "After 25 years, the combination of financing the pay-as-you-go benefits and accumulating the funded accounts would require less than the current 12.4 percent of payroll."

> "...the additional payments required in the early years of the transition are small relative to the existing payroll tax...and to the long-run gains from 'privatization'."

How is this possible? Consider an individual who is 45 and who "saves" $2600 to finance retirement consumption at age 75, the authors suggest. With the current Social Security system's real return of 2.5 percent, that $2600 will increase over the 30 years to $5454. But if the same individual had earned a real 9 percent return on this retirement saving — which is historically plausible — then the $5454 could have been "purchased" at age 45 for only $411, not the actual $2600. If the $2600 contribution is obtained by a 12.4 percent payroll tax, they explain, this implies that the tax could be reduced to 1.96 percent. In summary, the 45-year-old worker would save 10.4 percent of payroll in contribution and an additional 2.5 percent of payroll in reduced deadweight loss. For that individual, the gain would equal 12.9 percent of payroll, or more than the entire initial level of the payroll tax.

The relative size of the gain depends on the age of the individual, Feldstein and Samwick emphasize. For someone who is 30, the gain is substantially larger; for someone on the verge of retirement, it is significantly smaller. A 30-year-old who now pays a tax of $2600 to buy benefits for age 75 could buy those benefits in a funded program (with a 9 percent return) with a payment of only $55. A 65-year-old who is buying benefits for age 75 can only reduce the cost from $2600 to $1406.

The Yen and Its East Asian Neighbors, 1980–95: Cooperation or Competition?

Despite the increasing integration of the new East Asian economic powers with each other and with Japan, their currencies have remained closely tied to the U.S. dollar. Recent studies have shown that from 1979 to 1995 the dollar was given far more weight than the yen in setting currency values in Indonesia, Malaysia, the Philippines, Singapore, South Korea, and Thailand. Those same studies have shown, however, that the yen's influence on the currencies of Malaysia, Singapore, South Korea, and Thailand has increased in the 1990s, although it still remains small in comparison with the dollar's. In **The Yen and Its East Asian Neighbors, 1980–95: Cooperation or Competition** (NBER Working Paper No. 5720), **Shinji Takagi** builds on this past research by exam-

ining the East Asian currencies' behavior during several episodes in the 1980s and 1990s when the yen was rising or falling sharply against the dollar.

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Takagi finds that Indonesian and Philippine monetary authorities paid little attention to the yen's movements, focusing their exchange rate policies instead on a steady nominal depreciation against the dollar, a result of high domestic inflation that would otherwise have left Indonesian and Philippine products with uncompetitively high price tags. In the other countries examined, the yen played a greater role. Thailand pegs its currency strictly to a basket of foreign currencies, of which the yen is part, so the Thai baht moved up or down during periods of sharp appreciation or depreciation of the yen so as to offset a portion of its movement against the yen. The currencies of Malaysia and South Korea, meanwhile, depreciated when the yen did, but did not appreciate along with the yen, which indicates that those countries stress export promotion and see the yen as a competitor currency in the export market. The currency of Singapore, on the other hand, tracked the yen most closely when the yen was appreciating, suggesting that the country's monetary authority placed a great emphasis on price stability. Because the yen was more often than not appreciating against the dollar during the period studied, an exchange-rate policy focused on price stability, that is Singapore's stance, was most conducive to intra-regional exchange rate stability in East Asia. JF

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