BENJAMIN J. COHEN

THE FUTURE OF MONEY

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Benjamin J. Cohen

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For Jane, WHO IS THE PRESENT AND
For Christel, WHO IS THE FUTURE

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Acknowledgments

THIS BOOK may be regarded as the third volume of a trilogy that began with *Organizing the World's Money*, published in 1977, and continued with *The Geography of Money* (1998). With *Organizing the World's Money*, I started a systematic exploration of the political economy of global monetary relations, past and present, that now culminates with this attempt to peer as clearly as possible into the mists of the future. In *Organizing the World's Money*, the analysis was almost exclusively state-centric, reflecting the reality of a time when international financial markets had barely begun their postwar resurrection (Cohen 1996). In *The Geography of Money*, by contrast, markets took center stage as major determinants of the configuration of currency space. Finally, here in *The Future of Money*, I focus once again on state behavior but in a context that is heavily influenced by the logic of market competition.

Despite its close connections to its intellectual antecedents, however, this book is by no means merely a new spin on old themes. It is, rather, an entirely new piece of work addressing critical questions left unanswered by its immediate predecessor. *The Future of Money* builds on *The Geography of Money* but does not repeat it. Where *The Geography of Money* emphasized the past and present—the origins and implications of today's market-driven process of currency competition—*The Future of Money*, as its title implies, is more forward-looking, aiming to help understand what can be expected to happen tomorrow and the day after. The inquiry is fresh and, as I hope to demonstrate, can make significant claims to originality. Both the perspective and the analytical model are novel.

Much of the volume draws on papers written since *The Geography of Money* was published. The only exception is chapter 1, which, but for the final few pages, is essentially a summary of the key arguments of the earlier book. The remaining chapters all build on a diversity of new work. Much of chapter 2 is based on Cohen 2003b, and much of chapter 3 on Cohen 2000b and 2002b. Chapter 4 draws in part from Cohen 2000c, 2000d, 2000f, 2001c, 2002a, and 2003a. Chapters 5 and 6 make much use of Cohen 2000a, 2000e, 2001a, and 2003c. Chapter 7 relies greatly on Cohen 1999 and 2001b. Versions of all of these papers were initially presented at conferences or professional meetings in the United States and elsewhere, and all benefited from the insightful comments and suggestions that I received from many colleagues around the world. Too numerous to identify individually by name, they are all thanked collectively in one comprehensive and sincere expression of gratitude.

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Finally, this book is dedicated to the two most important females in my life. First is my wife Jane Sherron De Hart, a talented historian and—deservedly—the only award-winning author in our family. And second is Christel Vidal Villela, our beloved goddaughter, who spent a good part of her early years doing her best to divert me from this project to the far more vital task of helping her with her jigsaw puzzles and coloring books. Without these two delights, my life would be impoverished.

Introduction

WHAT IS THE FUTURE of money in an increasingly globalized world economy? The question is critical. Though seemingly technical in nature, the management of money in fact is anything but neutral in its implications for the distribution of wealth and power across the globe. Whoever controls money gains access to real resources—goods and services of all kinds—which in turn are key to attaining economic and political advantage. For the citizens of any country, it matters greatly whether currency will be governed by recognized state authorities or by others, by friend or by foe, at home or abroad. Will the privilege that money represents be handled responsibly or exploitatively? Will currency be a source of prosperity or conflict? The future of money affects us all. It is our future.

For many monetary specialists, the answer to the question is clear. The future will see a dramatic reduction in the number of currencies in circulation, greatly simplifying the management of money around the world. I call this the Contraction Contention. But the Contraction Contention is utterly wrong. In reality, the global population of currencies is set to expand greatly, not contract, making monetary governance more difficult rather than less. We will all have to learn how to cope with an increasingly complex currency environment.

At issue is a breakdown of the neat territorial monopolies that national governments have historically claimed in the management of money—a process that in an earlier volume, *The Geography of Money* (1998), I described as the *deterritorialization* of money. Along with increasing globalization of the world economy has come direct competition among currencies across political borders. State authorities are no longer able to exercise supreme control over the circulation and use of money within their own frontiers; and this in turn is leading to fundamental changes in the way money is governed. Deterritorialization may not account for every recent development in international monetary relations, but it is central to determining what governments are able to do in response. The stakes could not be higher. As I wrote in *The Geography of Money*, accelerating currency competition transforms the role of the state in monetary governance, threatening a major crisis of legitimacy in this vital realm of political economy.

The aim of the present book is to take up where *The Geography of Money* left off. The earlier book highlighted the nature of today's challenge to monetary governance and outlined the principal policy responses available to governments. Left unanswered were the critical questions of

what factors might determine state choices and how those choices in turn, interacting with market forces, will shape the monetary environment of the future. In *The Geography of Money*, the focus was on the emergence of new structures of power in global monetary relations. In this book I show where those new structures of power are leading us—toward a world far more complex, and far more difficult to govern, than commonly predicted. The novelty of the book lies both in the forward-looking perspective of the inquiry and in the innovative approach to analysis.

The book begins, in chapter 1, with a brief summary of the main conclusions of its predecessor. The geography of money refers to the spatial organization of currency relations. Monetary geography is rapidly changing as a direct result of the spread of competition between currencies. The population of the monetary universe is becoming ever more stratified, assuming the appearance of a vast Currency Pyramid: narrow at the top, where the strongest monies dominate; and increasingly broad below, reflecting varying degrees of competitive inferiority. As deterritorialization accelerates, power is being radically redistributed. Where once existed *monopoly*, 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 share, posing difficult choices for policymakers. *The Geography of Money* ended with a question: Can public policy cope? *The Future of Money* offers an answer.

One possibility, of course, is that under the pressure of accelerating competition, many countries will simply quit the contest altogether. That is the Contraction Contention, now rapidly gaining popularity among specialists. The logic of the Contraction Contention stems from the power of economies of scale in monetary use. The reasoning is clear. From the point of view of market actors, whose concern is to minimize transactions costs, the fewer the currencies the better. Economies of scale will be maximized.

The Contraction Contention, however, is shortsighted. It reckons without the supply side of the market, where preferences can be expected to run very much the other way—toward preservation and even a proliferation of currencies around the globe. On the supply side, two sets of actors must be considered: states, of course, traditionally the core producers of money; but also the private sector, which is equally capable of creating viable, competitive currencies. The role of government is taken up in chapters 2 through 6, focusing on the alternative choices still available to state authorities in today's increasingly deterritorialized monetary geography. Analysis suggests that far fewer national currencies are apt to disappear than is commonly predicted. The role of the private sector, in turn, is taken up in chapter 7, emphasizing new opportunities and incentives

for monetary production by a diverse range of nonstate actors. For a variety of reasons, the chapter concludes, the number of privately issued currencies in the world can be expected to multiply dramatically, adding even more to the complexity of money's future. What all this means for the future of monetary governance, finally, is explored in chapter 8.

The analytical heart of the book is outlined in chapter 2, where I lay out an innovative model for understanding the strategic preferences of states, as each government is driven to develop a winning strategy in the oligopolistic struggle among monies. In principle, four strategies might be possible. These are:

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

In practice, even that list exaggerates the range of available choice, since at least one of the four possible strategies—market leadership—is generally beyond the capacities of most governments. Only a privileged few states with the most widely circulated currencies, such as the U.S. dollar, Europe's new euro (succeeding Germany's deutsche mark), and the Japanese yen, can realistically aspire to a unilateralist leadership strategy. For the vast majority of states with less competitive monies, policy options really are limited just to the remaining three—a tricky choice indeed. The analytical model developed in chapter 2 concentrates on the reciprocal relationship among these three strategies of preservation, followership, or alliance.

The essence of the choice can be easily stated. Should policymakers seek to defend their traditional monetary sovereignty, or should they delegate some or all of their formal authority elsewhere, either to a dominant foreign power or to the joint institutions of a currency partnership? Delegation of authority elsewhere necessarily implies a degree of regional consolidation in currency relations, either vertical regionalization (followership) or horizontal regionalization (alliance). Scholars are only beginning to address the question of what such a new regional geography of money might look like. My model offers two broad advances over the existing literature.

First, while it is true that numerous discussions already exist analyzing the advantages or disadvantages of one or another of the available choices, most scholarly work, almost without exception, is confined to

evaluating the advantages and disadvantages of options *individually* or in comparison to just one other alternative. Few consider all three possible strategies in direct relation to one another. One claim to originality in the approach developed here lies in my emphasis on the *three-dimensional* nature of the decisions involved. The choice is inherently *tripartite*. The key to understanding state preferences is to be found in the relationship among all three elements of the choice, not in the pros and cons of any one option alone or of any single pair of options.

The second claim to originality lies in my emphasis on *degrees* of regionalization as a central determinant of state preferences. Scholars, of course, have long acknowledged that regional currencies may come in many shapes and sizes. But again, almost without exception, formal analysis tends parsimoniously to reduce state choice to starkly contrasting polar alternatives in order to highlight crucial differences. In fact, there is no substitute for more fine-grained exploration, since policymakers can be expected to vary greatly in the importance they attach to particular gains or losses depending on each country's unique circumstances.

Closer analysis of state preferences begins in chapter 3, with a look first at the prospects for the market leaders. At the peak of today's Currency Pyramid we find the Big Three—the dollar, euro, and yen. The logic of competition suggests that among currencies in circulation today, there seems no candidate with even the remotest chance in the foreseeable future of challenging the Big Three's top rank. Among the Big Three, however, there seems a very real chance of significant shifts in relative standing. The euro, in particular, is poised to increase market share at the expense of the dollar, though in key respects the competitive advantages of America's greenback will persist. The yen, by contrast, appears to have peaked as an international currency and may well be entering a period of long, painful decline. Much will depend, however, on how the governing authorities of the Big Three respond to prospective market developments. That is a matter of state preferences.

There are reasons to assume that a unilateralist strategy to maintain or enhance market position will be the preferred choice of each of the market leaders. Rational policymakers are hardly likely to turn their back on the considerable benefits to be derived from broader use of their currency. On the contrary, the Big Three can be expected to do all they can to sustain the underlying competitiveness of their currencies, with the objective of defending or promoting widespread use by *market* actors. Rivalry for market share, what I call *informal* leadership, is natural in an oligopoly. It is less evident, however, that governments will be motivated to go a step further, to seek to influence the behavior of other *state* actors, lending support to national strategies of followership. That would imply sponsoring formation of organized currency blocs, what I call *formal* leadership.

For its part the United States, at the top of the Currency Pyramid, will take no such initiative unless seriously challenged for formal leadership by either Europe or Japan. For their part, neither the Europeans nor the Japanese appear to have any appetite for overt currency conflict with Washington. None of the Big Three, therefore, is likely to offer direct inducements of any significance to alter the incentive structures facing other governments (with the possible exception of Japan in East Asia). In thinking about the tricky choice they face among the options of monetary preservation, followership, or alliance, most other states will find themselves more or less on their own.

The key issues involved in that difficult tripartite choice are explored in chapters 4 through 6, beginning with the option of preservation in chapter 4. Monetary sovereignty can be defended by tactics of either persuasion and 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. Coercion means applying the formal regulatory powers of the state to avert any significant shift by users to a more popular foreign money. Both approaches may be regarded as legitimate uses of political authority for the purpose of monetary governance; and both may be effective, at least for a time, in preserving market share. Neither, however, is without cost. As cross-border competition continues to accelerate, the cost of a preservation strategy is being pushed ever upwards, possibly making the alternative options of either followership or alliance relatively more appealing—or, at least, less unappealing. By no means does this mean that governments thus will *necessarily* delegate some or all of their monetary authority elsewhere. But it does mean that the decision cannot be evaded. Policymakers must consciously address the merits of regionalization in some form, as compared with the rising cost of a strictly national currency.

The option of vertical integration is addressed in chapter 5. Followership may take many forms—from the least demanding version, simple bimonetarism, where a popular foreign currency is granted legal-tender status to circulate alongside national money; to some form of currency board, where domestic money supply is firmly linked to the availability of a designated foreign currency; to the highest degree of vertical regionalization, what is typically called full "dollarization," where a strong foreign currency (such as the U.S. dollar) wholly replaces the existing national money. Because the cost of a followership strategy rises with the degree of subordination involved, relatively few states—apart from the special case of nations aspiring to membership in the European Union—are apt to be comfortable with the idea of full replacement of national money. Some governments in Latin America or elsewhere may go this route, adopting the greenback, but probably only when the cost of a strat-

egy of market preservation becomes simply too high to bear—say, in the midst of a financial or political crisis. Dollarization will be pursued more as a refuge than a privilege. For other governments, the more appealing option will be one of compromise between preservation and followership—a more diluted form of vertical regionalization that, hopefully, might ease the disadvantages of holding onto an uncompetitive national currency while retaining at least a few of the advantages of monetary sovereignty. In practical terms, this means some version of a currency board or bimonetarism. The monetary world will include a growing number of followers, but most will resist surrendering their formal authority unconditionally to a market leader.

The option of horizontal integration is taken up in chapter 6. Alliances also may take many forms, depending on the degree of formal authority to be delegated to joint institutions. As compared with any form of dollarization, an alliance strategy offers the critical advantage that monetary sovereignty is shared rather than subordinated or surrendered. But sharing necessarily implies some measure of collective action in the production and management of money, which is difficult to organize. An alliance requires allies—other states with similar preferences and a disposition to act cooperatively. In practice, willing partners are not all that plentiful. Analysis of past experience suggests that the necessary degree of cooperation requires at least one of two conditions—either a locally dominant state committed to using its influence to keep a monetary alliance functioning effectively on terms agreeable to all; or else a genuine sense of solidarity among the nations involved backed by a well-developed set of institutional linkages. In few parts of the globe today can the requisite conditions be found. Prospects for full new monetary unions, therefore, do not appear bright, despite active discussion in a variety of regions. Much more likely are less demanding forms of alliance that allow for some compromise between pooling and preserving monetary sovereignty. The monetary world will also include a growing number of joint ventures but few, if any, new joint currencies.

Turning from states to nonstate actors, chapter 7 takes up the role of the private sector, which is rapidly emerging as an alternative source of money, further complicating the strategic calculations of governments. Beyond the landscape defined by state preferences lie new frontiers, populated by an increasing number of privately issued currencies—new species of money capable of competing directly with existing national currencies. Controversially, the chapter argues that the growing proliferation of private monies represents a direct threat to the traditional authority of states. Within national borders, governmental control is being eroded by the spread of local currency systems, each determined to devolve a share of the power of monetary governance back down to the level of the commu-

nity or subnational region. Across national borders, state-sanctioned monies face the prospect of multiple versions of electronic currency, each capable of diffusing authority outward to the emerging universe of cyberspace. Most governments have already lost their traditional territorial monopolies in the geography of money owing to the widening of choice on the demand side of the market. Now, contrary to the view of many respected economists, I contend that they risk losing dominance of the supply side as well—a development that will intensify even more the contest for market share.

Chapter 8, finally, asks what can be done about this increasingly complex currency environment. How will the new geography of money be governed? *Can* it be governed? With the global population of currencies increasing rather than decreasing, the chances of instability or monetary conflict will grow ever greater. The challenge is to minimize the risks of currency competition while preserving its acknowledged benefits. At the domestic level, I argue, this will require a resurrection of fiscal policy as a core tool of macroeconomic management, to offset the steady erosion that is occurring in the effectiveness of monetary policy. At the international level it will require a combination of cooperation among the market leaders and more active mediation by the International Monetary Fund, to provide a measure of coordination to the decentralized decisions of individual governments. None of these reforms, regrettably, can offer a foolproof antidote to prospective difficulties. But each, in its way, would make it easier for us all to live with the growing decentralization of power in monetary affairs. The future of money will be perilous, but it need not be chaotic.

Abbreviations

AMF	Asian Monetary Fund (proposed)
AMU	Asian Monetary Union (proposed)
ANZAC dollar	Australia-New Zealand dollar (proposed)
ASEAN	Association of Southeast Asian Nations
ASEAN + 3	Members of ASEAN plus China, Japan, and South Korea
BCEAO	Banque Central des Etats de l'Afrique de l'Ouest
BIS	Bank for International Settlements
BLEU	Belgium-Luxembourg Economic Union
CAEMC	Central African Economic and Monetary Community
CARICOM	Caribbean Community and Common Market
CER	Closer Economic Relations Agreement
CF	Comorian franc
CFA	*Communauté Financière Africaine* (African Financial Community)
CMA	Common Monetary Area
CMU	Caribbean Monetary Union (proposed)
DL	dollarization
DM	deutsche mark
EC	European Community
ECB	European Central Bank
ECCB	Eastern Caribbean Central Bank
ECCU	Eastern Caribbean Currency Union
ECOWAS	Economic Community of West African States
e-money	electronic money
EMS	European Monetary System
EMU	Economic and Monetary Union
ERM 1	Exchange-Rate Mechanism (part of EMS)
ERM 2	Exchange-Rate Mechanism (part of EMU)
EU	European Union
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
IMF	International Monetary Fund
IMFC	International Monetary and Financial Committee (formerly, Interim Committee)
LETS	Local-Exchange Trading System
LMU	Latin Monetary Union
LOLR	lender of last resort
MA	monetary alliance

Mercosur	*Mercado Común del Sur* (Common Market of the South)
NAFTA	North American Free Trade Agreement
NAMU	North American Monetary Union (proposed)
NC	national currency
OCA	optimum currency area
SMU	Scandinavian Monetary Union
Two S's	Subordination or Sharing (of monetary sovereignty)
URR	unremunerated reserve requirement
U.S.	United States
WAEMU	West African Economic and Monetary Union
Zac	Australia-New Zealand dollar (proposed)

THE FUTURE OF MONEY

One

The Changing Geography of Money

THE GEOGRAPHY of money is changing. Once upon a time it was not inaccurate to think of monetary spaces in simple territorial terms. Many currencies existed, but for the most part each circulated separately within the political frontiers of a single nation-state. Each government was in charge of its own sanctioned money. Today, however, the world's monetary landscape is being rapidly transformed under the impact of accelerating competition among currencies across national borders. Money is becoming increasingly *deterritorialized*, no longer the instrument of an exclusive national sovereignty.

What will the geography of money look like tomorrow? The prospect, according to many popular predictions, is for a radical shrinkage in the number of currencies in circulation, greatly simplifying the management of money around the world. I call this the Contraction Contention. But the Contraction Contention, I contend, is utterly wrong. The central argument of this book is that the population of the world's monies is more likely to expand, not contract, both in number and diversity. The future of money will be one of persistently growing complexity, posing increasingly difficult challenges for state authorities.

Revival of Currency Competition

The geography of money refers to the spatial organization of currency relations—the functional domains within which each currency serves the three traditional functions of money: medium of exchange, unit of account, and store of value. As a medium of exchange, money is synonymous with the circulating means of payment. In this role, its key attribute is its general acceptability to satisfy contractual obligations. As a unit of account, money provides a common denominator, or *numéraire*, for the valuation of diverse goods, services, and assets. Here, its key attribute is its ability to convey pricing information both reliably and expeditiously. As a store of value, money offers a convenient means for holding wealth. In this role, its key attribute is its ability to store purchasing power, bridging the interval, however transitory, between receipts from sales and payments for purchases The overall configuration of currency domains comprises global monetary geography.

The invention of money was one of the most important steps in the evolution of human civilization—"comparable," as one source has suggested, "with the domestication of animals, the cultivation of the land, and the harnessing of power" (Morgan 1965, 11). Gertrude Stein said that "the thing that differentiates animals and man is money."[1] Before money there was only barter, the archetypical economic transaction, which required an inverse double coincidence of wants for exchange to occur. Each of two parties had to desire what the other was prepared to offer—a manifestly inefficient system of trade, since much time had to be devoted to the necessary processes of searching and bargaining. With the introduction of money, the single transaction of barter split into two separate parts, sale and purchase, reducing transactions costs—the expenses associated with searching, bargaining, uncertainty, and the enforcement of contracts. Instead of goods or services for immediate delivery, a seller can accept money, hold it until needed for a purchase, and in the meantime use it to judge value in the marketplace. As a consequence, exchange is facilitated, promoting specialization in production and an increasingly efficient division of labor. Money, in effect, multilateralizes barter.

The magnitude of the cost saving afforded by monetary exchange, in lieu of primitive bilateral barter, is directly related to the size of a given money's transactional network: the number of actors with sufficient confidence in the instrument's future value and reusability to accept its present validity for both payment and accounting purposes. The larger the size of a money's transactional network, the greater will be the economies of scale to be derived from its use—what theorists call money's "network externalities" (Dowd and Greenaway 1993). Transactional networks define the functional domains of individual currencies, encompassing the range of their effective use.

It is conventional to identify currency domains with the nation-state, the basic unit of world politics. Just as in political geography we have long been conditioned to see the world's surface in terms of fixed and mutually exclusive entities called states, so we are conditioned to think of monetary geography in terms of the separate sovereign jurisdictions in which currencies originate. With few exceptions, each state is assumed to have its own unique money. Inside the nation's frontiers, that currency alone is expected to circulate freely. Money, in short, is thought to be effectively *territorial*—One Nation/One Money—with monetary governance exercised monopolistically by each national government. Nothing could be simpler.

But neither could anything be more misleading. In fact the notion of exclusive national currencies is of very recent historical origin, dating, in actual practice, back no further than the nineteenth century. Monetary geography in earlier eras was far more complex, involving varying degrees

of competition among currencies; and even in the last two centuries, the principle of One Nation/One Money was as frequently compromised as respected. Today currency competition is reviving, causing the functional domains of individual monies to diverge more and more sharply from the legal jurisdictions of issuing governments. As in the more distant past, currency is once again becoming deterritorialized and monetary geography is once again growing more complex, with implications for monetary governance that are only beginning to be understood.

The Distant Past

Modern money began with the practice of sovereign coinage, whose origins go back to the very dawn of civilization. In the Western world, coins first appeared in the Greek city-states of Asia Minor (in Western Turkey) during the eighth and seventh centuries B.C.E. and were to be found everywhere in the eastern Mediterranean by 500 B.C.E. In the Far East, the oldest known coins originated even earlier, during the Chou dynasty that commenced in 1022 B.C.E. Previously all kinds of commodities, from salt and rice to cattle and tobacco, had been used in one place or another for standard monetary purposes (Weatherford 1997, ch. 1). But once invented, coins quickly came to dominate all other available instruments.

Before the nineteenth century, however, the sovereign right of coinage was hardly ever interpreted in exclusively territorial terms. Few rulers expected—or even, in principle, claimed—a monopoly for their coins within their own frontiers. Quite the contrary, in fact. The accepted norm was that coins could circulate everywhere, regardless of borders. Foreign coins could be used interchangeably with local money, and restrictions were only rarely imposed on what could be offered or accepted in market transactions. Choice was virtually unlimited. Currencies were effectively deterritorialized, and cross-border competition was the rule, not the exception. The system was heterogeneous and multiform, a veritable mosaic of money.

Not every currency circulated everywhere, of course. Most coins were of the small, fractional variety—"petty" coins generated for use in strictly local transactions. Minted of base metals like copper or bronze alloy, with a metallic content of little intrinsic value, these tokens were not often accepted and so were rarely found outside the limited area where they were issued. Widespread circulation was mainly restricted to bigger "full-bodied" coins of silver or gold ("specie")—monies whose usefulness as a medium of exchange or store of value could be more readily assured.

Among these full-bodied monies competition for the allegiance of users was keen, for two reasons. On the one hand there was the possibility of

debasement: depreciation of the intrinsic value of coinage, accidental or otherwise, through erosion of weight or fineness. On the other hand, there was also a possibility of a shift in the commodity price of gold or silver, which would alter the relative attractiveness of coins minted from either metal. From these contingencies arose the famous proposition known as Gresham's Law—"Bad money drives out good"—named after a sixteenth-century English businessman who, among other accomplishments, was a financial adviser to Queen Elizabeth I. Gresham's Law predicted that where the intrinsic values of individual monies, as determined by market forces, diverge from their nominal values, the money of higher intrinsic value will be withdrawn from circulation and hoarded in anticipation of a rise of price. No one wanted to give up a coin that was likely to be worth more in the future.

Over time, however, as everyone sought the same "good" money, market favorites tended to develop, creating a hierarchy among full-bodied currencies—a kind of Gresham's-Law-in-reverse. "Good" money would drive out "bad" coins whose intrinsic value could not be maintained. Typically just one coin would eventually emerge as the dominant international money, the winner in a demand-driven process of natural selection. This Darwinian favorite would be used widely beyond the formal jurisdiction of the entity that issued it. Other monies would then offer the ultimate flattery—imitation—patterning themselves on the principal features of the dominant coin. Examples of dominant international coins down through the ages included the silver drachma of ancient Athens, the Byzantine gold solidus (later known, under Italian influence, as the bezant), the florin of Florence, the ducat of Venice, the Spanish-Mexican silver peso (later called the Mexican silver dollar), and the Dutch guilder.

Still, whatever money happened to dominate at any particular time, and however faithful its imitation by others, many other coins remained in circulation with diverse features and uncertain rates of exchange. In principle, this motley mosaic should have caused confusion—not to say chaos—in commercial and financial markets. How could one judge the meaning of prices with so many currencies in circulation? In practice, however, many difficulties, though by no means all, were resolved by the more or less spontaneous emergence of so-called imaginary or ghost monies—abstract units of account that could be used to compare the values of real currencies in actual use. Most popular in Europe were diverse variations on the silver pound unit, such as the livre (French), lire (Italian), peso (Spanish), and pfund (German) as well as of course the British pound sterling. In effect, a distinction was created between two of the functions of money: the medium of exchange and the unit of account. Any number of coins could pass from hand to hand in daily transactions. Ghost monies simplified transactions in a world of competing currencies.

The Era of Territorial Money

Truly fundamental changes in the geography of money did not occur until well into the nineteenth century, as national governments, eager to consolidate their emerging powers, started to assert greater control over the creation and management of money. For the first time in history, the goal of an exclusive national currency—One Nation/One Money—came to seem both legitimate and attainable. Once begun, the transformation of currency space took hold quickly and spread rapidly. Even before the century's end it was clear that a new age, the era of territorial money, had arrived.[2]

Monopoly over monetary powers was a natural corollary of broader trends in global politics at the time. The nineteenth century was a period of rising nationalism and a general centralization of political authority within state borders, greatly inspired by the Peace of Westphalia of 1648. Westphalia has long been recognized as a major watershed event in world politics, for the first time establishing the principle of absolute sovereignty based on exclusive territoriality. The treaty's ostensible purpose was to end the Thirty Years War. Its provisions addressed a number of contentious issues, including various dynastic claims, divisions of territory, religious practice, and the constitution of the Holy Roman Empire. But the Peace is most remembered for its assertion of the norm of sovereignty for each state within its own geographical frontiers, in effect formally establishing territoriality as the sole basis for Europe's—and, by extension, the world's—political map. Henceforth power was to be embodied in the independent, autonomous state, and global politics was to be conceived in terms of the now familiar state system.

Over the course of the nineteenth century the norm of sovereignty achieved a new level of tangible expression as governments undertook systematically to suppress all threats to their rule, whether from powers abroad or rivals at home. Their goal was to build up the nation, as far as possible, as a unified economic and political community led by a strong central authority. Monopolization of control over money was simply a logical part of the process. The territorial state came to be generally accepted as the basic unit of monetary authority as well—what in *The Geography of Money* I called the Westphalian Model of monetary geography.

Creating new territorial currencies was not easy. In fact, an enormous and sustained governmental effort was required to overcome market forces and centuries of monetary tradition. Control was implemented in two principal ways—first, by promoting the development of a robust national money; and second, by limiting the role of rival foreign currencies.

On the one hand, governments sought to consolidate and unify the domestic monetary order. Standardization was promoted, not only in coin-

age, but also in the new paper banknotes that were then just coming onto the scene. In addition, all forms of internal money were now fixed in relation to one another and tied to a uniform metallic standard, eliminating the need for ghost monies. The national unit of account now corresponded directly to tangible money in circulation. And ultimate authority over the supply of money was firmly lodged in a government-sponsored central bank, newly created or empowered to sustain both currency convertibility and the well being of the banking system.

On the other hand, increasingly prohibitive restrictions were imposed on the free circulation of foreign currencies. Most prominent were new legal-tender laws and public-receivability provisions. Legal tender is any money that a creditor is obligated to accept in payment of a debt. Public receivability refers to what currency may be used for remittance of taxes or to satisfy other contractual obligations to the state. As the nineteenth century progressed, coins that previously had been permitted, or even specifically authorized, to serve as legal tender had that privilege gradually withdrawn. At the same time, public receivability was gradually confined to domestic money alone. Also, and with increasing frequency, governments curtailed or suspended their commitment to accept foreign coins freely for conversion at the national mint. And ultimately, in most countries, the circulation of foreign currency was banned altogether, at least formally.

The experience of the United States was typical. Until the middle of the nineteenth century, the Mexican silver dollar and several other foreign currencies (including the gold coins of Britain, France, Portugal, and Brazil) not only circulated widely in the United States, but were even explicitly protected by federal legislation dating back to 1793. During the 1850s, however, when new U.S. silver and copper coins were introduced to ease a growing currency shortage, the opportunity was seized to eliminate all foreign elements from the money supply. In 1857 rates were fixed at which, for a limited time, the Treasury would accept foreign money for reminting into U.S. coinage. After 1861 the dollar became the country's sole legal tender, although it was to be another half-century before paper money would be standardized with the creation of the Federal Reserve System, America's own central bank.

In Britain the process started even earlier, with coinage reforms enacted after the Napoleonic Wars and later with the Bank Charter Act of 1844, which finally consolidated the central position of the Bank of England in the national financial system. Fully fledged territorial currencies also began to emerge elsewhere in Europe, as well as in Japan, during the second half of the century; and later, in the 1900s, in the British Empire and throughout Latin America. By the middle of the twentieth century, the exclusive monetary authority of national governments had become universally recognized and enshrined in international law. When the great

wave of decolonization got under way after World War II, ultimately bringing scores of new states onto the global stage, few even questioned the assumption that each nation might legitimately aspire to create its own central bank and territorial money.

Back to the Future

In historical terms the Westphalian Model of monetary geography enjoyed a remarkably short life. From its beginnings in the nineteenth century, it reached its apogee during the Great Depression of the 1930s and the years following World War II, when newly invented limitations on cross-border transactions—exchange restrictions and capital controls—were widely employed to reinforce the exclusive role of each state's money within its own territory. Never before had governments come so close to absolute monopoly in the governance of monetary affairs. But the privilege was not to last as, in more recent years and under the pressure of market forces, competition among currencies has gradually re-emerged and intensified.

Even during its heyday, the Westphalian Model was never absolute. The broad norm of state sovereignty, as Stephen Krasner (1999) has accurately observed, has always been subject to compromise, depending on circumstances—"widely recognized but also frequently violated,"as he writes (8). "Talk and action do not coincide." Currency was as much a matter of "organized hypocrisy," to borrow Krasner's phrase, as any other element of global politics. Though the norm of One Nation/One Money prevailed in principle, reflecting the logic of the territorial state, it was not necessarily expected to prevail everywhere in actual practice. Not all governments had the economic or political capacity to exercise the full powers of monetary monopoly; nor were all currencies successfully insulated from competition by more attractive foreign rivals. For many states, there seemed little choice but to accept some degree of compromise of policy authority. Two broad options were possible, either *subordination* or *sharing* of monetary sovereignty—what, in *The Geography of Money*, I called the Two S's.

Subordination, embodying a vertical hierarchy among states, most frequently took the form of a bilateral exchange-rate peg, whereby the price of the home currency was tied more or less firmly to that of a dominant foreign money, typically labeled the anchor currency or reserve currency. Exchange stability was promoted, but at the cost of a higher degree of sensitivity to the foreign money's market power or to the policy preferences of its issuing government. A stronger version of an exchange-rate peg is a currency board, which encompasses not only a fixed-price relationship but