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CHAPTER 3

MONETARY GOVERNANCE IN A WORLD OF REGIONAL CURRENCIES

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One of the most remarkable developments in the world economy at the dawn of the new millennium is the rapid acceleration of cross-border competition among currencies–what I have elsewhere called the *deterritorialization* of money (Cohen 1998).[1] Circulation of national currencies no longer coincides with the territorial frontiers of nation-states. A few popular monies, most notably the U.S. dollar and the euro (succeeding Germany's Deutschmark, the DM) have come to be widely used outside their country of origin, competing directly with local rivals for both transactions and investment purposes. The origins of this development, which economists call currency substitution, can be found in the broader process of globalization, which for the purposes of this volume, following Kahler and Lake (Chapter 1) may be understood to refer to economic integration at the global level. The result is a fundamental transformation in the way money is governed. Where once existed *monopoly*, each state claiming absolute control over the issue and circulation of money within its own territory, we now find something more like *oligopoly*–a finite number of autonomous suppliers, national governments, all vying ceaselessly to shape and manage demand for their respective currencies. Monetary governance, at its most basic, has become a political contest for market loyalty, posing difficult choices for policymakers.

Among the alternative policy choices available to governments today, an option that is attracting increasing attention is replacement of national currencies with a *regional* money of some kind. Currency regionalization occurs when two or more states formally share a single money or equivalent. Broadly speaking, two main variants are possible. First, countries can agree to merge their separate currencies into a new joint money, as members of Europe's Economic and Monetary Union (EMU) have done with the euro. This is *currency unification*, a strategy of alliance. Alternatively, any single country can unilaterally or by agreement replace its own currency with an already existing money of another, an approach typically described as full or formal *dollarization*.[2] This variant, a more subordinate strategy of

followership, has long been official policy in a miscellany of tiny enclaves or microstates around the world, from Monaco to the Marshall Islands, as well as in Panama and, for many years, Liberia; and was more recently adopted by Ecuador and El Salvador, each of which now uses America's greenback in place of its own former currency.

The emergence of regional currencies can be regarded as a logical corollary of the intense competitive contest among monies–a Darwinian struggle where, ultimately, only the fittest may survive. Among informed observers today it is rapidly becoming conventional wisdom that the number of currencies in the world will soon decline.[3] The only question is what the resulting population of monies will look like. Scholars are just beginning to explore this critical issue.[4]

Not all local currencies will disappear, of course. Even in today's globalizing world, many states remain determined to preserve some semblance of their traditional monetary sovereignty. But the range of countries likely to choose the regional option, in one form or another, is certainly great enough to raise significant questions for the future of monetary governance. Currency regionalization, in contrast to a strictly national money, implies an upward shift in the delegation of formal authority. Monetary sovereignty is either *pooled* in a partnership of some sort, shifting authority to a joint institution like the European Central Bank (ECB), or else *surrendered* wholly or in part to a dominant foreign power such as the United States.[5] Many governments thus are faced with a tricky tripartite choice: traditional sovereignty, monetary alliance, or formal subordination. How will they decide?

The aim of this essay is to provide the first building blocks for a positive theory of currency regionalization. In the spirit of the actor-oriented framework outlined by Kahler and Lake (Chapter 1), the analytical focus here is the state–specifically, central decisionmakers responsible for currency policy. The working assumption is that economic globalization is driving policymakers to reconsider their historical preference for strictly national money. The question is: What delegation of authority is most likely to emerge in individual countries? What conditions are most likely to influence the choice among available options?

The essay is organized as follows. I begin in the first section with a brief look back at the dramatic transformation of global monetary relations that has occurred in recent decades–a period during which many governments, finding it increasingly difficult to sustain the market position of uncompetitive national currencies, have begun to reflect instead on the possibility of a regional currency of some kind. Section II then highlights the considerable leeway available in designing alternative forms of either currency unification or dollarization, while Section III identifies key factors that can be expected to dominate the calculations of rational policymakers in thinking about the choices before them. Taking all factors into account, it is clear that for many states traditional sovereignty will remain the preferred option. But taking account of possible variations in the degree of regionalization, it is also clear that for

many other countries some form of monetary alliance or subordination could turn out to be rather more appealing.

Can individual state preferences be predicted? Section IV surveys the empirical record, looking at countries that have rejected regionalization as well as those that have embraced it. Comparative analysis suggests that outcomes will depend most on country size, economic linkages, political linkages, and domestic politics. The relevance of these variables is then illustrated with some brief case studies in Section V. Section VI concludes the essay with a few generalizations about the future of monetary governance in a world of regional currencies.

I. The New Geography of Money

That the global monetary environment has been greatly transformed in recent decades is undeniable. A half century ago, after the ravages of the Great Depression and World War II, national monetary systems—with the notable exception of the United States—were generally insular and strictly controlled. Starting in the 1950s, however, barriers separating local currencies began gradually to dissolve, first in the industrial world and then increasingly in many emerging-market economies as well. Partly this was the result of an increased volume of trade, which facilitated monetary flows between states. But even more it was the product of intense market competition which, in combination with technological and institutional innovation, offered an increasingly freer choice among currencies. Currency substitution widened the range of opportunities for a growing number of actors at all levels of society.

Deterritorialization and governance[6]

Most scholarly attention has been paid to the remarkable growth in recent decades of capital mobility, reflected in a scale of international financial flows unequaled since the glory days of the nineteenth-century gold standard. The high level of capital mobility today is commonly cited as one of the most visible artifacts of contemporary globalization. But these flows are just part of the story of money's growing deterritorialization. A focus on capital mobility, emphasizing integration of financial markets, highlights only one of the standard functions of money: its use as a store of value. In fact, the interpenetration of monetary systems today has come to be far more extensive, involving *all* the functions of currency—not just money's role as a private investment medium but also its use as a medium of exchange and unit of account for transactions of every kind, domestic as well as international. Cross-border currency competition means much more than capital mobility alone.

Deterritorialization is by no means universal, of course–at least, not yet. But it is remarkably widespread. Krueger and Ha (1996) estimate that foreign currency notes in the mid-1990s accounted for twenty percent or more of the local money stock in as many as three dozen nations inhabited by at least one-third of the world's population. In all, as much as one-quarter to one-third of the world's paper

money supply is now located outside its country of issue. Most currency substitution is concentrated in Latin America, the Middle East, and republics of the former Soviet Union, where the dollar is favored; or in East-Central Europe and the Balkans, where the DM traditionally predominated. By a different measure, focusing on foreign-currency deposits rather than paper money, the International Monetary Fund identifies some eighteen nations where by the mid-1990s another state's money accounted for at least thirty percent of broad money supply.[7] The most extreme cases, with ratios above fifty percent, included Azerbaijan, Bolivia, Croatia, Nicaragua, Peru, and Uruguay. Another thirty-nine economies had ratios approaching thirty percent, indicating "moderate" penetration.

The implications of deterritorialization for monetary governance are only beginning to be understood. For specialists in open-economy macroeconomics, who typically focus narrowly on capital mobility, the significance of recent developments lies mainly in implications for the choice of exchange-rate regime. Traditionally, the exchange-rate issue was cast in simple binary terms: fixed versus flexible rates. A country could adopt some form of peg for its currency or it could float. Pegs might be anchored on a single currency or a basket of currencies; they might be formally irrevocable (as in a currency board) or based on a more contingent rule; they might crawl or even take the form of a target zone. Floating rates, conversely, might be managed or just left to the interplay of market supply and demand. More recently, the issue has been recast–from fixed versus flexible rates to a choice between, on the one hand, contingent rules of any kind and, on the other, the so-called "corner solutions" of either free floating or some form of monetary union. Today, according to an increasingly fashionable argument known as the bipolar view or two-corner solution, no intermediate regime can be regarded as tenable (Fischer 2001). Owing to the development of huge masses of mobile wealth capable of switching between currencies at a moment's notice, governments can no longer hope to defend policy rules designed to hit explicit exchange-rate targets. The middle ground of contingent rules has in effect been "hollowed out," as Barry Eichengreen (1994) memorably put it.

But that too is just part of the story. In reality, more is involved here than simply a choice of exchange-rate regime. At its most fundamental, what is involved is nothing less than a challenge to the long-standing convention of national monetary sovereignty. Once we look beyond capital mobility alone to the broader phenomenon of currency competition, we see that in many areas of the world the traditional dividing lines between separate national monies are becoming less and less distinct. No longer are most economic actors restricted to a single currency—their own home money—as they go about their business. Cross-border circulation of currencies, which had long been common prior the emergence of the modern state system, has dramatically re-emerged, resulting in a new geography of money. The functional domains of many monies no longer correspond precisely with the formal jurisdiction of their issuing authority.

Currency deterritorialization poses a critical challenge because governments have long relied upon the advantages derived from formal monetary monopoly to promote their conception of state interest. In fact, five main benefits are derived from a strictly territorial currency: first, a potential reduction of domestic transactions costs to promote economic growth; second, a potent political symbol to promote a sense of national identity; third, a powerful source of revenue (seigniorage) to underwrite public expenditures; fourth, a possible instrument to manage the macroeconomic performance of the economy; and finally, a practical means to insulate the nation from foreign influence or constraint. But all these gains are eroded or lost when a government is no longer able to exert the same degree of control over the use of its money, by either its own citizens or others. Instead, in a growing number of countries, policymakers are driven to compete, inside and across borders, for the allegiance of market agents—in effect, to sustain or cultivate market share for their own brand of currency. The monopoly of monetary sovereignty yields to something more like oligopoly, and monetary governance is reduced to little more than a choice among marketing strategies designed to shape and manage demand.

Broadly speaking, for affected states, four strategies are possible, depending on two key considerations—first, whether policy is defensive or aggressive, aiming either to preserve or promote market share; and second, whether policy is unilateral or collective. These four strategies are:

(1) *Market leadership*: an aggressive unilateralist policy intended to maximize use of the national money, analogous to predatory price leadership in an oligopoly.
(2) *Market preservation*: a status-quo policy intended to defend, rather than augment, a previously acquired market position for the home currency.
(3) *Market alliance*: a collusive policy of sharing monetary sovereignty in a monetary union of some kind, analogous to a tacit or explicit cartel.
(4) *Market followership*: an acquiescent policy of subordinating monetary sovereignty to a stronger foreign currency via a currency board or full dollarization, analogous to passive price followership in an oligopoly.

Of these four, a strategy of market leadership is of course generally available only to governments with the most widely circulated currencies, such as the dollar, euro, or yen. For the vast majority of states with less competitive monies, decisionmaking is limited to the remaining three–a tricky tripartite choice.

The basic question

The basic question is plain. What constraints on national policy are states willing to accept? Should policymakers seek to sustain their traditional monetary sovereignty (market preservation)? Or, alternatively, should they countenance delegating some or all of that authority upward, either to the joint institutions of a monetary union (market alliance) or to a dominant foreign power (market followership)? A former president of the Argentine central bank put the point bluntly (Pou 1999: 244): “Should a

[country] produce its own money, or should it buy it from a more efficient producer?" Buying money from a more efficient producer necessarily implies a degree of regionalization in monetary affairs.

Many states, for the present at least, appear resolved to continue producing their own money. They would prefer to keep the national currency alive, no matter how uncompetitive it may be. Monetary sovereignty can be defended by tactics of either persuasion or coercion. Persuasion entails trying to sustain demand for a currency by buttressing its reputation, above all by a public commitment to credible policies of "sound" monetary management. The idea is to preserve market confidence in the value and usability of the nation's brand of money—the "confidence game," as Paul Krugman has ironically dubbed it (Krugman 1998). Coercion means applying the formal regulatory powers of the state to avert any significant shift by users to a more popular foreign money. Possible measures range from standard legal-tender laws, which specify what money creditors must accept in payment of a debt, to limitations on foreign-currency deposits in local banks and even to the extremes of capital controls or exchange restrictions. Both floating and contingent exchange-rate rules are consistent with a strategy of market preservation.

A desire to continue producing a national money is understandable, given the historical advantages of a formal monetary monopoly. But at what cost? As currency competition accelerates, tactics of persuasion or coercion become increasingly expensive. Growth and employment may have to be sacrificed, more and more, in order to keep playing the confidence game; widening distortions in the allocation of resources may be introduced by controls or restrictions. The costs of defending monetary sovereignty are real, a direct result of the transformation of the global currency environment. And as they continue to mount, the alternative of buying from a more efficient producer becomes increasingly appealing–or, at least, less unappealing. Not surprisingly, therefore, in a growing number of countries, more attention is being paid today to the corner solution of monetary union, in the form of either formal dollarization or currency unification.

In Latin America, for example, the idea of dollarization has become a topic of intense public debate since Argentina's former President, Carlos Menem, spoke out in its favor in early 1999. Likewise, in East-Central Europe and the Mediterranean, "euroization" increasingly is touted as a natural path for countries with close ties to the European Union (EU) or hopes of one day joining the EU. Should more governments decide to go the dollarization route, emulating the recent examples of Ecuador and El Salvador, it is not too difficult to imagine the gradual emergence of two giant monetary blocs, one centered on the United States and one on EMU's "Euroland." (Eventually a third bloc could also coalesce around the Japanese yen, though not any time soon.) As one observer has predicted:

> By 2030 the world will have two major currency zones–one European, the other American. The euro will be used from Brest to Bucharest, and the dollar from Alaska to

> Argentina–perhaps even in Asia. These regional currencies will form the bedrock of the next century's financial stability.[8]

Much will depend, of course, on the policies adopted by the market leaders, which could significantly alter the relative costs and benefits of followership as contrasted with strategies of either market preservation or alliance. Unfortunately, these policies cannot be easily predicted. On the one hand, monetary leadership can yield substantial benefits, both economic and political. Economic gains include additional opportunities for seigniorage as well as an enhanced degree of macroeconomic flexibility. Politically, an international currency may yield dividends in terms of both power and prestige. The prospect of such benefits could lead the U.S. and Europe (and/or Japan) to offer explicit incentives to potential dollarizer, especially if, as I have suggested elsewhere (Cohen 2000b), active competition for market share breaks out among the market leaders. But on the other hand there are also considerable risks in monetary leadership, including, in particular, policy constraints that could be imposed by pressures to accommodate the needs of followers. Such risks might prompt Washington and others to seek to discourage rather than encourage formal adoption of their currencies.

Absent material incentives to dollarize, some governments might instead prefer to look to the idea of currency unification, a less subordinate form of monetary union on the model of EMU. One long-standing currency union, the CFA Franc Zone, already exists in Africa; another, the Eastern Caribbean Currency Union (ECCU), functions smoothly in the Caribbean; and since the Maastricht Treaty in 1991, which set the timetable for EMU, prospects for more such alliances have been discussed in almost every region of the world.[9] EMU is clearly viewed as a test case for a strategy of pooling rather than surrendering monetary sovereignty. If Europe's experiment comes to be seen as a success, it could have a powerful demonstration effect, encouraging similar initiatives elsewhere. Alongside two (or three) major currency zones, a variety of new joint currencies could also eventually come into existence in addition to the euro.

Scenarios of currency regionalization, therefore, seem not only plausible but even likely–indeed, arguably for many states the most reasonable outcome to be expected from today's accelerating deterritorialization of money. At present there are more than 170 central banks in the world, as compared with fewer than twenty a century ago; and more than one hundred currencies that formally float more or less freely. Can anyone really believe that such a polyglot universe represents a stable equilibrium? "Convergence on regional monies is a no-brainer," writes Rudi Dornbusch (2001: 242). The logic of competition suggests that many governments could eventually yield to the market power of more efficient producers, replacing national monies with regional currencies of some kind. Regionalization of the world's monies has happened before, in medieval Europe and again during the nineteenth century, as Eichengreen and Sussman (2000) remind us. Obviously, it can happen again. For Ricardo Hausmann, formerly chief economist of the Inter-American Development Bank, the process has an almost historical

inevitability about it: "National currencies are a phenomenon of the twentieth century; supranational currencies are the solution of the future" (Hausmann 1999b: 96). That formulation may be a bit too deterministic. Nonetheless, there is little doubt that alongside national monies a new geography of regional currencies is beginning to emerge as a byproduct of globalization.

II. Degrees of Regionalization

The question is: What might that new geography look like? For individual countries a wide range of scenarios is possible, depending on the *degree* of regionalization involved. Whichever strategy a government is considering, whether alliance or followership, considerable leeway exists for variations of design along two key dimensions. These dimensions are institutional provisions for (1) the issuing of currency and (2) the management of decisions. Examples of currency regionalization have differed dramatically along each dimension, providing policymakers a rich menu. A guide to this diversity is provided in the Appendix, which contains a complete listing of all cross-border currency arrangements presently in existence among sovereign states.

Currency issue

The highest degree of currency regionalization is of course when a single money is used by all participating countries. That is the way dollarization works in many of the small enclaves and microstates that have eschewed any currency of their own, such as Micronesia and Liechtenstein (Table A-1).[10] That is also the way it works in a case of currency unification such as the ECCU, which shares the Eastern Caribbean dollar, and of course Europe's EMU. But a single money is by no means universal in regional currency arrangements. Relationships, in practice, may involve not one money but two or more bound together more or less tightly– an exchange-rate union.

Though the idea might seem counterintuitive, parallel circulation of two or more monies is in fact fully consistent with formal dollarization. Two currencies, for instance, has long been the case in Panama, where token amounts of locally issued coins (Panamanian balboas) circulate freely alongside the greenback at a fixed rate of exchange. Ecuador and El Salvador too are expected to maintain limited circulation of their own currencies even with formal dollarization, as do Kiribati and Tuvalu in the Pacific Table A-2). Local coins also used to be issued by several independent enclaves in Europe, such as San Marino and Andorra, priot to introduction of the euro. In all these cases, which may be labeled *near-dollarized* countries, the foreign currency dominates domestic money supply but falls short of absolute monopoly–a somewhat lower degree of dollarization.

Even lower on the scale is a *currency board*, such as has long existed in Brunei, Djibouti, and Hong Kong. With a currency board the home money continues to account for a large, if not dominant, part of domestic money supply. In principle, though, issue of the local money is firmly tied to the availability of

a designated foreign currency—usually referred to as the anchor currency. The exchange rate between the two monies is rigidly fixed, ostensibly irrevocably (an exchange-rate union); both currencies circulate as legal tender in the dependent country; and any increase in the issue of local money must be fully backed by an equivalent increase of reserve holdings of the anchor currency. During the 1990s new currency boards were established in a number of economies, including most notably Argentina, Bulgaria, Estonia, and Lithuania (Table A-3). All these arrangements still continue in operation except for Argentina's, which collapsed in early 2002.[11]

The lowest degree of dollarization is a *bimonetary* relationship, where legal-tender status is extended to one or more foreign monies but without the formal ties characteristic of a currency board. Local money supply is not dependent on the availability of an anchor currency, and the exchange rate is not irrevocably fixed. Bimonetary relationships exist in a diverse range of states, from Bhutan to the Bahamas (Table A–4).

Parallel circulation of two or more currencies is also consistent with a strategy of monetary alliance, as several present and past examples demonstrate (Table A-5). Closest in spirit to a single money is today's CFA Franc Zone, born out of France's former colonial empire in Africa, which combines two separate regional currencies for West Africa and Central Africa, each cleverly named to preserve the CFA franc appellation, plus one national currency, the Comorian franc (CF) for the Comoros. Together the two regional groups comprise the *Communauté Financière Africaine* (African Financial Community). Technically each of the two regional currencies is legal tender only within its own region and managed by its own regional central bank. But the arrangement is very strict in the sense that it makes no allowance for any change of the exchange rate between the two CFA francs, and circulation between the two regions is not at all uncommon.

Essentially similar were two notable exchange-rate unions established in late nineteenth-century Europe– the Latin Monetary Union (LMU), which grouped together Belgium, France, Italy, Switzerland, and Greece; and the Scandinavian Monetary Union (SMU), comprised of Denmark, Norway, and Sweden. The LMU was created in 1865, the SMU eight years later. The purpose of both was to standardize existing gold and silver coinages on the basis of a common monetary unit–in the LMU, the franc, and in the SMU, the krone (crown). Within each group, national currencies and central banks continued to exist. The separate currencies circulated freely at par, and no changes of official rates were even contemplated until the breakdown of the gold standard during World War I, which ultimately led to formal dissolution of both unions in the 1920s.

A less symmetrical, albeit comparably strict, model was provided by the Belgium-Luxembourg Economic Union (BLEU), which lasted nearly eight decades from 1922 until absorbed into EMU in 1999. Separate national monies were issued by each government, as in the LMU and SMU; but only one, the

Belgian franc, enjoyed full status as legal tender in both states. The Luxembourg franc was limited in supply by a currency-board type arrangement and was legal tender only within Luxembourg itself. The arrangement was quite binding. Only once, in 1935, was there ever a change in the exchange rate between the two francs (subsequently reversed during World War II).

At the opposite extreme is the so-called Common Monetary Area (CMA) combining the Republic of South Africa—a sovereign state for decades—with two former British colonies, Lesotho and Swaziland, and South Africa's own former dependency, Namibia (formerly the United Nations trust territory of South West Africa). The origins of the CMA go back to the 1920s when South Africa's currency, now known as the rand, became the sole legal tender in several of Britain's nearby possessions, including Basutoland (later Lesotho) and Swaziland, as well as in South West Africa, previously a German colony. But following decolonization, an arrangement that began as an early example of dollarization based on the rand has gradually been transformed into a much looser scheme representing a much lower degree of regionalization, as each of South Africa's partners has introduced a distinct currency of its own. Today the CMA encompasses no fewer than four national currencies, only one of which, the rand, is legal tender outside its country of issue. The rand circulates legally in Lesotho and Namibia—both of which can now be described as bimonetary countries—but no longer in Swaziland. The rand serves as anchor for South Africa's three neighbors, but each government formally retains the right to change its own exchange rate at will.

Decisionmaking

Provisions for the delegation of decisionmaking authority may be equally varied, whether we are speaking of dollarization or currency unification. The logic of a regional currency, by analogy with national money, would seem to call for a single central agency with strong supranational powers–the highest possible degree of regionalization—and indeed that is the case in several instances. Microstates like Micronesia or Liechtenstein, totally without any money of their own, naturally cede all powers to the central bank of the country whose currency they use. The relationship is strictly *hierarchical*, with no assurance at all that the dependent state's specific views will be taken into account when monetary decisions are made. Likewise, both the ECCU and EMU have created joint institutions (respectively, the Eastern Caribbean Central Bank and the ECB) with exclusive authority to act on behalf of the group. Monetary sovereignty is fully pooled on a principle of *parity*, officially a relationship of equals.[12] But these are by no means the only possibilities. Other examples exist to demonstrate how formal powers may be more decentralized, reducing the degree of regionalization involved.

Most unusual is the CFA Franc Zone, with its two subregional central banks–a case of shared or dual supranationality. More common is the persistence of national monetary authorities with more or less

symmetrical rights and responsibilities. The greater the degree of symmetry, the weaker is the element of supranationality.

Closest in spirit to a single central authority is the sort of highly asymmetric relationship characteristic of near-dollarized countries like Panama or Ecuador. A national monetary agency exists but without significant powers. Somewhat less demanding is a currency-board relationship, as in Hong Kong today or Luxembourg under BLEU, where local authorities may retain a significant degree of discretion depending on how the rules are written. A currency- board relationship is inherently asymmetrical, plainly favoring the central bank of the dominant partner, but need not be entirely one-sided. And yet less demanding are bimonetary relationships of the sort that exist in countries like the Bahamas and Bhutan. Least demanding is a wholly decentralized model of the sort practiced in the nineteenth century's LMU and SMU, where monetary management remained the exclusive responsibility of the members' separate central banks. Though in each case there was one central bank that could be said to enjoy disproportionate influence (the Banque de France in the LMU, the Swedish Rijksbank in the SMU), powers within each bloc were in principle symmetrical. The element of supranationality was minimal. The same principle of decentralization, implying a minimal degree of regionalization, is also characteristic of the CMA today.

III. Costs and Benefits

With such a rich menu to choose from, how will governments decide among the three broad options of market preservation, alliance, or followership? At issue are potential benefits and costs, both economic and political. Rational policymakers must take five key factors into account, all of which can be expected to vary systematically with the form and degree of currency regionalization under consideration.

Economic factors

On the economic side, three factors stand out. These are implications for (1) transactions costs; (2) macroeconomic stabilization; and (3) the distribution of seigniorage.[13] The first of these three factors argues clearly for currency regionalization in some form. The remaining two can be expected to reinforce a preference for market preservation.

(1) Transactions costs

As compared with a world of separate territorial monies, currency regionalization has one unambiguous benefit. That is a reduction of transactions costs—the expenses associated with search, bargaining, uncertainty, and enforcement of contracts. When diverse local monies are replaced by a single regional currency, whether via monetary union or dollarization, there is no longer a need to incur the expenses of currency conversion or hedging in transactions between participating economies. Trade, as a result, could be increased substantially–by as much as a factor of three, according to empirical estimates

by Andrew Rose[14]–generating considerable efficiency gains. This is the standard economic argument for monetary integration.

Indeed, nothing demonstrates the power of economies of scale more than money, whose usefulness is a direct function of the size of its functional domain. The larger a currency's transactional network, the greater will be the economies of scale to be derived from its use—what economists call money's "network externalities." Ceteris paribus, this factor implies a preference for the biggest currency regions possible. At the extreme, network externalities would be maximized if there were but a single currency in circulation everywhere–one global money.

Related to this factor are three other efficiency gains that also enhance the appeal of currency regionalization. First is a reduction of administrative costs, since individual governments will no longer be obliged to incur the expense of maintaining an infrastructure dedicated to production and management of a separate national money. That saving would of course be of most interest to poorer or more diminutive sovereignties because of the diseconomies of small scale involved in monetary governance. Second, as a supposedly irreversible institutional change, currency regionalization could also establish a firm basis for a sounder financial sector–a benefit that would be of particular value to states that previously have not enjoyed much of a reputation for price stability or fiscal responsibility. And finally, with regionalization there could be a substantial reduction of interest rates for local borrowers in countries that have not yet succeeded in establishing a solid credit rating in international financial markets. All of these gains represent additional transactions-costs savings and, as such, carry the same implied preference for the biggest currency regions possible.

Because of the power of economies of scale, savings will be substantial for even a low degree of regionalization. Marginal benefits will diminish with successively higher degrees of regionalization.

(2) Macroeconomic stabilization

Counterbalancing regionalization's efficiency gains, however, which are all of a microeconomic nature, is a potentially serious cost at the macroeconomic level: the loss of an autonomous monetary policy to manage the aggregate performance of the economy. This is the standard economic argument *against* monetary integration. Individually, governments give up control of both the money supply and exchange rate as policy instruments to cope with domestic or external disturbances. The more shocks there are likely to be and the more they can be expected to be asymmetric between economies, the greater will be the disadvantage of a single regional money. Ceteris paribus, this factor thus implies a preference for *avoiding* currency regionalization to the extent possible–just the reverse of the transactions-cost factor. As Krugman has written, the challenge "is a matter of trading off macroeconomic flexibility against microeconomic efficiency" (Krugman 1993:4).[15]

On balance, the loss will be least onerous for countries that have already experienced substantial erosion of monetary autonomy owing to the growing deterritorialization of money. The greater the degree of informal currency substitution that has already occurred, reflecting a local currency's lack of competitiveness, the greater is the degree of constraint imposed even now on a government's ability to manage macroeconomic conditions–precisely the circumstance that is leading increasing numbers of countries to look for a more efficient producer of money. Indeed, the loss of autonomy might even be welcomed in some countries where past abuses of a monetary monopoly have led to persistent price instability or even hyperinflation. Currency regionalization in some form, by tying the hands of policymakers, may be seen as the only way to restore a reasonable degree of monetary stability. Conversely, the loss of policy flexibility will be felt most acutely in more insulated states that still enjoy a measure of monetary autonomy.

Comparing degrees of regionalization, it is evident that relatively little autonomy is sacrificed in bimonetary relationships or relatively symmetrical alliances like the CMA. Both money supply and the exchange rate can still be changed should circumstances warrant. The impact on policy flexibility, at the margin, will rise significantly with successively higher degrees of regionalization.

(3) The distribution of seigniorage

A final economic issue involves seigniorage—the spending power that accrues from the state's ability to create money. Technically identified as the excess of the nominal value of a currency over its cost of production, seigniorage in the modern era derives from the difference between the interest-free liabilities of the central bank–cash in circulation–and the interest earned on the central bank's counterpart assets. It is, in effect, a pure profit attributable to the central bank's traditional position as a monopolist. In absolute terms seigniorage may not be very large, amounting to just a small fraction of a percent of GDP. But as the equivalent of a supplemental source of finance for government expenditure, it is apt to be considered of substantial value–a privilege not to be abandoned lightly.

Ceteris paribus, this factor too implies a preference for avoiding currency regionalization to the extent possible. With any form of regional currency, a certain amount of seigniorage profit will by definition be diverted elsewhere, going to either a joint institution or a dominant foreign power. Here too relatively little is sacrificed when the degree of regionalization is low. A bimonetary relationship or even a currency board keeps a national currency in circulation, permitting retention of some measure of seigniorage revenue; the same is true of a decentralized monetary union as well. But here too the impact, at the margin, will rise significantly with successively higher degrees of regionalization, unless provisions can be agreed to compensate governments for interest earnings foregone. One precedent for such compensation is provided by the CMA, where the South African government makes annual payments to Lesotho and Namibia according to an agreed formula for seigniorage-sharing, in order to encourage

continued use of the rand. Another is provided by EMU, where net profits of the ECB are distributed proportionately to each of the member central banks.

Political factors

On the political side, two factors stand out. These involve issues of (1) social symbolism and (2) diplomatic influence. Both also can be expected to reinforce a preference for market preservation. In fact, each goes to the heart of the fundamental purpose of the state in world politics: to permit a community to live in peace and to preserve its own social and cultural heritage.

(1) Social symbolism

Money has long played a powerful role in politics as a symbol to help promote a sense of national identity. As Eric Helleiner (1998) has noted, a territorial currency, enjoying sole place as legal tender within the political frontiers of the state, serves to enhance popular patriotism in two ways. First, because it is issued by the government or its central bank, the currency acts as a daily reminder to citizens of their connection to the state and oneness with it. Second, by virtue of its universal use on a daily basis, the currency underscores the fact that everyone is part of the same social entity—a role not unlike that of a single national language, which many governments also actively promote for nationalistic reasons. Both aspects help explain why so many governments are still determined to stick to monetary strategies of market preservation, keeping their currencies on life support no matter how uncompetitive they may have become. Such behavior is not at all irrational insofar as value continues to be attached to allegiance to a distinct political community.

Once in place, a territorial currency can also take on a psychological life of its own in defiance of all economic or political logic. Indeed, it is difficult to overestimate the emotional attachment that most communities come to feel for their monies–even monies that have clearly failed the test of market competition.

The symbolic role of money would obviously be compromised by regionalization in any form, whether via dollarization or currency unification. Ceteris paribus, therefore, this factor too would appear to imply a preference for avoiding currency regionalization to the extent possible. Here too, however, relatively little is sacrificed when the degree of regionalization is low. Even with a currency board or decentralized monetary union a national currency is preserved, thus continuing to provide a basic symbol to help sustain a society's sense of community. It is only at the highest degrees of regionalization–full or near-dollarization or something like EMU or ECCU–that the full impact of this factor will be felt.

(2) Diplomatic influence

Money has also long played a role as an instrument of diplomatic influence. Indeed, as Jonathan Kirshner has written, "Monetary power is a remarkably efficient component of state power.... the most

potent instrument of economic coercion available to states in a position to exercise it" (Kirshner 1995: 29, 31). Money, after all, is at its most basic simply command over real resources. If a nation can be threatened with a denial of access to the means to acquire vital goods and services, it is clearly vulnerable in geopolitical terms.

This factor too implies a preference for avoiding currency regionalization to the extent possible. Monetary sovereignty enables policymakers to avoid dependence on some other source for their purchasing power. In effect, government is insulated from outside influence or constraint in formulating and implementing policy. Conversely, that measure of insulation will be compromised by any form of dollarization or currency unification. Again, the sacrifice is relatively modest when the degree of regionalization is low, since exit costs will be corresponding limited. So long as national currency remains in circulation, with some degree of decentralization of decisionmaking, room exists for a restoration of monetary sovereignty to escape painful diplomatic coercion. But here too the impact, at the margin, will rise significantly with successively higher degrees of regionalization.

Maximum acceptable regionalization

Taking all five factors into account, two implications become clear. First, it is evident why so many states appear resolved to continue producing their own money. A regional currency's saving of transactions costs, on its own, would seem unlikely to outweigh the considerable negatives implied: the losses of macroeconomic flexibility, seigniorage, a social symbol, and political insulation. In effect market preservation–defense of national monetary sovereignty—is a government's default strategy.

Second, it is evident why there is such wide variation in the design of regional currencies. Lower degrees of regionalization help to alleviate of some of the perceived disadvantages of an upward shift of authority. The considerable leeway for variations of design offers more opportunity to accommodate the interests of individual participants.

Is there, then, some degree of regionalization that will encourage more governments to depart from their default strategy? At the risk of oversimplifying a highly difficult decision, the key elements for rational policymakers can be reduced to a two-dimensional diagram comparing the cost of market preservation with the costs of either of an alliance strategy or a followership strategy, as in Figure 1.

Along the horizontal axis of the figure are alternative degrees of regionalization, ranging from the lowest forms at the left (e.g., a bimonetary system or something like the CMA) to the highest at the right (e.g., pure dollarization or something like the EMU). In principle one should distinguish not one but two metrics for regionalization, corresponding to the two separate dimensions involved–institutional provisions for currency issue and decisionmaking. But in practice such an approach would only complicate the analysis with little promise of additional insight. For the heuristic purposes of this essay, it

is sufficient to collapse the two dimensions into a single scale that may be read from left to right as a rough measure of the share of formal authority delegated upward from the individual state.

On the vertical axis are total costs as perceived by a nation's policymakers. Begin with the cost of maintaining a strictly national currency (NC). NC may be represented by a horizontal line, since the estimated cost of a national currency it is invariant to the degree of regionalization. The height of the line, low or high, will vary considerably from country to country reflecting differences in the cost of a default strategy of market preservation. Overall, for most states, it is clear that the height of NC is dramatically rising owing to the growing deterritorialization of money. Indeed, it is this upward movement that is the driving force connecting globalization and currency regionalization. As currency competition grows, the net benefits of monetary sovereignty are correspondingly reduced. Where half a century ago most governments might have faced a line as low as NC1, today they may be confronted with lines as high as NC2 or even NC3.

Curves DL and MA represent the net costs of, respectively, dollarization and monetary alliance. Each is a composite of the five factors just outlined–microeconomic efficiency gains, which decline at the margin with successively higher degrees of regionalization; and the losses of macroeconomic flexibility, seigniorage, social symbolism, and political insulation, all of which are a rising function of the degree of regionalization. Though it is manifestly difficult, a priori, to assign specific weights to each of these five factors, the overall direction of the relationship is clear. The greater the share of formal authority that is delegated upward, the higher is the estimated net cost as compared with a national currency. For any single country, the maximum acceptable degree of currency unification is represented by point A, where the cost of preserving a national currency equals the cost of the least demanding form of a followership strategy. By similar reasoning, the maximum acceptable degree of monetary alliance is point B.

The positions of DL and MA relative to NC will vary considerably from country to country, yielding diverse outcomes. For some, the cost of maintaining a national currency may already have become so elevated that it is now somewhere in the neighborhood of NC3, where there is no point of intersection with either DL or MA. Even the strictest form of monetary alliance or dollarization would thus be an acceptable option. By contrast, for others the position of NC might still be closer to NC1, below both DL and MA, making neither regionalization strategy acceptable in even its most diluted form. For some, DL might lie below MA, making some form of dollarization acceptable (A); for others, MA might lie below DL, resulting in just one point of intersection (B) where monetary alliance is the preferred option; and for yet others, DL and MA could lie close together, making the choice between dollarization and monetary alliance especially difficult.

The key question is: What determines the relative position of the three curves for any given country? Therein lies the core of a positive theory of currency regionalization.

IV. Determining State Preferences

At issue are state preferences. The more we know about what it is that influences policymakers' estimates of prospective benefits and costs, the easier it will be to predict preferences and therefore the delegation of authority that is ultimately likely to emerge in individual countries. Although policymakers can be expected to vary the weights they attach to particular gains or losses, depending on each state's individual circumstances, study of the empirical record does reveal some reasonably consistent patterns of behavior. Three conditions seem especially influential in determining strategic choices: (1) country size; (2) economic linkages; and (3) political linkages. In addition, domestic politics must also be assumed to play a key role.

The empirical record

There are limitations to the empirical record, of course. We do have an abundant population of states committed to one form of currency regionalization or another, as the Appendix shows: some eighteen fully dollarized or near-dollarized economies, seven currency boards, ten bimonetary systems, and 37 countries in a total of four different monetary unions, adding up to nearly a third of all sovereign entities in the world. This would certainly seem a large enough sample to look for meaningful patterns of behavior. But it is also evident that relatively few of these arrangements are the product of calculated decisions by fully independent governments. The majority, in fact, grew out of relationships that originated in colonial times or in United Nations trusteeships. These include most of the fully dollarized and near-dollarized economies listed in Tables A-1 and A-2 as well as three of the four monetary unions listed in Table A-5 (all but EMU). In all such cases it was currency regionalization that was the default position, not some form of exclusive national currency.

Moreover, the empirical record is at best only an *indirect* indicator of preferences, since government choices are rarely fully unconstrained. In most cases it must be assumed that observed relationships are the outcome of strategic interactions and bargaining rather than unilateral decisionmaking.

Nonetheless much can be learned, despite such limitations. Path dependency may be pervasive, but governments were not, after all, *compelled* to preserve inherited arrangements. A decision *not* to abandon a regional currency can tell us as much about preferences as a decision to adopt one. Moreover to this sample we may add other governments that, once given the opportunity, *did* in fact abandon a regional currency. These cases too tell us something about government attitudes. One instructive set of precedents is offered by the host of Third World countries that, once decolonization began after World War II, rapidly chose to abandon colonial-era currency boards for independent national monies. These also include the interesting case of the East African shilling, a joint currency shared by Kenya, Tanzania, and Uganda, which notably failed to outlive decolonization. Other precedents are provided by the successor states of recently failed federations—the former Soviet Union, Czechoslovakia, and Yugoslavia—nearly

all of which chose to establish monies of their own in one form or another as soon as they gained their independence.

Likewise, choices may not be unconstrained, but outcomes may still be interpreted as evidence of revealed preference. The difficulty of inferring preferences from outcomes is a familiar one in social-science methodology but is generally not considered an insuperable barrier to analysis, so long as observations are handled with caution.

So what does the record tell us?

Country size

One thing the record tells us is that country size clearly matters, at least for the world's smallest states. Of all the economies that were fully or near-dollarized until recently, the largest was Panama, with a population of less than three million. Most are truly tiny enclaves or microstates. Small size also dominates among nations that have adopted currency boards or bimonetary systems and is an accurate description of the members of both the ECCU and CFA Franc Zone. One safe bet, *ceteris paribus*, is that the smaller an economy's size–whether measured by population, territory, or GDP–the greater is the probability that it will be prepared to surrender the privilege of producing a money of its own.

The logic is simple. Smaller states are least able to sustain a competitive national currency. The NC curve is already greatly elevated. Conversely, these are the economies that stand to gain most from a reduction of transactions costs. Whether in the form of dollarization or currency unification, some degree of regionalization offers both enhanced network externalities and lower administrative costs. Moreover, since in most cases these countries are also inherently vulnerable in political terms, less importance is likely to be attached to the risks that go with dependence on some other source for their purchasing power. Indeed, advantage may be seen in the protection that could be offered by association with either a powerful patron or a local partnership. Hence either DL or MA, or both, may fall below NC, encouraging governments to abandon strategies of market preservation.

How small must a state be? Until recently, regionalization seemed the preference of only the poorest and most diminutive specks of sovereignty around the globe. The threshold was very high. But as globalization has gradually elevated the NC curve, even bigger nations, as we know, have begun to join in, such as Ecuador and El Salvador. The threshold is clearly shifting downward, increasing the number of potential candidates.

Size, however, by no means explains all. Obviously there are many small states that have elected *not* to go the regionalization route—at least, not yet. These include many former colonies and trust territories, as well as most of the successor states of recently failed federations, which even today remain intent on preserving, to the extent possible, the privileges of a national monetary monopoly. Small size *per se* is by no means a sufficient condition to predict the choice of strategy. Conversely, there are also some larger

nations that have indeed chosen to delegate monetary authority elsewhere, most notably Bulgaria, Estonia, and Lithuania, with their currency boards, and the members of EMU. Small size is not a necessary condition, either.

Economic linkages

Another condition that appears to matter, not surprisingly, is the intensity of economic linkages between nations. Many of the countries that make use of a popular foreign currency have long been closely tied to a market leader economically. This is especially true of the numerous dollarized or bimonetary systems in the Caribbean and Central America, as well as the several dollarized enclaves of Europe and the Pacific. Likewise, we know that nearly half a century of deepening integration preceded the start of EMU. Another safe bet, *ceteris paribus*, is that closer economic bonds will also increase the probability that a government will be prepared to surrender the privilege of producing its own money.

Here again, the logic is simple. Economies that are already closely linked would, because of the efficiency gains involved, appear to be natural candidates for a regional money of some kind. Linkages might operate through trade, as is evident in the European Union, or through financial relationships developed from formal or informal currency use. The higher the level of interaction, the more we would expect to see both greater savings of transactions costs and closer convergence of economic activity. If relations are mostly concentrated on a market leader, lowering the DL curve, some form of dollarization might prevail. This would especially be the case in countries where currency substitution has now become widespread, as in Latin America or East-Central Europe. Conversely, if links are closer within a group of neighboring states, say as a result of a common integration project like the EU, MA would be lowered, making currency unification more likely.

It is clear, however, that this condition too, on its own, is neither necessary nor sufficient for predictive purposes. Both Mexico and Canada are more closely tied to the United States than most other Hemispheric economies, yet to date each remains firmly committed to defending its traditional monetary sovereignty. Conversely, both the ECCU and CFA Franc Zone continue to thrive despite an absence of much reciprocal trade, while successor states of recently failed federations have mostly preferred to produce their own national monies in spite of the previously close integration of their economies. Economic linkages alone are rarely decisive. The reason is that they bear on only two of the five factors of interest to rational policymakers: the tradeoff between microeconomic efficiency and macroeconomic flexibility. Governments are undoubtedly sensitive to such considerations, but not exclusively.

Political linkages

A third condition that appears to matter is the intensity of political linkages between nations, whether formal or informal. Ties may take the form of a patron-client relationship, often descended from a

previous colonial or trusteeship association; or they may be embodied in a network of cooperative diplomatic arrangements, possibly institutionalized in a formal alliance. Whatever the form, the influence of such ties is unmistakable—in currency groupings that have failed as well as those that have survived.

On the negative side, I have already mentioned the several monetary unions that broke up in recent decades: in East Africa following decolonization, as well as in the former Soviet bloc following the end of the Cold War. We also know that many former dependencies of the old imperial powers, once granted independence, quickly rejected dollarization or colonial-era currency boards in favor of a money of their own. Plainly, in all these cases, governments were motivated by a desire to assert their new-found rights and prerogatives as sovereign states; in other words, to *reduce* political linkages. Conversely, in the monetary unions that survived decolonization (ECCU and CFA Franc Zone), as well as in EMU and CMA, inter-state ties have always been stronger; and the same is true of most of today's dollarized entities as well, which have long been accustomed to a hierarchical relationship with the source of their money. These are cases where governments are *least* interested in a reduction of political linkages.

Thus a third safe bet, *ceteris paribus*, is that closer political bonds too will increase the probability that a government will be prepared to surrender the privilege of a national money. The logic is that political linkages reduce two of the key costs associated with regionalization–the loss of a social symbol and the increase of vulnerability to outside influence. For states with already close ties to one of the market leaders, this means a lower DL curve, making some form of followership relatively more attractive. Candidates might include many of the countries of Latin America, ever in the shadow of the United States; or numerous economies of the former Soviet bloc, Mediterranean basin, or sub-Sahara Africa, with their close links to Europe. Likewise, for states already engaged in a common integration project, such as Mercosur in South America or the Association of Southeast Asian Nations (ASEAN), political linkages lower the MA curve, making a strategy of monetary alliance seem an increasingly natural choice.

Here again, however, as with size or economic linkages, the condition is rarely decisive, since it too bears directly on only a subset of the factors of interest to policymakers. Djibouti, for example, has a currency board that has always been based on the dollar despite the absence of any direct relationship with the United States. Israel, conversely, has expressly rejected dollarization in spite of its close ties to Washington (Cohen 1998: 38). Political linkages too, on their own, are neither necessary nor sufficient for predictive purposes.

Domestic politics

Finally, what of domestic politics? The material interests of specific constituencies are systematically influenced by what a government decides to do with its money. State strategies thus are bound to be

sensitive to the interplay among domestic political forces as well as the institutional structures through which interest-group preferences are mediated.

Unfortunately, no studies yet exist that directly probe the role of domestic interest groups in currency regionalization. Strong hints, however, are provided by a related literature focusing on the wave of financial liberalization that swept emerging-market economies in the 1980s and 1990s.[16] Though details differ from country to country, it is clear that critical constituencies benefitted measurably from the integration of local financial markets into the growing structure of global finance, including in particular big tradable-goods producers, banks and other financial-services firms, and large private asset-holders–those that Jeffrey Frieden (1991) refers to as "integrationist" interests. Exporters and importers, as well as domestic banks, gained improved access to loanable funds and lower borrowing costs; the owners and managers of financial wealth were freed to seek out more profitable investments or to develop new strategies for portfolio diversification. Most of these integrationist interests, research reveals, were active in lobbying policymakers to reduce or eliminate past restraints on capital mobility. Extrapolation from this literature suggests that many of these same powerful constituencies are likely to favor currency regionalization as well, since a regional money offers the same advantage of financial openness. These are the actors who will benefit most from the anticipated reduction of transactions costs; for them, the DL and MA curves appear lower than they do to others. And they are not the type of actors who are apt to be shy about promoting their own interests.

Much rests, therefore, on the degree of political influence exercised by such groups as compared with other domestic constituencies, such as producers of non-tradables and workers, who might oppose abandoning a national currency–"anti-integrationist" forces who feel they would benefit more from preservation of some measure of monetary autonomy. Integrationists' degree of influence, in turn, will be a function of domestic institutions and political structures. The issue is the extent to which government decisionmaking is insulated from the pressures of such groups. How much attention is paid to their specific preferences and demands? This is less a matter of formal regime type than of practical access to the corridors of power. The greater the relative influence of integrationist interests, the more probable it is that policymakers will be prepared to delegate monetary authority elsewhere. This seems another safe bet, again *ceteris paribus*.

V. Illustrations

Generalization is of course difficult when no single variable can be considered either necessary or sufficient to forecast behavior. A parsimonious predictive model is simply not possible. Nonetheless, much insight can be gained by looking at all relevant conditions together in the context of specific cases. Two brief paired comparisons serve to illustrate the value of such an analytical approach.

Argentina vs. Ecuador

Consider first Argentina and Ecuador, a pair of states that, as indicated, have chosen strategies of market followership–but to significantly different degrees and with very different outcomes. Argentina moved first, in 1991, when it adopted a currency board tied firmly to the dollar. Subsequently, following former President Menem's expression of interest, the idea of full dollarization was considered but ultimately rejected by the government of Menem's successor, Fernando de la Rúa, even before the currency board's eventual collapse. Ecuador, by contrast, decided in 2000 to adopt the dollar formally, leaving only token amounts of its own previous currency in circulation. What explains the difference in the degree of regionalization attempted by the two countries?

In two key respects, the pair are quite similar. Each state has strong economic linkages with the United States, particularly through currency substitution. At end-1999, the dollar accounted for some 56 percent of total bank deposits in both Argentina and Ecuador.[17] And each is close to the U.S. politically, long accustomed to Washington's leadership role in the Western Hemisphere. In terms of Figure 1, both conditions suggest a lowered DL, helping to explain why each country might have been predisposed to dollarization in some form.

But in two other respects, the pair are quite dissimilar. One obvious difference is size. Whereas Argentina, Latin America's third largest economy, is a middle-income emerging market with a fair amount of industry, Ecuador is much smaller in territory and population and far less developed economically. The other difference has to do with domestic politics, which since the late 1980s have been rather more open and pluralistic in Argentina than in Ecuador. In Ecuador, particularly in the crisis circumstances prevailing in early 2000 when the dollarization decision was taken, few opportunities existed for opposition to mobilize against the new currency strategy. Integrationist forces were able to dominate decisionmaking. In Argentina, by contrast, anti-integrationist forces are much better organized and represented politically, creating a more level playing field. The first contrast suggests a more elevated NC curve for Ecuador, raising the maximum acceptable degree of regionalization as compared with Argentina. The second suggests a higher DL curve for Argentina, lowering the maximum acceptable degree of regionalization as compared with Ecuador.

Hence we should not be surprised by the differing outcomes in the two cases, following President Menem's remarks in 1999. At the very time that Ecuador embraced full dollarization, unilaterally delegating all its monetary authority to Washington, Argentina was holding out for a better deal, preferably in the form of a bilateral treaty of monetary association with Washington. If the nation was to surrender what remained of its historical monetary sovereignty, proud Argentinians wanted to be seen as partners of the United States, not a mere dependency. When Washington politely declined, Buenos Aires

decided to remain instead with its less demanding currency board, until even that degree of commitment proved impossible to sustain.

Eastern Caribbean vs. East Africa

A second instructive comparison is between the Eastern Caribbean and East Africa, two regions that have had strikingly different experiences with strategies of market alliance. Each region inherited a common currency from its former colonial master, Great Britain, upon receiving independence in the 1960s–respectively, the West Indian dollar (now the Eastern Caribbean dollar) and the East African shilling. But whereas the Eastern Caribbean Currency Union, as indicated, has functioned smoothly for decades, its East African equivalent, the East African Community (EAC), fell apart almost as soon as the British left the scene. First the East African shilling was replaced by separate national currencies in a looser exchange-rate union; and then in the mid-1970s even the exchange-rate union was abandoned as all three constituent members extended exchange restrictions to each other's money. The contrast between outcomes in the two regions could not be greater. Again, we may ask what explains the difference.

In fact, similarities between the two cases are considerable. The economies in both regions are among the smallest and poorest in the world. For all of them, the cost of preserving a strictly national currency is undoubtedly high (a greatly elevated NC). There is also relatively little difference between the regions in the intensity of economic linkages within each group or, so far as one can judge, in the political influence of integrationist interests. On all these counts we would not expect much variance in the degree of regionalization elected by the two groups.

But the two cases do differ significantly along the political dimension, where post-colonial ties proved to be far more durable in the Eastern Caribbean than in East Africa. In the EAC, as I have noted elsewhere (Cohen 2000a), decolonization left little feeling of solidarity among the three constituent members, despite their legacy of common services and institutions. Much more influential was a pervasive sensitivity to any threat of encroachment on newly won sovereignty, which raised the perceived cost of currency unification (elevating MA). Once independent, each was more concerned with building national identity than with preserving regional unity. In the Eastern Caribbean, by contrast, identities have always been defined more in regional than national terms, institutionalized in a dense web of related political and economic agreements. From the start the MA curve was seen as much lower, removing any incentive to alter strategy.

VI. Conclusions

What, then, can we say about the future of monetary governance in a world of regional currencies? The working assumption, to repeat, is that economic globalization is driving states to reconsider their

historical attachment to strictly national money. The question, once again, is: What delegation of authority, then, is most likely to emerge?

While firm predictions are difficult, four broad generalizations seem reasonable. First, while the deterritorialization of currency is clearly imposing growing constraints on traditional forms of monetary governance, it by no means dictates the choices that governments will eventually make. Many countries will consider some form of either dollarization or currency unification–but by no means all.

Second, we should expect to see relatively few *pure* cases of dollarization or currency unification. Few countries are apt to go the way of the Marshall Islands or Monaco, which willingly forego any claim to a national money of their own. Likewise, even in the small handful of common integration projects now under way in the developing world–most notably, Mercosur and ASEAN–partnerships remain far from the degree of closeness that would be required to establish something as far-reaching as EMU or the ECCU. Regionalization may for many be a logical corollary of currency competition, but it does not follow that sovereign states will spontaneously delegate *all* their monetary authority upward, either to a market leader or to a joint central bank. Most governments are likely to prefer somewhat more mixed models, involving a more limited element of regionalization.

Third, what those mixed models might look in practice like will vary considerably, depending very much on *bargaining context*. Practical experience demonstrates that many different degrees of regionalization are possible to accommodate the economic and political interests of participating states. No uniform outcome should be expected for either dollarization or currency unification.

Finally, bargaining context in turn will depend greatly on the key conditions of country size, economic linkages, political linkages, and domestic politics. Higher degrees of regionalization are more likely where states are small, economic and political linkages are strong, and domestic politics is heavily influenced by tradable-goods producers and financial interests. Conversely, lower degrees of regionalization may be expected insofar as countries are larger, economic and political linkages with others are weaker, and the domestic political setting is more pluralistic. In the largest states, with the weakest economic and political linkages and the most pluralistic politics, defense of national monetary sovereignty will remain the default strategy.

In short, there seems little doubt that a new geography of regional currencies is emerging as a byproduct of globalization. But as it evolves, the world's monetary map will in all probability come to look more like a messy, highly variegated mosaic than any simple structure of giant blocs and joint currencies. The essential elements of a positive theory of currency regionalization can be identified. What cannot be foretold is how these elements will work out in specific bargaining contexts. Standard microeconomic theory teaches that when monopoly yields to oligopoly, outcomes become indeterminate and multiple equilibria are possible. So too, it would appear, is this true in matters of money.

Tables

Table A-1: Fully Dollarized Countries*

Country	Currency Used	Since
Andorra	euro	2002
Cyprus, Northern**	Turkish lira	1975
East Timor	U.S. dollar	2000
Kosovo***	euro	2002
Liechtenstein	Swiss franc	1921
Marshall Islands	U.S. dollar	1944
Micronesia	U.S. dollar	1944
Monaco	euro	2002
Montenegro***	Deutschmark	2000
Nauru	Australian dollar	1914
Palau	U.S. dollar	1944
San Marino	euro	2002
Vatican City	euro	2002

TOTAL = 13

Sources: International Monetary Fund, Europa World Year Book, various government sources.

* Independent states that extend exclusive legal-tender rights to a single foreign currency.

** De facto independent; under the protection of Turkey.

*** Semi-independent; formally still part of Yugoslavia.

Table A-2: Near-Dollarized Countries*

Country	Currency Used	Since	Local Currency
Ecuador	U.S. dollar	2000	sucre
El Salvador	U.S. dollar	2001	colon
Kiribati	Australian dollar	1943	own coins
Panama	U.S. dollar	1904	balboa
Tuvalu	Australian dollar	1892	Tuvaluan dollar

TOTAL = 5

* Independent states that rely primarily on one or more foreign currencies but also issue a token local currency.

Table A-3: Currency Boards*

Country	Anchor Currency	Since	Local Currency
Bosnia and Herzegovina	euro (formerly Deutschmark)	1998	Bosnian marka
Brunei Darussalam	Singapore dollar	1967	Brunei dollar
Bulgaria	euro (formerly Deutschmark)	1997	lev
Djibouti	U.S. dollar	1949	Djibouti franc
Estonia	euro (formerly Deutschmark)	1992	kroon
Hong Kong**	U.S. dollar	1983	Hong Kong dollar
Lithuania	euro (formerly U.S. dollar)	1994	litas

TOTAL = 7

* Countries with a formally irrevocable exchange-rate link to a foreign currency, both of which circulate domestically as legal tender and are fully interchangeable.

** Special Administrative Region of China.

Table A-4: Bimonetary Countries*

Country	Currencies Used	Since
Bahamas	Bahamanian dollar, U.S. dollar	1966
Belarus	Belarusian rubel, Russian ruble	1991
Bhutan	Bhutan ngultrum, Indian rupee	1974
Cambodia	Cambodian riel, U.S. dollar	1980
Guatemala	Guatemala quetzal, use of other currencies permitted	2001
Haiti	Haitian gourde, U.S. dollar	n.a.
Lao P.D.R.	Lao kip, Thai baht, U.S. dollar	n.a.
Liberia**	Liberian dollar, U.S. dollar	1982
Palestinian territories***	Israeli shekel, Jordanian dinar	1967
Tajikistan	Tajik ruble, use of other currencies permitted	1994

TOTAL = 10

* Countries with one or more foreign currencies in circulation that are recognized legally but are subsidiary to the local currency as legal tender.

** Near-dollarized, with only token amounts of Liberian dollars in circulation, from 1944 until 1982.

*** Occupied by Israel since 1967. The Israeli shekel is the exclusive legal tender in the Gaza Strip; both the shekel and Jordanian dinar are recognized in the West Bank.

Table A-5: Monetary Unions

Union	Member Countries	Institutional Arrangements	Since
Eastern Caribbean	Antigua and Barbuda, Dominica, Grenada, St. Kitts-Nevis, St. Lucia, St. Vincent and the Grenadines	single currency (Eastern Caribbean dollar), Currency Union, single central bank	1965
Economic and Monetary Union (European Union)	Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain	single currency (euro), single central bank	1999
CFA Franc Zone	Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Comoros, Congo-Brazzaville, Côte d'Ivoire, Equatorial Guinea, Gabon, Guinea-Bissau, Mali, Niger, Senegal, Togo	two regional currencies (both named CFA franc) and one national currency (Comorian franc); two regional central banks and one national central bank (Comoros)	1962–64
Common Monetary Area	Lesotho, Namibia, South Africa, Swaziland	three currencies pegged to S. African rand, four central banks (South African rand is legal tender in Lesotho and Namibia)	1986

TOTAL = 36

Notes

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[2] The adjectives "full" or "formal" are frequently added to distinguish this policy choice from the market-driven process of currency substitution, which in the past was also often popularly labeled dollarization (now unofficial or informal dollarization). Dollarization, of course, does not necessarily require the dollar. Some other currency, such as the euro or yen, may also be chosen to replace a country's currency.

[3] See e.g., Alesina and Barro 2001; Dornbusch 2001; Fischer 2001; Rogoff 2001.

[4] See e.g., Alesina and Barro 2002.

[5] The distinction between pooling and surrender of sovereignty, which is generic to the question of how to organize political authority, is of course a familiar one in political science and is used in a variety of contexts–in analyzing differences between confederal states and empires, for instance.

[6] The discussion in this section, which is necessarily condensed, is based on arguments presented at greater length in Cohen 1998.

[7] Baliño *et al.* 1999. Broad money supply (M2) is defined to include all coins and notes in circulation, demand deposits (checking accounts), and all other "reservable" deposits (time deposits).

[8] Beddoes 1999: 8. See also Eichengreen 1994; Hausmann 1999a, 1999b; Mundell 2000.

[9] These include prospects in Asia (Eichengreen and Bayoumi 1999), Africa (Honohan and Lane 2001), Latin America (Levy Yeyati and Sturzenegger 2000), Australia-New Zealand (Grimes and Holmes 2000), and even between the United States and Canada (Buiter 1999).

[10] I include here only politically sovereign entities, excluding all monetary arrangements with scattered dependent territories left over from the era of colonialism. In most cases, dependent territories make exclusive use of the

currency of the "mother" country. These include the external dependencies of Australia, Denmark, France, New Zealand, Norway, the United Kingdom, and the United States. Exceptions include *inter alia* Bermuda, the British Virgin Islands, and the Turks and Caicos Islands, all of which use the U.S. dollar though they are territories of the United Kingdom.

[11] For a discussion of factors leading up to the collapse of Argentina's currency board, see Pastor and Wise 2001.

[12] Von Furstenberg 2000 characterizes these as, respectively, "uncooperative unilateral monetary unions" and a "multilateral sharing model of monetary union."

[13] Not surprisingly, these three factors dominate discussions by economists. See e.g. Alesina and Barro 2002.

[14] Rose 2000. Though frequently challenged, Rose's results have been consistently confirmed by other studies, as Rose 2002 demonstrates in a comprehensive analysis.

[15] Readers will recognize a more-than-passing familiarity of this tradeoff to the central tension identified by Charles Tiebout and others interested in the optimal level of governance in world affairs–a tension between scale economies and externalities, on the one hand, which argue for larger units and greater centralization of authority; and on the other hand heterogeneity of preferences, which argues for the reverse. Scale economies and externalities are at the heart of the efficiency gains offered by currency regionalization, while macroeconomic flexibility is valued precisely because of the persistence of national differences. But that is not the only tradeoff implicated in currency regionalization, as the discussion will make clear, and may not even be the most salient. Functionalist Tiebout-type models are too narrow to capture all the elements of the policy choices involved.

[16] Notable examples include Pauly 1988; Maxfield 1990; Haggard *et al*. 1993; Loriaux *et al*. 1997; Auerbach 2001.

[17] Confidential source. In addition, substantial amounts of U.S. bank notes can be assumed to be in circulation in both countries.

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