Twin fallacies about exchange rate policy in emerging markets

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Two assertions about exchange rate regimes circulate with some frequency in policy circles. The first, the hypothesis of the excluded middle, holds that authorities must either choose perfectly floating exchange rates (preferably anchored by an inflation target for the central bank) or a hard (preferably irrevocable) peg. The second, seemingly unrelated, argues that the inability of emerging market economies to exercise monetary independence owes to the severe mistrust that they are perceived with by global investors because of the economic failures of prior governments. This paper argues that the theories of the excluded middle and original sin are twin and related fallacies that are contrary to theory and evidence. This paper will provide a model in which the government can choose policies consistent with either a pure float anchored by a constant money stock or a pure peg but, under certain circumstances, fail to find exchange rate stability at either corner. The problem is that the potential for regime change implies that the current government's successors may behave less admirably, which will weigh on investors' current behavior. The difficulties imparted by this expectation channel in an otherwise standard model of optimizing agents endowed with rational expectations shows both why looking back to explain credibility problems is looking the wrong way and why the excluded middle is, in fact, so crowded

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TWIN FALLACIES ABOUT EXCHANGE RATE POLICY IN EMERGING MARKETS

I. Introduction

Two assertions about exchange rate regimes circulate with some frequency in policy circles. The first, which could be called the hypothesis of the excluded middle, holds that authorities must either choose perfectly floating exchange rates (preferably anchored by an inflation target for the central bank) or a hard (preferably irrevocable) peg.[1] In the former camp tends to be the small number of industrial countries with sufficient credibility to run independent monetary policies. In the latter camp are mostly emerging market economies that have so little credibility in the financial marketplace that adopting another country's currency seems like a small sacrifice of autonomy.

The second, seemingly unrelated, notion attempts to explain why policy makers in some countries have little credibility. Eichengreen and Hausmann (1999) and Hausmann (2002) argue that the inability of emerging-market economies to exercise monetary independence owes to the severe mistrust that they are perceived with by global investors. That mistrust, exemplified by the inability of emerging market

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[1] One clear expression of this view is the quote from Summers (2000) repeated in Fischer's (2002) more nuanced discussion of the choice of exchange rate regime. Frankel, Schmukler, and Serven (2000) offer a theoretical model to explain some advantages of being at the corners. There is some ambiguity in this literature on how "hard" is a hard peg, ranging from a conventional fixed exchange rate to the adoption of an anchor currency.

economies to borrow at long maturities in their own currencies, transcends current fundamentals and traces back to the failure of prior policy makers. Hausmann dubs this "original sin" to emphasize that this lack of credibility is a taint unrelated to actions or incentives of the current crop of authorities.

This paper argues that the theories of the excluded middle and original sin are twin and related fallacies that are contrary to theory and evidence. The sense that credibility problems stem from a simple and irrational source–failures of prior generations of policy makers–lends credence to alternative regimes that seem to allow the easy purchase of investor confidence–an exchange rate regime at one of the corners. Two decades of theory and empirical evidence cumulate to argue that this is too simple an answer. As to the theory, the literature on time inconsistency, pioneered by Guillermo Calvo (1978), has amply demonstrated that the inability to precommit future policy decisions gives reason to doubt that the current regime will be maintained. That doubt stems, not from the record of prior failures, but from the inconsistency of incentives in the future.

As to the evidence, Reinhart (2000) and Calvo and Reinhart (2002) have documented the record of what authorities actually do rather than what they report and have found that the excluded middle is crowded indeed. Many exchange rate regimes–particularly in emerging market economies–exhibit limited flexibility. That is, the variability of exchange rates is damped relative to a typical asset price but not so

small as to be considered a peg. These very dirty floats or quite soft pegs seem to reflect an unwillingness on the part of authorities to trust the foreign exchange markets enough to either float freely or to be fixed. For Calvo and Reinhart, this is evidence of a "fear of floating."

This paper will provide a model in which the government can choose policies consistent with either a pure float anchored by a constant money stock or a pure peg but, under certain circumstances, fail to find exchange rate stability at either corner. The problem is that the current government faces an election at a later date, and the possibility that its successors may behave less admirably will weigh on investors' current behavior. The difficulties imparted by this expectation channel in an otherwise standard model of optimizing agents endowed with rational expectations shows both why looking back to explain credibility problems is looking the wrong way and why the excluded middle is so crowded.

The next section provides some stylized evidence that suggests policy makers in many Latin American countries do face investor objections that would seem consistent with original sin. That section then takes what might seem like a detour in an economics paper by examining early Christian thought on original sin. However, this digression shows that a consistent interpretation of the doctrine stresses that the "stain of Adam" made people fallible so that their *future* actions cannot be counted on. Hence, original sin provides a rational warning about the future, not an irrational

stigma from the past.

The model in Section III uses the device of a future election to show the problems about choosing a corner solution for an exchange rate regime, and the last section offers concluding comments.

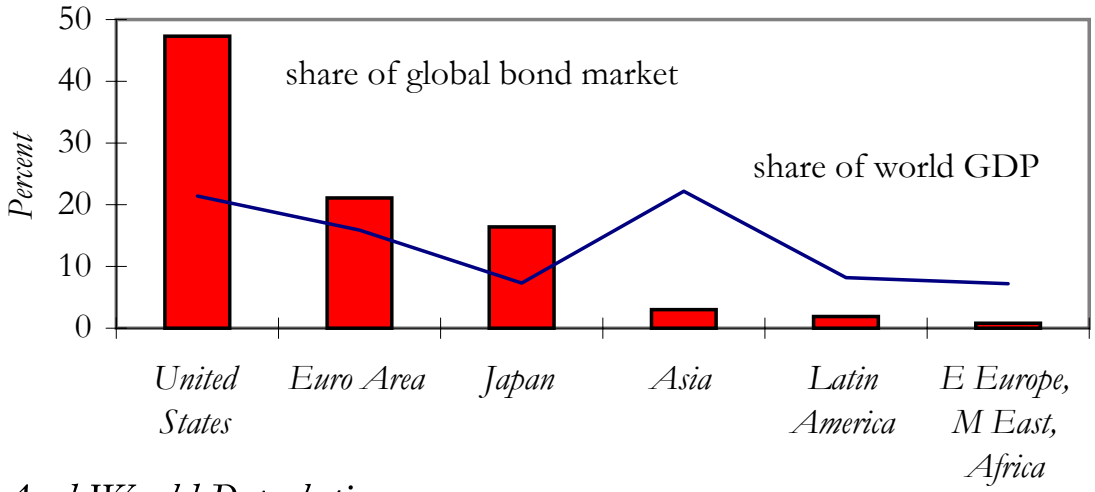
II. Unequal Market Access and Original Sin

We focus on the economies of Latin America because their experience has, unfortunately, provided ample evidence of the withdrawal of global investors. Three pieces of evidence establish this record.

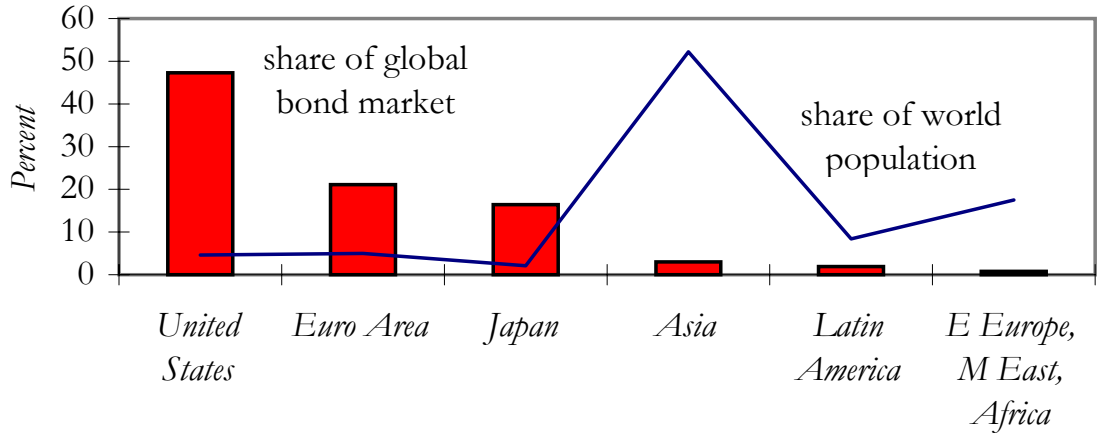
Figure 1 shows recent calculations of the distribution of bonds on the global market by original issuer (as related in the International Monetary Fund's *Global Financial Stability Report*, 2002). In most model of optimizing portfolios, the amount of debt outstanding should be proportional to income. That is, we should expect that shares on the global bond market should approximate shares of world GDP. As is evident in the solid line at the top panel, industrial countries are considerably overrepresented on the world market, with the United States' presence about double its proportion of world income. Since global shares have to sum to 100 percent, the industrial counties' overages are mirrored by the small participation on the global debt market of emerging markets, especially developing Asia but also including countries in the Western Hemisphere. The relatively high levels of income per capita in the industrial countries also implies that comparisons based on share of world population,

Figure 1: The Global Bond Market, 2001

And World GDP



And World Population



Source: (lines) *IMF World Economic Outlook* (9/02) and
(bars) *Global Financial Stability Report* (10/02)

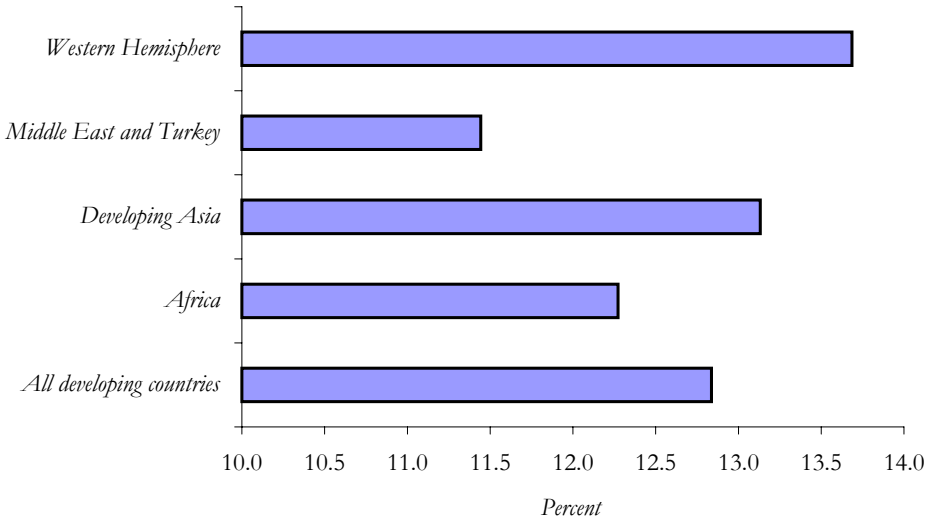
as in the bottom panel, are even more skewed.

Reflecting this limited participation in global bond markets, issuers in emerging markets have found it relatively more advantageous to rely on shorter maturities. As shown in Figure 2, which is based on data from the International Monetary Fund's *World Economic Outlook* (IMF, 2002), this holds with particular force for the developing countries of the Western Hemisphere. About 14 percent of the external debt of those nations, on average over the past eight years, had a short maturity, the highest share of the major developing country groups.

Despite this relatively short maturity, as shown in the upper panel of Figure 3, developing countries in the Western Hemisphere have paid a higher rate on their external debt than the other main groups of developing countries. Moreover, as is evident in the bottom panel, that rate is especially volatile for countries in the Western Hemisphere. In part, the higher and more volatile rate reflects a smaller proportion of official aid at preferential rates in the total. But some portion of the higher and more volatile interest cost evidences a distaste on the part of global investors for the obligations of developing countries of the Western Hemisphere.

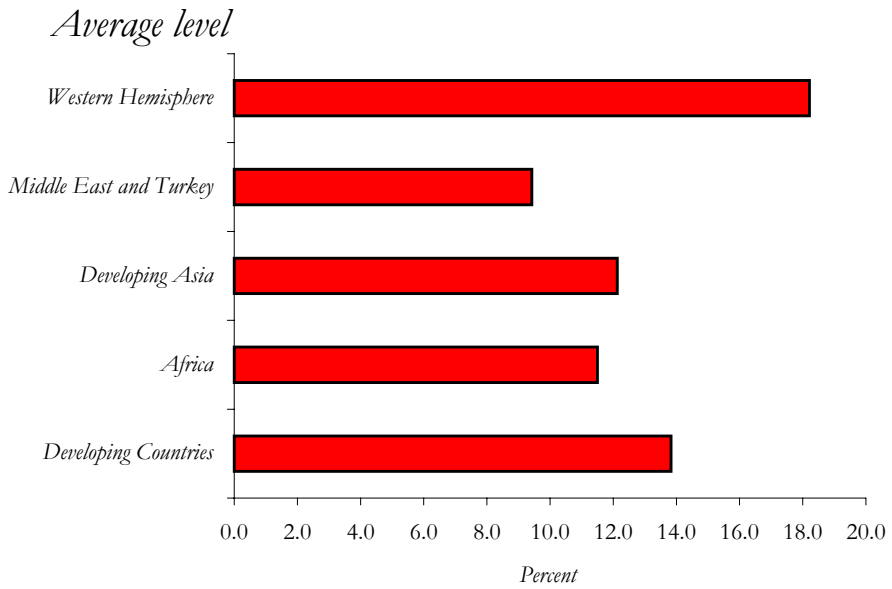
Why so? In a series of influential papers written alone or with coauthors, Ricardo Hausmann has offered a simple explanation for the inability of Latin American countries to exert their presence on global financial markets (Eichengreen and Hausmann, 1999, and Hausmann, 2002, among others). In particular, the

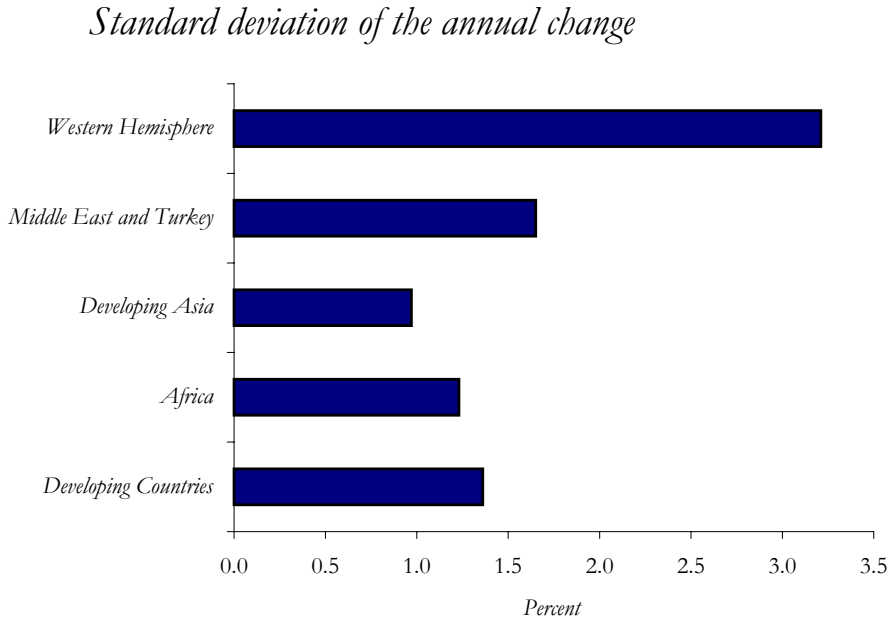
Figure 2: Share of Short-term in Total External Debt, 1994 to 2002



Source: IMF, World Economic Outlook (9/02)

Figure 3: Implied Interest Rate on External Debt, 1980 to 2002





Source: IMF, *World Economic Outlook* (9/02)

evidence that developing countries cannot borrow abroad in their own currencies or at longer maturities in any currency is taken to mean that global investors attach some stigma to current governments as a result of the failure of previous governments. This market failure creates the maturity and currency mismatches on balance sheets in emerging market economies that are central to episodes of financial crisis and contagion. While the perspective of two centuries of default experience provided by Kaminsky, Reinhart, and Vegh (2002) does suggest that Latin American countries are different, there are a variety of considerations in understanding the doctrine of original sin and how it might apply to markets.

At the sake of taking what appears to be an unconventional approach, we will spend a little time examining what the doctrine of original sin meant to the framers–Christian saints of the early millennium. Understanding what original sin meant in its original context will reveal an important inadequacy in its modern incarnation. In particular, early Christian scholars devoted considerable attention to explaining why a just God would punish the children of Adam for transgressions in the Garden of Eden. This literature can be roughly summarized as offering a three-part syllogism:

(1) Because of Adam's sin, all his children are mortal and fallible. In the Epistle to the Romans, St. Paul explained that ". . . for as by the disobedience of one man, many were made sinners . . ."

(2) As a result of that original sin, all people now alive share the fallibility of Adam. St. Thomas Aquinas offered that the role of the individual should be seen as that as a part of society, or that ". . . an individual can be considered either as an individual or as part of a whole, a member of a society . . . Considered in the second way, an act can be his although he has not done it himself, nor has it been done by his free will but by the rest of society or by its head. . ."[2]

(3) As a logical consequence of the prior two propositions, we know that people are fallible, and those counting on their good behavior should be wary. The Christian scholar most associated with the doctrine of original sin, St. Augustine of Hippo, offered that "not what your ancestors have wrought but what you have thought is what matters."[3]

St. Augustine's doctrine is a forward-looking proposition of considerable depth. In it is a sense that the past is past. Only the part of experience that might predict future behavior is relevant for current experience. There is no stigma or stain in St. Augustine, only an appreciation of the evil that fallible people may do in the future.

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[2] As quoted in the entry in the *Catholic Encyclopedia* of 1911 on "original sin," which is on the web at www.newadvent.org.

[3] Garry Wills's (1999) biography of St. Augustine addresses these issues, with this quote appearing on page 128.

III. Exchange Rate Determination at the Corners

Our discussion of the true nature of the doctrine of original sin suggests that we should look for the problem of credibility in the possibility of future folly rather than some perceived stain from the past. Indeed, to make matters more distinct, the model embodies a monetary policy maker acting consistently with the chosen exchange rate regime. However, there will be an election at a later date that offers a nontrivial possibility of regime change in which the subsequent policy maker will not act so appropriately. By making the probability of regime change dependent on conditions in the foreign exchange market, the possibility of a transition to a bad central banker will complicate–indeed, potentially thwart–the efforts of the good central banker at either exchange-rate corner, a pure float or a pure peg. Thus, an understanding of the inability of policy makers to precommit the actions of successors–to St. Augustine, the fallibility introduced by original sin–helps to explain why the excluded middle is in fact so crowded.

To do this, we consider a simple continuous-time framework grounded in household optimization under, first, a pure float with an independent money growth target consistent with price stability, and second, a pure peg supported by a consistent domestic financial policy. This small nation produces a single good in fixed supply, taking the foreign price level as given. To simplify matters, the foreign price level is fixed over time at one. The (logarithm of the) exchange rate, e, is quoted as home

currency per unit of foreign currency so that the (logarithm of the) domestic price level also equals e.[4]

The government spends a fixed amount per period on goods and varies a lump-sum tax in an amount that satisfies its flow budget restraint so as to keep the stock of its outstanding debt constant. That government spending is perfectly wasteful, in that it does not enter household utility. The instantaneous utility of the representative household depends on consumption and real money balances, the latter written in logarithmic form as $m - e$. As Calvo (1979) showed in a model with fixed output, the solution to this planning problem reduces to a Cagan-style demand for money, as in

$$m - e = -\eta \dot{e}, \qquad \textbf{(1)}$$

where the dot operator denotes the derivative with respect to time and η, the interest elasticity of the demand for money, is constant.[5]

As is familiar from Mussa (1982) and Obstfeld and Rogoff (1995), the determination of nominal magnitudes depends on the exchange rate regime and the associated monetary and budgetary policy rules. Our complication will be to

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[4] Lower case letters will denote the logarithm of the variable and time subscripts will be suppressed where possible.

[5] Chapter 8 of Obstfeld and Rogoff (1996) provides a clear derivation of this money demand function and its applicability to models of exchange rate determination.

introduce a nontrivial role for regime change. Specifically, at time t, it is announced that an election will be held at time T, $t < T$. The current incumbent is committed to keeping the stock of domestic reserves constant. However, the opposition party has credibly included in its platform a more expansionary policy of increasing domestic reserves at the rate μ.

The probability of a change in power is λ, with 1-λ, therefore, equaling probability that the government stays in office. Voters are sensitive to financial market conditions at the time of the election. Simply put, an exchange rate different from that consistent with price stability will alienate some of the citizenry–although it is likely to be different people disappointed when the exchange rate is deemed to be too high than when it is deemed too low. To capture the sense that what goes on in financial markets speaks to the competence of the incumbent, we assume that the probability of electoral success for the opposition depends on the square of the deviation of the exchange rate at the time of the election from its level consistent with price stability, $\bar{e}$, or

$$\lambda = V\left[\left(e_T - \bar{e}\right)^2\right]. \qquad \textbf{(2)}$$

This voting function obeys the properties of a probability density function, in that

$$V' > 0, \text{ and}$$

$$\text{as } y \to \infty,\ V(y) \to 1.$$

Since there are issues other than economic at play in the election, we also assume that achieving price stability does not guarantee reelection,

$$V(0) = \underline{v},$$

where $\underline{v}$ is some constant.[6] A potential voting function that obeys these conditions is depicted by the solid line in Figure 4.

Having specified behavior, what is left is to consider the exchange rate regime.

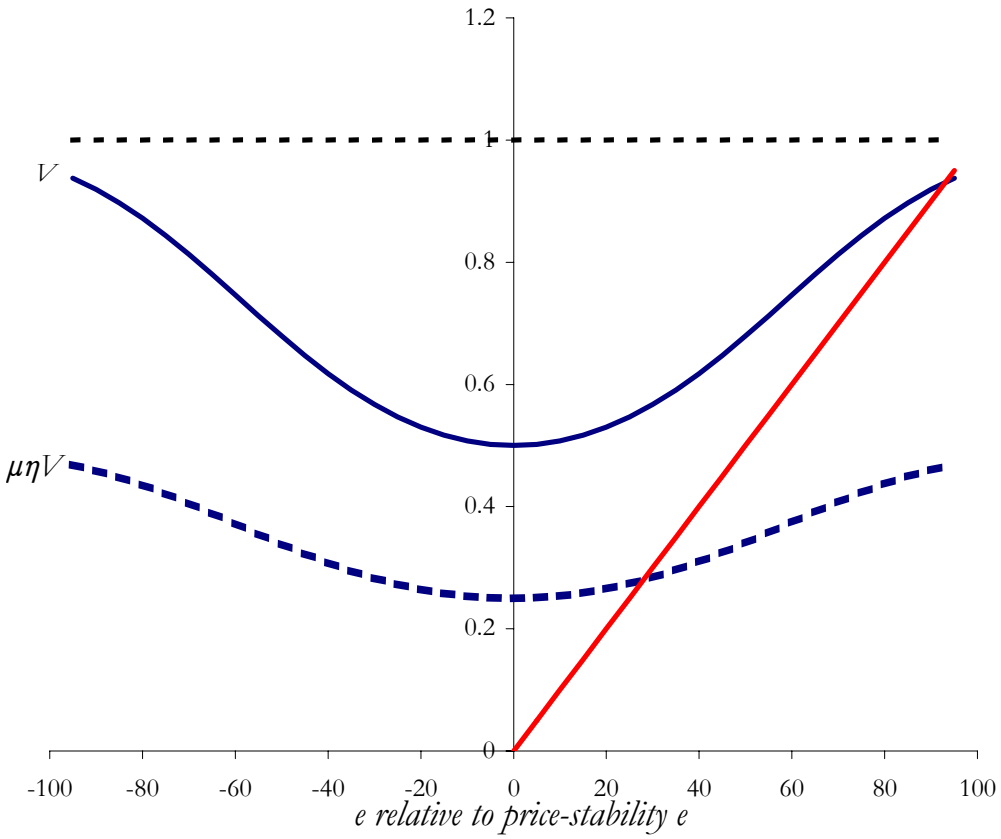
A Pure Exchange Rate Float

Let us assume that the current government is committed to a pure exchange rate float and a monetary regime of price stability. Foreswearing transacting–or even holding–foreign exchange reserves, the domestic money stock will be constant up to time T and, if the incumbent wins reelection, forever after that. However, if the opposition wins at time T, the money stock will growth at the rate μ thereafter.

The key to solving the model is to recognize that at the resolution of the sole source of uncertainty at time T, the level of the exchange rate will jump discretely and move subsequently along one of two distinct paths. Just before time T, the level of the exchange rate must balance those two outcomes so that there is no excess return

[6] In principle, the voting function could be thought of as the preference map of the median voter, as in the models discussed by Persson and Tabellini (1994) and summarized in the introduction of that book. Of course, the inconsistency that remains in our model is that agents are assumed to homogenous when deriving money demand and heterogenous in voting.

Figure 4: Determining the Exchange Rate at time T



in expected value terms. As is common in solving rational expectations models, we will work backward by first characterizing exchange rate movements post election, then the instant before the election, and lastly the evolution starting time t when the election is first called.

The economic structure of the model makes it straightforward to solve. If the incumbent wins, the exchange rate and the price level will be expected to be stable given that the money stock will be held constant. So, for all time after T,

$$\hat{e} = m, \tag{3}$$

which also defines the price-stability exchange rate, $\bar{e}$, that appears in the voting function. Similarly, if the opposition is elected, for all time after T, the exchange rate will evolve according to:

$$\tilde{e} = m + \eta\mu. \tag{4}$$

Recognize here that the exchange rate will depreciate over time at the rate μ as the money stock expands at that same pace.

The exchange rate just before the election (at the time measured an instant before T) will be a weighted average of these two possibilities, with the weights given by the voting function,

$$e_T = \lambda\tilde{e}_T + (1 - \lambda)\hat{e}_T. \tag{5}$$

We can substitute the two explanations for the behavior of the exchange rate

(equations 3 and 4) and collect terms to get:

$$e_T = m + \lambda \eta \mu. \tag{6}$$

Lastly, note that *m* equals the exchange rates's value under price stability, so that

$$e_T - \bar{e} = \lambda \eta \mu \tag{7}$$

Taking λ as fixed for a moment, this equation explains that the exchange rate just before the election will be higher than (depreciated relative to) its value under price stability the more likely the oppositions is likely to win, the more inflationary is its announced policy, and the more sensitive to interest rates is money demand.

But the probability of the opposition winning is not fixed, rather it is given by the voting function. Substituting that function (equation 2) yields:

$$e_T - \bar{e} = \eta \mu V\left[\left(e_T - \bar{e}\right)^2\right], \tag{8}$$

which is a nonlinear function in e_T that admits an intuitive geometric solution. Note that the right hand side of this equation is just a multiplicative factor of the voting function, as in the dashed line in Figure 4. The ray with unit slope emanating from the point where the exchange rate equals its price-stability level will intersect that function at the solution point. At this fixed point, the exchange rate will be depreciated relative to the value consistent with current policy continuing because market participants will factor in the chance that the election may bring the opposition

to power. Three observations stand out:

- The exchange rate will be more depreciated just before the election: the more sensitive are voters to financial market conditions, the more inflationary is the opposition's policy, and the more sensitive are households to interest rates;
- The incentive of the opposition to assure financial market participants is quite limited. With a severe inflationary threat, financial market conditions are more likely to be disorderly, casting doubt in the minds of voters about the competency of the incumbent.
- Speaking outside the confines of the model, if it is in the interest of the opposition to appear more inflationary before the election, then it might also revise its position to be less accommodative after victory, a reversal common in models of political economy.

Having determined the exchange rate at time T, we now have an anchor to understand dynamics from the point the election is called onward to the election, a problem familiar in the literature since Wilson (1979). The specification of money demand implies that, with the money supply fixed, the exchange rate follows an unstable differential equation,

$$\dot{e} = \frac{1}{\eta}[e - m]. \qquad \textbf{(9)}$$

This equation must hold at every point from time equals t to T, but we also know that the exchange rate must wind up at e_T (the solution to equation 8) to eliminate excess returns on the election outcome. Therefore, the exchange rate at the moment the election is called must move from its price-stability value to a level consistent with it evolving so as to equal e_T at time T.

The general solution to the first-order differential equation given by equation 9 is an exponential with root $1/\eta$. We can write the specific solution, after some rearrangement, as:

$$e_t = \bar{e} + \frac{e_T - \bar{e}}{\exp\left(\frac{T-t}{\eta}\right)}. \qquad \textbf{(10)}$$

When the election is called, the exchange rate depreciates on impact relative to its prior value consistent with price stability. The extent of that depreciation depends on the same determinants of e_T already discussed and the nearness of the election, in that as the excess of T over t grows, the exchange rate stays closer to its price-stability value.

To stress an obvious mathematical point: Within this model, the determination of the exchange rate is highly nonlinear. The economics as a result is that even governments playing by the rules of a pure float and monetary conservatism may not

observe a stable exchange rate. That market outcome will depend on potentially changeable notions of the opposition's odds of victory and policies once victorious. And the problem is not in the government's past, it is inherent in its future. In the face of such potential volatility in financial markets and the electoral stakes threatened by that volatility, it is also understandable why a central bank might be tempted to vary monetary policy to offset incipient movements in the exchange rate, including by intervening in the exchange market. That is, one reason policy makers might pull away from the corner of a pure float is that there desire for job security.

A Pure Peg

Essentially the same framework can be applied to examine the case when the incumbent has committed to maintain the exchange rate fixed at some fixed level, $\bar{e}$, and chosen domestic monetary and budgetary policies consistent with that peg holding indefinitely. Working from the same model of private behavior, we will shows that it is possible for a similar outcome as in the prior section to occur–a government following the rules of the game is not rewarded with a stable financial market because of concerns about the behavior of potential subsequent policy makers.

As to the model, the central bank has two assets on its books that represent the counterparts of its monetary base, foreign exchange reserves, B^F, and domestic

securities, B^H.[7] Assuming 100 percent reserve requirements and no other items on the central bank's balance sheet, basic accounting tells us:

$$\exp(m) = \exp(\bar{e}) \cdot B^F + B^H. \quad \textbf{(11)}$$

In order to hold the peg indefinitely, the current government is assumed to keep B^H constant, implying as in the previous example that the money stock would be constant in the absence of pressures in foreign exchange markets.

At time *t*, however, an election is called in which the opposition has promised to expand the domestic portion of the monetary base at the rate μ, although it has also promised to keep the exchange rate fixed as long as it can. This policy, of course, will ultimately come to tears, as the expansion of domestic reserves will have to be offset by sales of foreign exchange reserves in order to keep the exchange rate fixed. When the new government burns through those foreign exchange reserves, it will have to adopt a float. Krugman's (1979) insight was that the foreign reserves run will be brought forward in time by market participants to ensure that the expected future path of the exchange rate remains continuous, thereby eliminating any excess returns.

While we know that the peg will ultimately fail if the new government is elected, the question is whether the run might occur on the incumbent's watch even

[7] This follows the exposition in Obstfeld and Rogoff (1996), pp. 558-566. In the standard version of this model, which we adhere to, the central bank is assumed to use its foreign exchange reserves to defend its peg and keep domestic reserves along some predetermined baseline.

though the government is playing by the rules of the game. A bit of introspection can show that the answer potentially is yes, depending on the voting function, the extent to which the oppositions plans to be inflationary, the sensitivity of money demand to interest rates, and the initial stock of foreign reserves. The key modeling feature to recognize is that the demand for money has to be satisfied at every point in time. If agents begin to expect depreciation, they will reduce their demand for money. To hold the peg, the central bank has to reduce the supply of money–the counterpart to which is its foreign exchange reserves–to match the reduced demand. The peg breaks down exactly at the point when market participants realize that only the sale of all foreign reserves would equalize the money supply to the reduced demand for money at the pegged rate. At that point, investors run on the foreign exchange reserves and the exchange rate subsequently depreciates, validating expectations.

Logically, there are three potential points when the peg could fail: before the election, when the election results are announced, or sometime after the election of the opposition. We will only discus the first case, which is the counterpart of the prior section where the good-behavi ng government suffers from the potential folly of its successors. If the peg fails before time T, we know that at time T:

- the government has already depleted its foreign exchange reserves,
- the nominal stock of money equals B^H, and
- the exchange rate is freely floating.

To solve the model, we characterize equilibrium around *T* assuming that the peg has already failed, we next determine what condition must hold for that to have been the case, and then we solve backward to determine when in time the run on reserves must have occurred.

Had the peg held for ever, by definition, the exchange rate would equal that consistent with price stability, as in

$$\bar{e} = m = \ln\left[B^H + \exp(\bar{e})\, B^F \right] \qquad \textbf{(12)}$$

as was explained in our derivation of equation 3 above. After the run, the money supply will be lower by the exhaustion of foreign exchange reserves, implying that the exchange rate that prevails if the incumbent is reelected will be:

$$\bar{\bar{e}} = \ln\left[B^H \right], \qquad \textbf{(13)}$$

which is lower than that entering the voting function–the official peg rate–because the incumbent will have reduced the money stock in a futile defense. The irony, of course, is that the exchange rate ends up ultimately appreciated as a result of the run–if the incumbent is reelected. The exchange rate prevailing should the opposition win reflects the higher expected rate of depreciation, weighted by the probability of a change in regime, and the smaller money stock given that reserves have already been depleted. Similar to the derivation of equation 9, substituting into the money demand

function and making use of the voting function, we can write the difference between the actual exchange rate at time T and that expected to prevail if the incumbent wins as:

$$e_T - \bar{\bar{e}} = \eta\mu V\left\{\left[\left(e_T - \bar{e}\right)^2\right]\right\}, \tag{14}$$

to ensure that no arbitrage profits are expected at the announcement of the election results. Note that we can add the term $\bar{\bar{e}} - \bar{e}$ to both sides of this equation to yield:

$$e_T - \bar{e} = \left(\bar{\bar{e}} - \bar{e}\right) + \eta\mu V\left[\left(e_T - \bar{e}\right)^2\right]. \tag{15}$$

The first term (which is negative) is given by the difference between equations 12 and 13, which is a nonlinear transformation of the initial composition of the central bank balance sheet. Hence, we can solve the model geometrically with the same apparatus as in Figure 4. The one difference is that the ray with unit slope is shifted in the amount $\bar{\bar{e}} - \bar{e}$ to the left, reflecting the negative wedge introduced because the exchange rate delivered by the incumbent if the peg fails differs from that desired by voters. The extent of the leftward shift depends on that disappointment–which will be proportional to the initial share of foreign reserves in the central bank's balance sheet (that is because a successful run would deplete a large proportion of the money stock).

We can thus characterize the exchange rate at time T if a run has occurred. But will it? The peg will have failed if the expectation of exchange rate depreciation lowers the demand for money beyond the ability of the central bank to reduce the supply of money be selling off foreign exchange reserves. In an expectational sense, the anticipated rate of depreciation is $V\mu$ and, accordingly, the demand for money will be:

$$\ln\left[\exp(\bar{e})\cdot B^{F} + B^{H}\right] - \bar{e} = -\eta V\mu. \qquad \textbf{(16)}$$

If this equilibrium can be supported by a positive level of foreign reserves, then the peg will hold up to the election. If the incumbent is reelected, it can hold indefinitely thereafter. From this, a sufficient condition for the peg to fail before the election is apparent. If

$$\bar{e} < \ln(B^{H}) + \eta V\mu, \qquad \textbf{(17)}$$

then the demand for money at the pegged exchange rate has fallen to the point that would require foreign exchange reserves to be negative, which is impossible. Hence, the peg must have failed before time T, despite supportive government policies. Note that this depends only on the parameters of the model, the intentions of the opposition, and the initial level of domestic reserves. Thus, it is possible that the good behavior of the current government to be undermined by concerns about the policies of its *potential* successor.

When will the run occur on the incumbent's watch? This just requires solving differential equation 10 for the time at which the exchange rate equals the pegged rate even though foreign reserves have disappeared. The result is an exponential similar in form to equation 11. Once again, it is the expectation of future failings that market participants bring forward. And it is the possibility that a policy maker might be punished despite good current performance that may make a pegged rate corner less palatable than exercising some element of discretion.

IV. Conclusion

We have argued that the notion of original sin has furthered interest in pinning the exchange rate regime to a corner, either a pure float or a pure peg. If policy makers in some emerging market economies are indelibly stained by the past mistakes of others, they will never be trusted by markets to exercise discretion wisely. Our reading is different: The legacy of those who defaulted was not an irredeemable stain that sets them apart from others in otherwise similar circumstances. Rather, their legacy was weak institutions, a lack of political comity in part associated with an unequal distribution of income, and a capricious attitude toward the rule of law. Such attitudes made the initial default possible and, as that legacy is handed down to subsequent generations, now makes future defaults and other forms of expropriation more likely.

To assert that some countries are subject to irrational discrimination on the part

of global investors pushes off responsibility to others and delays the institutional reforms necessary to make real progress. Seeing the problem as a deep-rooted inability to commit in advance so that good near-term behavior may not be viewed as likely to be sustained implies that there may be no easy answer to the problem of recurring financial crises in emerging markets. But that is probably a more realistic answer.

In the presence of an important expectations channel–which our model suggests is highly nonlinear–policy makers might see being somewhat ambiguous in describing their current regime as constructive. Some discretion–whether called a dirty float or a flexible peg–may give them the ability to lean against such expectational shocks. Moreover, such ambiguity may make defining success or failure harder, thereby militating against voter backlash.

V. References

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