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Monetary Unions and the Problem of Sovereignty

By ROBERT A. MUNDELL

ABSTRACT: Different types of monetary sovereignty are issues in exchange rate agreements monetary unions. Policy sovereignty refers to independence in making exchange rate and monetary policy, legal sovereignty to a country's ability to make its own laws with respect to the unit of contract and medium of exchange. This article traces the history of the concepts and their applications in the history of political philosophy and monetary policies. The first section relates the concepts of legal and policy sovereignty as they emerged in Roman law into the Europe of the Middle Ages and Renaissance. The second part discusses the implication of the sovereignty issue for choice along the road to the European Monetary Union.

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MONETARY integration involves a consideration of two quite different types or dimensions of sovereignty. One is *policy sovereignty*, and the other is *legal sovereignty*. Policy sovereignty refers to the ability to conduct policy independent of commitments to other countries. Legal sovereignty refers to the ability of a state to make its own laws without limitations imposed by any outside authority. Both concepts need to be considered in plans for monetary unions. What are the implications of a change in legal sovereignty when the national currencies of some of the oldest states in the world abandon national sovereignty, and what will they receive in exchange?

In the middle of the last century, John Stuart Mill ([1848] 1909) recognized but deplored the sentiment that made nations so attached to their own currencies:

So much of barbarism still remains in the transactions of the most civilized nations, that almost all independent countries choose to assert their nationality by having, to their own inconvenience and that of their neighbours, a peculiar currency of their own. (P. 615)

Has the world—or Europe—changed to such an extent that the national populations are now prepared to scrap those hallmarks of sovereignty that have existed for thousands of years?

What is the nature of the sentiment that makes national currencies so difficult to give up? Some idea of this can be got from British or English history, whose currency goes back at least thirteen centuries. Sir Robert Peel, in 1819, quoted in the

House of Commons the evidence of a London accountant given before the Committee on the Resumption of Cash Payments:

He was required to define what he meant by the pound. His answer was: "I find it difficult to explain it, but every gentleman in England knows it." The Committee repeated the question, and Mr. Smith answered: "It is something that has existed without variation in this country for eight hundred years—three hundred years before the introduction of gold." (Feaveryear 1963, 1)

Peel quoted Smith's opinion only to ridicule it because Peel would become the political champion of those who held the view—with John Locke,¹ Isaac Newton, David Ricardo, John Stuart Mill, and a host of other classical economists—that the "pound sterling could only rightly be defined as a 'definite quantity of gold bullion.'" (Feaveryear 1963, 1). That makes the pound into a commodity rather than a money because the essence of money lies not in the value of the commodity of which it is made but in its overvaluation.

This article will discuss the relation of monetary integration to both types of sovereignty, but its primary emphasis will be on the implications for legal sovereignty of different types of monetary unions. The sections in part 1 will explore the concepts of policy and legal sovereignty and relate these concepts to the history of the monetary sovereignty as it emerged from Roman law into the Europe of the Middle Ages. The sections in part 2 will discuss explicitly some implications of the sovereignty issue for choices made with respect to

sovereignty along the road to the European Monetary Union (EMU).

PART 1. TYPES
OF SOVEREIGNTY

I shall in this part discuss different types of sovereignty, paying attention to the distinction between legal and policy sovereignty in monetary unions, the concept of monetary sovereignty itself, the early history of monetary sovereignty in the ancient world and the Europe of the Middle Ages, and finally the landmark "Case of the Mixed Moneys," which established a legal precedent on which subsequent legal history has drawn.

*Policy sovereignty and
legal sovereignty*

One step in the spectrum of monetary integration from complete independence with freely flexible exchange rates to complete union with currency unification is a system of fixed exchange rates. When a country opts for fixed exchange rates, it sacrifices monetary policy autonomy in favor of a mechanism of adjustment for correcting the balance of payments. In short, it sacrifices policy sovereignty in the field of money.

Where does the sovereignty go? One possibility is a system in which the sovereignty is transferred to a hegemony. If a small country unilaterally fixes its currency to that of a larger neighbor, it in effect transfers policy sovereignty to that larger neighbor. The fixing country loses sovereignty because it no longer controls its own monetary destiny; the larger country gains sovereignty because it manages a larger currency

area and gains more "clout" in the international monetary system.² The rate of inflation in the system will be governed by the monetary policy of the hegemony. To a very great extent, this was the type of system practiced within the great empires of the major powers leading up to World War I.

If, on the other hand, several countries agree to cooperate in forming a currency area, the " $n - 1$ " or "redundancy problem" leaves open for policy the rate of monetary expansion of the area as a whole and therefore its rate of inflation. Some kind of monetary authority would determine the monetary policy for the area as a whole, and each country would share in the area's sovereignty according to the political terms of the monetary agreement. Each country sacrifices its complete sovereignty over its own monetary policy in exchange for its share—however allocated—in the more powerful sovereignty exercised by the joint monetary authority.

A system of fixed exchange rates with a central control over the currency area's monetary policy is by no means a complete monetary union. A further step along the road to monetary integration is the creation of a joint currency. Whether the creation of a joint currency represents an important or an unimportant change in sovereignty depends on its legal attributes. In the events leading up to the Bretton Woods meeting, both the White and Keynes plans had made provisions for a world currency that would have had a kind of legal tender power—bancor in the Keynes plan, unitas in the White plan. Both these proposals were rejected by the United States, undoubtedly because

it would have involved a loss of monetary sovereignty to the largest power.

The creation of the SDR, however, was acceptable because it was not explicitly a reserve asset, and a country's liability was limited. Initially, when established in 1968, the SDR had a gold weight guarantee. As soon as the price of gold soared, however, the gold guarantee was stripped away from it, and further allocations were too small to have an important impact on the international monetary system. Countries—and this meant especially the largest countries—were not willing to confer either policy sovereignty or legal sovereignty in the field of money to a supranational institution. The important decisions in the field of international economic policy have been made by the large powers unilaterally or in groups like the G5 or G7.

A more interesting case, perhaps, has been the creation of the ECU, which is scheduled to be the unit from which the euro evolved in 1999. The European Monetary System, established in 1978, was a loose system in some respects patterned after the arrangements set up at Bretton Woods but with the addition of the ECU as the unit of account for the system. The setting up of the ECU did not itself involve much transfer of policy sovereignty and almost no transfer of legal sovereignty. The national currencies were still sole legal tender in their respective authorities and—except for the transactions of the European Commission (which, admittedly, have become increasingly important)—the use of the ECU was purely voluntary.

The Exchange Rate Mechanism (ERM), however, did involve a transfer of policy sovereignty. Although the pegging arrangement was intended to be multinational, forces in the exchange market took over, and it soon gravitated to a DM zone, with monetary policy determined by the Bundesbank. Policy sovereignty was therefore shifted from the other nation-states in the ERM to Germany. The aftermath of German spending after the unification shock in 1990, however, brought about a conflict between stability in the German economy and its neighbors, and the system had to be modified.

When EMU came into being, important changes ensued for policy sovereignty. The exchange rates of members were irrevocably fixed, and the monetary policy of the area as a whole was under the control of the European Central Bank (ECB). Thus, each country sacrificed its policy sovereignty in the field of its own money in exchange for its share of policy sovereignty in the direction of the ECB. The governors of the national central banks are members of the Governing Council of the European System of Central Banks, and as many as six of the countries are on its six-member Executive Board, each of whom also has a vote on the Governing Council. Even though the principle is one country, one vote (probably a mistake), in practice the large countries will have a greater voice in dominating the ECB and staffing its top officers.³ From the standpoint of policy sovereignty, EMU will be different from the ERM in that it will be irrevocable and the

supranational policy sovereignty will be shared.

The EMU plan, however, goes far beyond policy sovereignty and the creation of a new currency. It involves also the *replacement* of national currencies by the euro, which will take place for the first entrants starting on 1 January 2002 and extending no later than 30 June of the same year. The implications of this change for legal sovereignty are extremely important for the countries involved. The right to produce a national currency has for centuries—even millennia—been looked on as a principal dimension of political independence and a badge of legal sovereignty. Yet, the decision to opt for a monetary union that replaces national currencies with a single currency seems to have been taken up and accepted with little discussion.

The Maastricht plan for a single currency to replace the national currencies was a key feature of the Delors Report, which stated the following:

The adoption of a *single currency*, while not strictly necessary for the creation of a monetary union, might be seen—for economic as well as psychological and political reasons—as a natural and desirable further development of the monetary union. A single currency would clearly demonstrate the irreversibility of the . . . union, considerably facilitate the monetary management of the Community and avoid the transactions costs of converting currencies. . . . The replacement of national currencies by a single currency should therefore take place as soon as possible after the locking of parities. (Quoted in Kenen 1995, 14)

The Delors Committee was not assigned to make a case for EMU but rather to make recommendations as to how it should be brought about. The committee's report found its way into the Maastricht Treaty, but it did not explicitly outline the implications of scrapping national currencies. If countries give up their legal national sovereignty, what will be the nature of the share in sovereignty they get in exchange? What are the psychological effects of abandoning the heritage? Can monetary sovereignty be sacrificed without political sovereignty? Where will the sovereignty go? What will citizens get in exchange? What are the "psychological and political reasons" mentioned in the Delors Report?

Every member of the International Monetary Fund (IMF) has an independent currency, which it currently regards as a mark of its political independence and national sovereignty⁴ as well as a part of its national heritage and patrimony. This is despite the fact that twentieth-century governments without exception abused that sovereignty by resorting to inflationary policies. Will European Union (EU) members of the Executive Board of the IMF be content to be represented by a single monetary authority, or will they want to maintain their national representations? What are the implications for the "law of payment," that rule known in law since antiquity that specifies that an independent country has the right to determine that which is acceptable as legal tender in payment of debt? Other issues concern the potentially inflationary

impact of replacing several national currencies by a single “more liquid” currency, the sacrifice and redistribution of seigniorage in the union, and the mental and psychological transactions costs and even trauma of changing units of account.

Much attention in the literature has been given to the difference between monetary systems based on fixed and flexible exchange rates. Strictly speaking, this is a false issue since the two are incomparable. A fixed exchange rate is a monetary rule, and such a system should be contrasted with other monetary rules, not the absence of a monetary rule. Within the category of fixed exchange rates, however, there are several options depending on such factors as the irrevocability of the commitment to the parity, the width (if any) of the exchange rate margins, the asymmetry of the intervention responsibilities, and the degree of unification of the units of account. We shall have to touch here on the difference, relevant to the sovereignty issue, between a system of rigidly fixed parities and a single currency.

The sovereignty issue

We now need to turn to the issue of monetary sovereignty itself. What is it? Where is it located? When did it come into being? What are the implications of giving it up or sharing it? By what legal process is it transferred? Who has the right to transfer it? Is transfer irrevocable? Does the state exist without it? Where does sovereignty lie in a monetary union of independent states? These are some of the questions that could be

asked about monetary sovereignty in a future monetary union.

Monetary sovereignty might be thought of as one of the dimensions of political sovereignty. But therein lies a problem. According to political scientists, the concept of political sovereignty was developed in Renaissance times, starting importantly with Jean Bodin in 1576. But the concept of monetary sovereignty is far older. It goes back to the Romans and before; quite probably it goes back to the ancient empires of Sumer, India, Babylon, and Egypt. The literature in the ancient world is explicit and substantial.

First, however, let us see what sovereignty means in political science. According to one view, the concept of sovereignty “implies a theory of politics which claims that in every system of government there must be some absolute power of final decision exercised by some person or body recognized as competent to decide and able to enforce the decision” (Crick 1968). The simplest form of the theory is the common assertion that “the state is sovereign,” which is usually a tautology, just as the expression “sovereign state” can be a pleonasm (Crick 1968). The concept of the state came into being about the same time as the concept of sovereignty, and it served the same purpose and had the same meaning (Crick 1968).

Not surprisingly, the concept of political sovereignty came into being at a time when it became a necessity. The concept received extensive treatment in the hands of Jean Bodin writing soon after the Massacre of the Huguenots on St. Bartholomew’s Day in 1572. Bodin was a kind of

polyhistor—an economist as well as a jurist. He was the originator of the partly correct quantity-of-metal theory of the value of money and held and tested the proposition that the great increase in prices in the sixteenth century was due to the influx of metals (Bodin [1568] 1946) from America, a theory Earl Hamilton would test but only partially validated four centuries later.⁵ Bodin was writing in the midst of the great religious wars associated with the counterreformation. He saw civil war as the worst of all evils, held that the state was primarily concerned with the maintenance of order and not the establishment of true religion, and introduced his concept of sovereignty to bolster the power of the French king over the rebellious feudal lords and the church: “It is clear that the principal mark of sovereign majesty . . . is the right to impose laws generally on all subjects regardless of their consent. . . . If he is to govern the state well, a sovereign prince must be above the law.” Bodin thought he had found in this principle a universal recipe for political stability (Crick 1968, 79). Bodin’s views were taken up by Hobbes (1651) who also was preoccupied with the problem of civil war. In their theories, sovereignty was more or less absolute except insofar as they conflicted with divine right (Bodin) or the laws of nature (Hobbes).

Earlier, Machiavelli, in *The Prince*, did not develop the concept of sovereignty, but he did recognize the distinctions in power necessary for two quite different situations—peace where republicanism can rule and war where dictatorship is, if not

inevitable, more likely. This distinction can be seen in the doctrine of constitutional dictatorship in the Greek states and in the Roman Republic, as also in the assumption of emergency powers by Lincoln during the Civil War and by Churchill in World War II. “Is there, in all republics,” asked Lincoln in 1861, “this necessary and fatal weakness? Must a government, of necessity, be too strong for the liberties of its people, or too weak to maintain its own existence?” (Crick 1968, 80).

Later developments of the concept tried to reconcile the theory of sovereignty with that of consent, with not much success. During the French Revolution, it was asserted that “Sovereignty is one, indivisible, unalienable and imprescriptible; it belongs to the Nation; no group can attribute sovereignty to itself nor can an individual arrogate it to himself.” The idea of popular sovereignty became identified with the slogan “sovereignty of the people,” which Alexis de Tocqueville and John Stuart Mill both identified with the “tyranny of public opinion” (Crick 1968, 80).

Recent monetary literature has not paid much attention to sovereignty. Fred Hirsch (1969), however, recognized the intimate connection between sovereignty and the right to issue money:

One of the hallmarks of national sovereignty throughout the ages has been the right to “create money”—that is for the sovereign to lay down what is or is not legal tender, to require that it shall be accepted in settlement of debt within the country’s borders, and to maintain the sole right of issuing this national money.

None of these sovereign powers will itself control the way in which individuals choose to use this money—that will depend on the “quality” of the money itself, on its real worth in relation to the goods it buys or to other forms of money that individuals can get hold of or spontaneously create. But the ability to create its own domestic money is the key financial distinction of a sovereign state. (P. 22)⁶

*Early concepts of
monetary sovereignty*

As already noted, the concept or doctrine of political sovereignty entered the literature of political science in the sixteenth century, thousands of years after the concept of monetary sovereignty had been proclaimed by the rulers or priesthood of the ancient theocracies. Different metals received different treatment. In early times, gold was a sacred metal, under the control of the top prelate, a position often combined with the top ruler. The earliest mints were temples; indeed, our word for money derives from the surname of Juno: the earliest Roman money was coined in the temple of Juno Moneta, from the Latin word *monere*, meaning “to warn”: Juno “the Warner” was said to have promised that if the Romans fought only “just” wars they would never be short of money.⁷

The authority to create money was a prerogative of the sovereign or the priesthood from very early times. Coins were a fiscal resource to the extent that they were overvalued. Overvaluation requires a monopoly, which must be enforced by control over the supplies of the precious metals, laws against counterfeiting, and the law of payment that make money

legal tender. In ancient India, laws regarding the use of the precious metals (including copper) were precise: the Code of Manou classifies robbery of sacred gold or the gold of a priest with the highest crimes, debasers of metals are classed with rogues, and a goldsmith who commits fraud “shall be cut piecemeal with razors.” (Del Mar 1885, 62).

From the very beginnings of coinage in ancient Lydia (or some as yet undiscovered place), coinage was overvalued. The Lydian kings, perhaps starting with the usurper Gyges, maintained the overvalued one-third stater electrum coins that were the staple of the Mermnadae dynasty that ended with the self-immolation of Croesus in 546 B.C. The Persian conquerors of Lydia maintained an overvalued gold coinage, with an artificial bimetallic ratio of 13:1 at a time when the silver price of gold outside the empire was half that. The coinage prerogative was rigorously asserted by the Persian state. Herodotus tells us that Darius, having coined gold money that was stamped with his own image, accused and condemned to death Ariander, his viceroy in Egypt, for having coined similar pieces in silver. (Grimaudet [1579] 1900, 12).

A similar system was adopted by the Romans after 46 B.C. but at a ratio of 12:1, which was maintained, through Rome’s successor in Constantinople, until the sacking of that great city by the Crusaders in 1204. Protection of the monetary prerogative required draconian laws against and gruesome tortures for infringements on it. The Christian states of Western Europe acknowledged the

de jure sovereignty in matters of gold coinage of the god-emperor at Constantinople and abstained from it as long as that authority lasted.

The formation of the Holy Roman Empire with the crowning of Charlemagne in 800 set in motion the running battle between church and state in the West and between the Western papacy and the Eastern church. The second battle ended in 1204, but the struggle between the empire and the Western papacy would last through the Middle Ages. Within its own geographical domain, the Holy Roman Empire was sovereign, and the communes of the Empire were on occasion granted charters to coin money. In the case of Siena, this was granted by Henry VI, king of the Romans (eldest son of the Emperor):

In the name of the Holy and Indivisible Trinity, We, Henry VI, by divine favor, King of the Romans . . . make known to all the faithful of the empire, present as well as future, that in view of the merits of our trusty subjects, the citizens of Siena, we grant them . . . the privilege of coining money in the city of Siena. (Schevill 1909, 57)

Early money for these satellite states was coined "by the grace of Caesar."

The Western emperors had local power, but their sovereignty was qualified. The right to coin gold had been from early history the mark of complete sovereignty. Neither Charlemagne nor any of his successors—until Frederick II—coined gold. The gold coinage of Europe was the bezant, which was produced in Constantinople by the lawful descendants of Constantine. The circulation of gold bezants and its fractions

served throughout Europe not only as a standard for weights and measures but also as a check on debasement and devaluation. The one-quarter bezant piece had exactly the same weight as an English (silver) penny. The pretensions of Charlemagne were immense, but they did not challenge the monopoly of gold that had been jealously guarded in Rome or Constantinople since the time of Julius Caesar.

The Holy Roman Empire was, it has been said, a fiction: neither holy, Roman, nor an empire. The German emperors had nominal authority over the smaller communes and could grant charters and licenses, but the Basileus at Constantinople had legal sovereignty.

With the sack of Constantinople in 1204, however, that empire collapsed. It was not at first clear where the coinage prerogative would go. But in 1225, Frederick II leaped into the breach with his magnificent augustal coins. With Frederick's death in 1250, the empire fell (temporarily). The gold prerogative was now up for grabs. Who would fill the gap? Gold coinage suddenly flourished in France, Florence, Genoa, and even England⁸ in the interregnum, while other countries followed later. But the gold currencies that became the "dollars of the Middle Ages" were the ducats, sequins, and florins—virtually interchangeable coins—produced by the Italian city states.

In one sense, these coins were not yet legal. The empire had lost the mantle of sovereignty, and a few states had produced gold coins, but there was no formal transfer of sovereignty. Edward III had issued his

gold nobles in his capacity as vicar-general of the Holy Roman Empire. It was not until the year 1356 that the empire (which had been reformed) issued its "golden bull," formally ceding the gold prerogative to the kings of Europe.⁹

Before this final event, the nations of Europe had been gradually building up their independence from the emperor and the pope in a series of steps that gave their kings complete control over the precious metals. There were various steps in this process: the assertion of mines royal, treasure trove, coinage of gold, demonetization of the Imperial bezant and other coins, control over the movement of the precious metals, the suppression of episcopal and baronial mints, the trial of the pix, the regulation of the standard, and the doctrine of national money. In England, these were accomplished by the monarch in the thirteenth and fourteenth centuries (Del Mar [1895] 1968, 277).

An early treatise on English law, ascribed to Ranulf de Glanvill (1187-89), starts off in the tone of Justinian's *Pandects* asserting the famous maxim of absolutism: "The will of the prince has the force of law," with no mention of consent of the governed; he does, however, attempt to justify the laws of England against the charge that they have not been written down. The main body of the work begins with a specification of crimes and jurisdictions, in the course of which he outlines the dimensions of *crimen laesae maiestatis*:

Of please some are civil, some are criminal. Again, of criminal pleas some pertain

to the crown of our lord the king, others to the sheriffs of the counties. To the king's crown belong these: the crime which in the *leges* [i.e., the Roman laws] is called *crimen laesae maiestatis*,—as by slaying the king or by a betrayal of his person or realm or army,—the concealment of treasure trove, breach of his peace, homicide, arson, robbery, rape, forgery, and the like. (Haskins [1927] 1957, 219)

The doctrine of mines royal holds that all mines producing one or both of the precious metals belongs to the crown. Louis IX of France was the first Christian king to assert it, and he was followed by Henry III in 1262. Henry, however, was bullied out of this right by the pope, and it never came into force again until the reign of Edward III. With respect to the doctrine of treasure trove—a modern version is "finder's keepers"—Edward the Confessor had declared that all the gold and one-half of the silver belonged of right to the king; a later version of it in France and also England was that all the gold belonged to the king, while all the silver was relinquished to the nobles. By the time of Edward III, however, the crown claimed all the gold and all the silver.

Gold coinage, as we have seen, was first asserted—timidly—by Henry III but boldly by Edward III in the next century. Before that time, until 1204, it was conceded universally to have been the lawful successor of Constantine and therefore the lawful suzerain of the empire to which in certain respects kings owed fealty (Del Mar [1895] 1968, 279). In an important sense, England achieved her complete independence only in 1356 or perhaps 1366 or even later.¹⁰

It was around the year 1291 that Edward I ordered that no foreign coins should be admitted into the kingdom except such as might be in use by travelers and others for casual expenses; and to these, he provided public offices where they might be exchanged. This law was probably aimed at the bezant, the most important foreign coin in circulation; other coins continued to circulate as before (Del Mar [1895] 1968, 279).

The power to regulate gold and silver movements had not been asserted before the thirteenth century, and the assumption of this regalian right, along with the purging of baronial and episcopal mints, was an important part of the process of centralizing the money power in the hands of the sovereign. A related development was the appointment of the Monetary Commission of 1293, in the twenty-second year of the reign of Edward I, with the mandate to examine the coins employed in the kingdoms and report on them to the king.

The "trial of the pix" is a test for the standard of the coinage.¹¹ Of Roman origin,¹² it was introduced in the reign of Henry I and became widespread two centuries later in the reign of Edward I. Its widespread use was a telltale indication that the coinage had deteriorated. So long as the sacred empire remained, the coinage prerogative of the Basileus acted as a continual check on any tendency to adulterate the coinage. Yet, once this yoke was thrown off, adulteration became prevalent in all parts of Europe.¹³

The right to produce and control money is a clear-cut test of a country's independence and sovereignty.

The most important dimension of this monetary sovereignty, however, is the right of a state to declare that which counts as legal tender. This principle, called the law of payment, goes back to ancient times, to Paulus and the Pandects of Justinian. But nothing is heard of it before the downfall of the sacred Empire, and it is first noted in England in the reign of Edward III.

The countries of Europe not only had to deal with the residual powers of the Empire but also with the Church, which at all times in the Middle Ages was a multinational power seeking to impose its authority over the nations of Europe. But the larger nations did not always comply. When Pope Boniface VIII wrote to Philip le Bel, claiming him as "a subject both in spirituals and temporals," Philip replied, "We give your Foolship to know that in temporals we are subject to no person" (quoted in Del Mar [1895] 1968, 279). This made clear France's independence of both the empire and the papacy—in this reign at least. In England, however, the test came somewhat later. It was not until 1366, in the fortieth year of the reign of Edward III, that England broke free of Rome. In that year, it was ordered that Peter's-pence should no more be gathered in England or paid to Rome (Del Mar [1895] 1968, 283). Finally, in that year, England could be considered an independent, if not completely sovereign state, free at last from the ghost of Roman authority and monetary tribute to—if not spiritual authority from—Rome.

The concept of political sovereignty was borne out of need: civil

war created the need for authority and the power of the church created the need for an independent temporal power. England broke free of the Church and established her spiritual sovereignty early in the sixteenth century, but France was still Catholic, and the counterreformation was in full swing on the frightful day of St. Bartholomew in 1572. Bodin's doctrine of sovereignty filled the need of the nationalist party (led by Bodin's patron, the king's brother),¹⁴ which, while still Catholic, wanted to end the persecution of the Huguenots and reestablish civil order. Bodin's concept of sovereignty explicitly incorporated the money prerogative (Bodin 1576 I, chap. 11, 213; quoted in Nussbaum 1950, 34).

Bodin's conception of sovereignty was not original with him. A contemporary, François Grimaudet (1520-80), born ten years earlier than Bodin, had already printed a book in 1560 that explicitly proclaimed the doctrine "That the welfare of the State demanded the subjection of the ecclesiastical to the civil power, in whose hands all the functions of society were legally invested." It would be surprising if Bodin had not seen this work. Grimaudet also wrote several books on money and the law, including a major treatise on the law of payment. At one point, he insisted the following:

The value of money depends on the State; that is to say, in a monarchy, upon the prince, and in an oligarchy, upon the State, which alone has the right to coin money, or to have it coined and to stamp a valuation upon it. (Grimaudet [1579] 1900, 11)

The case of the mixed moneys

Monetary sovereignty can be broken into three parts: (1) the right to determine what constitutes the unit of account—the commodity or token in which price lists are specified; (2) the right to determine the means of payment—legal tender for purposes of the discharge of debt; and (3) the right to produce money—or else determine the conditions under which it is to be produced by others.

Under a pure commodity money system, the relevance of monetary sovereignty was restricted to debtor-creditor problems of intertemporal exchange arising from changes in relative prices. In the ancient empires, this right was manifested in debt-reduction-cancellation decrees, which were not uncommon among the early empires.¹⁵

Monetary sovereignty took on its great importance in the age of overvalued money.¹⁶ Whether the overvalued money arose as a result of coinage, paper money, or bank money, the question of profit or seigniorage arose. In the transition from commodity money to overvalued money, the government had access to a great fiscal resource that it could either exercise itself or sell (e.g., in the issue of charters to banks) to the private sector. To overvalue a money, the state had to keep its supply restricted, by means of a monopoly, and thus arose the draconian penalties¹⁷ that became associated with the infringement of monetary laws. Infringement of monetary sovereignty was invariably classified with crimes of high treason.

The right of the sovereign to determine what constitutes legal tender

was unquestioned in Roman times and reaffirmed in the modern age. A landmark case in England arose in the wake of the Irish rebellion of 1598. To stretch the royal budget, Queen Elizabeth I issued a special “mixed” money that was forbidden in England—in short, occupation script:

Sometime before this proclamation, an Irish merchant had bought some goods for which he specifically promised to pay one hundred pounds in English sterling. He appeared in Dublin on the day fixed for payment and tendered one hundred pounds—in occupation coinage—in settlement of the debt. The creditor refused to take the debased money and sued for payment in sterling. However, in 1604, the court held for the debtor. (Dunne 1960, 3)

This landmark decision, referred to as the Case of the Mixed Moneys, became the law of the land.¹⁸ The importance of the decision is not so much in the great injustice associated with changing monetary rules ex post facto but rather the great importance of the institution of legal tender¹⁹ and the authority of the sovereign to determine what that legal tender is.

PART 2: SOVEREIGNTY AND MONETARY UNIONS

Part 2 will discuss explicitly monetary unions as they relate to the sovereignty issue. The first section will discuss different types of currency areas, reviewing the distinction between “true” and “pseudo” currency areas. The second section will identify key differences in policy and

legal sovereignty in three different types of monetary unions. The third section will discuss the choices made for EMU and its alternative that involve different commitments of sovereignty.

Types of currency areas

I have elsewhere defined a currency area (Mundell 1961) as a zone of fixed exchange rates and made a distinction between true and pseudo currency areas (Mundell 1997a, 1997b). A true currency area is a zone of fixed exchange rates in which the adjustment mechanism works because the balance of payments determines (or at least dominates) monetary policy. By contrast, in a pseudo currency area, monetary policy may be allocated to domestic objectives.

The anchored dollar system (often called the Bretton Woods arrangements because they were endorsed by the major countries at the Bretton Woods Conference in 1944) that extended from 1936, the date of the Tripartite Agreement, until 1971 was a pseudo currency area because reserve currency countries like the United States and Britain automatically sterilized the monetary impact of gold flows. Such sterilization was the exception rather than the rule under the international gold standard that existed between 1873 and 1914 and under the bimetallic system that characterized the international monetary system between 1815 and 1873.

The bimetallic system covering most of the world from 1815 to 1873, and also the gold bloc from 1874 to 1914, could be characterized as true

currency areas; there was both a commitment to parity and at least a semiautomatic system of adjustment: sterilization of the monetary impact of gold flows was the exception rather than the rule. Any departure from parity arising from an emergency would be corrected after the emergency passed, with the result that interest costs were kept down and speculation tended to be stabilizing.

The international gold standard that was restored between 1924 and 1933 was intended to be a true currency area, but its reconstruction was based on a fatal defect, and it had overtones of a pseudo currency area. The dollar had become the dominant currency in the system, and dollar prices ruled the roost. Unfortunately, because of wartime price increases that were not completely reversed in the 1921 deflation, the U.S. price level was still 40 percent higher than the prewar price level, shrinking drastically the gold base of the new system. This meant that gold was undervalued by 40 percent. When in the middle of the decade other countries restored their currencies at new exchange rates, they related them to dollar prices generalizing the undervaluation of gold and creating potential deflationary pressure. The United States, now the dominant financial power, had adopted a new policy of stabilizing the domestic price level in the 1920s. However, in the early 1930s, with deflation and the onset of the depression, followed by the depreciation of the pound sterling in 1931, the Federal Reserve shifted to tight money policies and

doomed the world economy to depression.

The anchored dollar standard that characterized the system from 1936 until 1971 was also a pseudo currency area. The responsibility for fixing the price of gold was left to the United States, and the responsibility for fixing exchange rate parities was left to the other countries. There was a commitment to parities, but it was by no means absolute: James Meade dubbed the arrangements an "adjustable peg system." Countries made an effort to maintain the parities, but they did not allow the self-adjusting monetary mechanism to operate as a matter of course. This period was characterized by a deterioration of the understanding of how a fixed exchange rate system was supposed to operate and it was not generally realized that the new arrangements constituted a "disequilibrium system."²⁰ Most important, the key-currency country and major reserve center, the United States, automatically sterilized the impact of gold flows on bank reserves and the money supply, undermining the global adjustment mechanism and shifting its burden to the rest of the world.²¹

The reformed fixed exchange rate system established at the Smithsonian Institution in December 1971 was similarly a pseudo currency area. It was a pure dollar standard in which the rate of inflation was determined by the Federal Reserve System acting to implement national rather than international interests. It broke down because U.S. monetary policies were too inflationary for the European countries.

Parts of the ERM of the European Monetary System were likewise a pseudo currency area. Exchange rates were fixed, but the balance of payments did not automatically determine monetary policies in every country; as a result, there were frequent exchange rate changes, and speculators won in every battle with the authorities. Exceptions were the "inner DM area" that included Austria and the Benelux countries.

The ERM system was defective also for the same reason that the Smithsonian system broke down: the policies of the center country collided with the interests of the other participants. The ERM became a DM area with monetary policy in the ERM zone determined by the Bundesbank, which had a legal mandate to pursue policies appropriate for Germany alone. When the unification shock created a major conflict between the interests of Germany and the other members of the ERM, the Bundesbank followed its legal mandate to protect internal balance in Germany, leaving other countries the option of staying with the mark and appreciating against the dollar and other third currencies or leaving the system. Italy and Britain left the system, Spain devalued within it, and France sought and obtained a transmogrification of the system in the form of drastically widened exchange rate margins.

There were two important differences between the breakup of the Smithsonian system in 1973 and the ERM system in 1992: One was that, *from the standpoint of its partners*, U.S. monetary policy in 1973 was excessively expansionary, whereas

Germany's in 1992 was excessively contractive. The other major difference was that, unlike the situation in 1973, when the international monetary system was falling apart amidst the atrophy of U.S. leadership, the ERM countries had signed an agreement to pursue monetary union by 1999, and Germany, in partnership with France, was still willing to lead. The flaw in the ERM arrangements was the absence of an agreed procedure for determining the common rate of inflation in the early stages of the integration process.

Under a true currency area, interest rates converge and speculation is stabilizing; adjustment takes place between countries just as it does between regions sharing a common currency. Under a pseudo currency area, on the other hand, interest rates diverge by an extent determined by expected exchange rate changes; speculation, based typically on a one-way option, is destabilizing. A pseudo currency area falls uncomfortably between two stools and has little to recommend it as an alternative to more fixed or more flexible systems.

Recent history is replete with stabilization programs using pegged exchange rates to break inflation but with little recognition that the stabilization policy will fail unless central bank credit is curbed. As a result of the failure of pseudo-stabilization policies in such countries as Argentina and Brazil in the 1980s and Mexico in the 1990s, many policy makers, not understanding the subtle distinction between pegged or pseudo-fixed and fixed exchange

rates, have rejected entirely the idea of fixed exchange rates.

Failure to make the necessary distinction between true and pseudo currency areas has frequently led policy makers to lump both types together under the umbrella of "fixed exchange rates." Even today, there is a surprisingly influential view that holds that, under fixed exchange rates, there is no mechanism for adjusting the balance of payments. Yet, these attacks on fixed exchange rates are only valid for the pseudo-fixed exchange rates of pseudo currency areas. They do not apply to true currency areas. A hard fixed exchange rate system does not break down because it contains within it a mechanism that automatically enforces adjustment.

If there were no mechanism for adjusting the balance of payments under fixed exchange rates—as it is often claimed by advocates of flexible rates—how does adjustment take place between regions sharing a single currency? This is a problem for those who reject fixed exchange rates between countries yet would abhor the thought of breaking up a common currency area like the United States. For a time, some economists argued that fixed exchange rates were workable between different regions of large countries like the United States only because of fiscal stabilizers, intergovernment transfers, and big government. One heard this even a few years ago from economists who argued that monetary union in Europe would lead to civil war! Yet, this neglects the fact that the United States has had a common currency since 1792 (leaving aside the four

years of the Civil War), long before the movement to big government that came in the wake of the two world wars. It also ignores the evidence of national and imperial monetary systems since coinage was invented. It also neglects the fact that the bimetallic and gold standard systems worked perfectly well, from the standpoint of international adjustment, at a time when there was a complete absence of international transfers or fiscal "stabilizers." The idea that balance of payments adjustment requires fiscal stabilizers or big government is the opposite of the truth.²²

In view of the skepticism that greets stabilization efforts, some countries have resorted to partial or complete currency board systems. Currency board systems fall into the category of true fixed exchange rate systems because they prohibit, or drastically curtail, purchases of domestic assets; the money supply therefore rises and falls with purchases and sales of foreign exchange reserves imposing the self-equilibrating adjustment of the balance of payments. A currency board system, like any truly fixed exchange rate system, is not subject to destabilizing speculation²³ and leads eventually to the same rate of inflation as that country whose currency is the partner in the fix.²⁴

A currency board system represents an ideal monetary arrangement for a small country economically close to a large one with a stable inflation rate if the country is willing and able to achieve the monetary and fiscal discipline without which any fixed exchange rate system would

founder. A successful currency board system closes the exchange rate margins, equates domestic reserve creation with changes in foreign exchange reserves, and rules out exchange rate changes. Spot and forward exchange rates against the partner currency are fixed and equal, and interest rates converge to those in the partner country.

In a pure currency board arrangement, central bank money is completely backed by foreign exchange reserves. Some of the seigniorage lost by this arrangement can be made up by investing the foreign exchange in interest-bearing liquid assets, such as U.S. Treasury Bills. But larger countries that lack full cover for central bank money may choose a currency-board arrangement that involves less than 100 percent cover.²⁵ A currency board that operated initially with 50 percent foreign exchange cover could still maintain 100 percent cover for *increments* in reserve money.

Countries with exchange rate arrangements as diverse as Hong Kong, Panama, Estonia, Luxembourg, Argentina, Bulgaria, Bosnia, and members of the euro zone have diverse fixed exchange rate arrangements that have in common a strong commitment to parity combined with a monetary policy that is committed to equilibrium in the balance of payments. However, the experiences of countries like Austria and the Netherlands, which have had fixed parities with the mark in conjunction with a commitment to systematic adjustment of monetary market conditions to preserve equilibrium in the balance of payments, have shown

that fixed exchange rate arrangements short of currency boards can also be credible. The essential distinction is not so much whether a country has a currency board system, whether its exchange margins are one-half of a percent or 2 percent, or whether its international reserves backing domestic notes are 50 percent or 100 percent. It is rather whether a country has committed itself to the parity and to an adjustment mechanism that ensures that economic conditions are maintained consistent with that parity.

Three approaches to Monetary Union

Let us suppose that two countries are considering different forms of monetary integration. There are three possibilities to consider:

1. fixed exchange rate systems in which two or more currencies are locked irrevocably together, and monetary policy is determined by the balance of payments;
2. a currency board regime combined with the creation of a parallel currency and a supranational central bank in which
 - the parallel currency is *not* legal tender,
 - the parallel currency *is* legal tender along with the national currencies, and
 - the parallel currency is the *sole* legal tender; and
3. a supranational central bank and a legal tender common currency that completely replaces national currencies.

I shall discuss each of these in turn. (1) Fixed exchange rate systems (including currency board systems) often result from asymmetrical sizes of the countries. One country is large and, with a stable and low inflation rate, is looked on as a good monetary leader. In this case, a natural assignment of instruments to targets results: the large country determines the inflation rate of the area, and the small country or countries fix the exchange rate (with or without the cooperation of the large country).

If the two countries are of roughly equal size, a hegemonic relationship is unlikely. Both parties would contribute to the fixing. One possibility is for each country to defend its own currency when it is weak; this is a potentially deflationary solution because intervention reduces aggregate reserves. Alternatively, each country could defend the partner's currency when it is weak—a potentially inflationary solution because intervention adds to reserves. Whichever method of fixing is adopted, joint decision making will be required to determine the common monetary policy and the rate of inflation of the area as a whole. Although this policy could be determined by fixed rules regarding annual increments of domestic assets, it would more probably be facilitated by a formal institution designated as the monetary authority. For small countries forming a monetary union, a good solution to the “*n*th” or “redundancy” problem would be to fix the joint currency to a stable external currency bloc.

(2). Consider next the case of a currency board combined with a parallel currency (G-currency) and a group central bank (GCB). Suppose that the currency is (like the ECU) a weighted average of the national currencies and that it is to be used as the focus of intervention. National central banks cease their purchases of domestic assets and lock exchange rates with each other by fixing the national currency to the central currency. Monetary expansion in the group is determined by asset expansion of the GCB over and above any purchases of the national currencies.

In this setup, the central currency and the national currencies are, except for calculation purposes, close substitutes. The degree to which they are substitutes, however, depends on their legal tender status. There are three approaches to consider in ascending order of proximity to true monetary union:

1. The G-currency is not legal tender. In this case, the demand for G-currency would depend on its convertibility into the other currencies; it is unlikely that the G-currency would become an important unit of account, and it is difficult to see how this approach would provide the momentum needed for a unified currency system.

2. The G-currency is made legal tender along with the other national currencies. In this case, the demand for the G-currency would grow over time as the countries become familiarized with it, and, if it is also used as an invoice currency, it could in the long run become an important share

in the total legal-tender money supply.

3. The G-currency enters as legal tender, while the national currencies are scheduled to be phased out as legal tender. The national central banks cease their purchases of domestic assets and lock exchange rates with each other by fixing the national currency to the central currency. The GCB opens a window at which it stands willing to buy (from commercial banks) national currencies in exchange for the G-currency. Monetary expansion in the group is determined by asset expansion of the GCB over and above any purchases of the national currencies.

After a certain period of time—three years in the case of the EMU—the national currencies will cease to be complete legal tender. Because this represents a conspicuous shift of sovereignty, the process may have to be accomplished by stages.²⁶ But whatever the progression, the recognition that national currencies will cease to be complete legal tender after a date will greatly strengthen the use of the G-currency as unit of quotation and contract for deferred payments. Of the three approaches thus far considered, this is the route to monetary union, but it is also flexible as to the timing for national currencies to be phased out.

(3). Consider now the case where national currencies are scrapped in exchange for the G-currency and the ECB becomes a full-fledged independent monetary authority. Exchange rates are locked, national central banks cease purchases of domestic assets, and the ECB stands

willing to exchange all national currencies for G-currency in addition to carrying out the monetary policy of the group with open market operations in community assets or foreign exchange.

This sudden-death approach—adopted by the EU—is the most direct approach to monetary union. All of a sudden, national currencies are demonetized, and a supranational authority conducts monetary policy in what appears to be an irrevocable monetary union. Through this approach, a country relinquishes national sovereignty over money in return for a share in the supranational sovereignty. This approach has the merit that the location of the sovereignty is unambiguous, and it creates the impression—whether justified or not—that the transformation is irrevocable. Its disadvantage is that the sacrifice of the national currency may dissuade countries to take the final step. The Delors Report approach, enshrined in the Maastricht Treaty, was a colossal gamble that might not have worked out had it not been for the political pressures imposed by the felt need to lock a united Germany into a European framework. Even so, because EMU came close to not working, it is not necessarily the right model for other monetary unions.

An alternative approach to monetary union

Abolition of national currencies is not a prerequisite for a common monetary policy. This was recognized in both the Werner Report of the early 1970s and the Delors Report of the late 1980s, which proposed three

necessary conditions: (1) the total convertibility of currencies, (2) the complete liberalization of capital flows and full integration of financial markets, and (3) an irrevocable locking of exchange rates. If these three conditions were achieved, the European Community or Union would function as if it were a single monetary area (see Kenen 1995, 14), except, of course, for the information economies of a single unit of account. Although the Delors Report recommended a single currency, it was recognized as the preferred course, not a prerequisite.

To be sure, these three conditions leave unclear the nature of the mechanism for controlling the monetary policy of the monetary area. Suppose all national currencies are fixed to one another with no margins. If the fix is irrevocable, speculation would make all forward rates equal to spot rates, and interest rates on credit instruments with the same non-currency risk would converge despite being denominated in different currencies.

Nevertheless, this arrangement leaves open-ended both the nature of the mechanism for fixing exchange rates and the mechanism for ensuring appropriate monetary growth in the area as a whole. A requirement that each country buy and sell its partners' currencies at fixed prices forever would be sufficient to keep spot and forward exchange rates fixed, but it would not guarantee either adequate monetary growth or price stability. If national central banks had no restrictions on the purchase of domestic assets, competition for seigniorage could lead to hyper-

inflation. A monetary union without a centralization of decision making with respect to monetary policy would quickly fail. To these three provisions must therefore be added a fourth: the centralization of monetary policy in an institution for determining the monetary policy of the area as a whole.

Collective management of monetary policy in a framework of, say, n currencies is by no means simple or automatic. It is a great help initially to have a dominant currency that becomes the unit of account of the union and the focus for monetary discipline of the others. Suppose then that one existing currency is designated as the "pivot"²⁷ and that all other central banks fix exchange rates to that pivot currency, at the same time eschewing any further purchases of domestic assets. Exchange rates would then be fixed, and monetary growth would depend entirely on the purchase of assets by the designated pivot central bank, which would now have complete control over monetary policy.

This approach to monetary union is less draconian than the sudden-death approach recommended in the Delors Report and adopted by the EMU. Legal sovereignty would be retained even while policy sovereignty is given up. In return, the other countries would get automaticity of monetary policy and the inflation rate and interest rate of the dollar area. There would be no coercive phasing out of cherished national currencies except insofar as countries decided to take that more irrevocable step.

The transactions and leadership costs in forming monetary unions are greatly reduced by the use of a "living" currency as a safeguard against mistakes made by inexperienced monetary doctors. This was the mechanism I suggested in my plan for a European currency presented for the first time in December 1969.²⁸ It is more flexible than the Maastricht approach because it does not involve the same commitment of legal sovereignty. National currencies, far from being suddenly scrapped, would continue in existence while habit and efficiency are allowing the euro to take over.

The approach to monetary union through the use of a national currency did not work in Europe, however, because of several relevant objections: First, such a solution would have involved, at least initially, German rather than European control of monetary policy, with German rather than European inflation preferences. This was indeed the problem with the exchange rate mechanism of the European Monetary System, which, in the 1980s, gravitated to a DM area. It could have been mitigated by the introduction of non-German directors in the Bundesbank, but the political transactions costs would have defied solution.

Second, the mark was a national symbol peculiar to Germany.²⁹ Non-Germans would have to change their currency, while Germans would have the benefit of continuing to use their own currency. Of course, the extra benefit to Germany would be restricted to the transition period. The problem in the transition period

could be mitigated by putting an overstamp on marks, designating them as Europeanized marks. After the transition, all member countries would use the new currency, the euro, with European symbols, so the end result would be the same. Nevertheless, it must be admitted that the asymmetric prestige element involved in the transition would have been hard to swallow in France.

It should be recognized, however, that the European use of the mark could have been looked on as a sacrifice for Germany too. Whereas the other countries lose policy sovereignty, Germany, while retaining a high measure of policy sovereignty, would, in effect, lose legal sovereignty as the mark-euro became the currency of the EU rather than the nation-state of Germany.

Third, the use of the mark would confer on Germans the great benefit of not having to change their unit of account and learn a new system of reckoning. In every other country, citizens would have to go through the agonizing, if once and for all, mental process of recalculating prices. Germany would be specially favored by the continued use of its national unit of account as the euro.

Against these costs, however, there are other considerations. First, the cost to the other countries of changing units of account would not be harder in using the mark-euro than it would be in using the ECU-euro; use of the mark is a benefit to Germany, not a cost to the others. Because the mark is the most important European currency in most EU members' exchange markets, exchange rates on the mark are more

familiar than any other exchange rate (except the dollar). By contrast, the ECU exchange rate was not well known at all to the general public. Second, the fact that German citizens will not have to change their unit of account can be looked on as a benefit not a cost because it would give Germans some compensation for their sacrifice of the most important currency in Europe and the currency that, since 1948, has had one of the best inflation records in the world. From a narrow economic perspective, at least, Germany had the most to risk and the least to gain by scrapping the mark for the euro.³⁰ Third, the identification of the euro with the mark would fit in more conveniently with the rest of the international monetary system, where the three most important currencies quoted are the dollar, the mark, and the yen. The euro-mark, being a known commodity externally, would allow the euro to fit into the international monetary system with the least disruption.

These factors might have lent support to the use of the mark as the foundation for the euro. The successful launching of the euro in January 1999 makes some of the concerns raised above irrelevant. It now appears that the birthing difficulties faced by the launching of a new currency will be overcome and that EMU will be a permanent feature of the international monetary landscape in this century. Nevertheless, it might be a mistake to believe that the success of the euro would carry over to other monetary unions. It is worth therefore keeping the approach that seemed appropriate to

me three decades ago alive as an option in other cases in which political integration is not on the agenda.

*Application to other
currency areas*

What has worked for Europe is not necessarily the best model for other areas considering closer monetary integration or even monetary union. It generally can be assumed that the creation of the euro will create a huge monetary area in Europe that will be on the same scale of importance as the dollar and the yen and, moreover, that it is likely to be an expanding monetary area increasing in importance over time. The creation of the euro cannot fail to have a "demonstration effect" leading to the formation of currency areas elsewhere. There are at least two reasons for this. One is the effect on economic ideas. Prior to 1971, the dominant international paradigm was an international monetary system based on fixed exchange rates anchored, by at least one country, to one or both of the precious metals. After this system broke down in August 1971, flexible exchange rates became the fashion, and any attempt to fix exchange rates in currency areas or by currency boards was looked on in horror by the international monetary authorities, partly on the spurious grounds that a system of fixed exchange rates lacks a feasible mechanism of adjustment. But when eleven (now twelve) countries in Europe decide to not only have absolutely fixed exchange rates but also scrap their currencies to boot, it requires a reappraisal of theories and policies.

The other reason is that the creation of a huge and expanding monetary bloc in Europe will lead competing areas to reconsider their international currency arrangements. As the European monetary area expands into Central and Eastern Europe, the coastal states of the Mediterranean, and Africa, it seems likely that there will be renewed interest in the idea of monetary integration in the Western Hemisphere and the Pacific Area. Bigness begets bigness.

Our interest here is not in precise proposals but in the lessons of monetary integration from our study of sovereignty and the example set by Europe. Most other large areas lack the political and economic prerequisites for a single-currency area but would nevertheless benefit from the economic benefits of large and stable currency areas. Let us therefore consider the possibility of the creation of an international dollar area to include countries outside the United States.

Suppose, for example, a group of countries associated with the United States—in the Western Hemisphere or elsewhere—decide to integrate their monetary policies with that of the United States but without, at least initially, abolishing their national currencies.³¹ Let us assume that the dollar is chosen as the lead currency and that the U.S. Federal Reserve³² is designated as the monetary leader. All other countries would fix their currencies to the dollar at specified parities and the other national central banks cease all purchases of domestic assets.³³ Monetary growth in the currency area as a

whole would then depend only on the balance sheet of the Federal Reserve System. Money supplies in the other countries would increase through surpluses in their balances of payments. With absolutely fixed exchange rates (possibly guaranteed by the U.S. Treasury) interest rates in the entire area, apart from any default risk or differential tax rates, would converge. The other countries would get more or less the same rate of inflation as the United States.

Thus far, such an arrangement would be asymmetric with policy (but not legal) sovereignty in the United States. At the same time, the United States would capture the seigniorage from monetary growth. If such an integrated monetary arrangement came into being, it would be useful to establish a monetary institution for the area as a whole that would have an input into the policy decisions regarding the inflation (or exchange rate) target for the area as a whole and to make provisions for a fairer distribution of seigniorage. Within such a framework, it would be possible to make decisions, if applicable, as to whether the dominant currency should be over stamped or redesigned, whether it would be desirable to phase out some or all of the other currencies, and whether it would be desirable to engage in operations in the external exchange markets to mitigate volatility of the dollar against other major currencies.

A concluding comment

Members of the European Community signed the Treaty of Maastricht that formed the EU and developed a plan for the EMU to

begin in 1999. This plan involved the sudden sacrifice of policy and legal sovereignty to the central government in which, of course, each member shares control. It remains to be seen, however, whether, in the final analysis, many countries in different situations would be willing to completely scrap their legal sovereignty in the way prescribed.

The choice made at the time of Maastricht will remain one of the most intriguing questions for historians. That the Maastricht Plan followed the Delors Report is well known. But the Delors Report said (to repeat), "The adoption of a *single currency*, while not strictly necessary for the creation of a monetary union . . . would clearly demonstrate the irreversibility of the . . . union" The replacement of national currencies by a single currency should therefore take place as soon as possible after the locking of currencies" (my emphasis). The national currencies are scheduled to disappear by the year 2002, three years after locking currencies.

There is no doubt that a single-currency monetary area offers important advantages over a monetary area in which multiple currencies remain. The single currency imposes quick adjustment day in and day out and does not leave time for large imbalances to build up. It rules out speculation about intraunion exchange rate changes. It is also true that the single-currency approach is more difficult to reverse. Moreover, transactions costs and information costs of trade in a single-currency area are much less than in a multicurrency union. These great

advantages of the Delors-Maastricht approach must be acknowledged.

As it is turning out, the approach adopted seems to have had unparalleled success. It has shown that some of the leading countries of Europe will have lost the "barbarism" noted by John Stuart Mill ([1848] 1909), "that almost all independent countries choose to assert their nationality by having, to their own inconvenience and that of their neighbours, a peculiar currency of their own." It is quite another question, however, whether the European model will travel well. Without a complementary development of deeper political integration, other emerging currency areas would be better advised to exploit the advantages of credible currency-board-like arrangements centered around a hegemonic leader or else a parallel-currency arrangement linked firmly to one or more of the largest currency area.

Notes

1. Locke, however, would have insisted that money is a quantity of silver.
2. That a country's "power" or "clout" in the international system is increased by the use of its currency, as a key currency can be readily illustrated by the weights of the three largest countries in making up the International Monetary Fund (IMF) unit of account, the SDR. The United States with a GDP of 24 percent of the world economy has a weight of 40 percent; Germany, with a GDP of less than 8 percent of the world economy, has a weight of 21 percent; and Japan, with a GDP of 14 percent of the world economy, has a weight of 17 percent. The ratio of SDR weight to GDP share in the world economy is 2.6 for Germany, 1.6 for the United States, and 1.2 for Japan. These weights were determined before 1 January 1991, when several large countries, including France, the United Kingdom, and Italy, were tied in effect, through the Exchange Rate

Mechanism (ERM), to the DM; the IMF would probably justify Germany's excessive weight in the SDR on the grounds that the clout of the mark was much greater before the partial breakup of the system in the crisis of September 1992. The SDR was modified to allow for the euro beginning on 1 January 1999, when the new weights were 39 percent for the U.S. dollar, 32 percent for the euro (replacing 21 percent for the DM and 11 percent for the French franc), 18 percent for the Japanese yen, and 11 percent for the pound sterling. Two years later, on 1 January 2001, new weights were established in the following amounts: 45 percent for the U.S. dollar, 29 percent for the euro, 15 percent for the Japanese yen, and 11 percent for the pound sterling.

3. This is as it should be because large countries have more to lose and less to gain by monetary union.

4. A few of the tiny countries may be exceptions. Panama and Liberia have national coinages but use the U.S. paper dollar for the bulk of their transactions. Luxembourg has been a passive member of a monetary union with Belgium since 1924 and thus has transferred policy sovereignty while retaining legal sovereignty.

5. Like all "valid" theories, Bodin's was only partly correct. At the time Bodin was writing (middle of the 1560s), prices measured in metallic units had hardly changed at all; Jehan Cherruyt de Malestroict was correct in attributing the rise in French prices to the debasement of the unit of account. Gold and silver prices did rise substantially, however, between 1565 and 1594; using English prices (where Elizabeth I's unit of account remained constant) as a measure, prices rose 50 percent between 1565 and 1593. Bodin's theory that the price increases were due to the influx of silver from Spanish America was not correct at the time he wrote, but it was correct for future price increases. His argument was timelier when he repeated it in 1576 in his major work, *The Six Books of the Republic*.

6. Charles Goodhart goes even further in emphasizing the implications of a single currency for the need for a strong centralized fiscal authority:

It is, however, unrealistic to discuss "optimal" currency areas without giving explicit consideration to the close links between control of the currency and na-

tional sovereignty . . . the right to issue legal-tender currency is one of the most important, and prized, aspects of independent, sovereign power. Monetary independence entails the power also to change the exchange rate of the country vis-à-vis the currencies of other areas. If, say, British Columbia, or Florida, or Scotland, were given a separate Central Bank, a separate currency and the power to vary its exchange rate vis-à-vis the Canadian dollar, or US dollar or English pound, how much would be, or could be, left of national union between the two areas? Not only monetary policy, common currencies and integrated markets would have gone, but it is also extremely difficult to see how it would be possible to maintain any coherent common fiscal policy between the two areas. . . .

I have argued both that a single-currency area requires a strong, centralized fiscal authority, ready and able to ease regional adjustment problems, and also that it will be difficult to establish any effective centralized fiscal authority covering areas with independent, separate currencies (i.e., both that a single-currency area cannot cover several, independent, uncoordinated fiscal areas, and the converse that an integrated fiscal area cannot extend over several independent currency areas).

Goodhart goes on to note, however, that the 1880-1914 gold standard constitutes an exception to the rule.

7. Cicero, however, in his *Treatise on Divination*, says it was due to a warning voice that issued from the enclosure when Rome was besieged by Gallic Senones. See Grimaudet ([1579] 1900, 14).

8. The gold coin issued in 1257 by Henry III was an imitation of an Arab maravedi and was almost immediately withdrawn.

9. More than a decade before the bull was issued, Edward III of England had already issued his gold nobles, under the authority of his position as vicar-general of the Holy Roman Empire.

10. England would not finally achieve spiritual sovereignty until 1532, when the final breach with Rome over the annulment of Henry VIII's marriage with Catherine of

Aragon was decided in an English court; thereafter, the Catholic Church in England was a national institution.

11. What came to be called the "trial of the pix" was instituted as a test of the fineness of coins submitted to the Exchequer for payments of taxes or debt. The Exchequer's problem was to test the adequacy of the coins received. To allow payments by tale would invite bad coins, while to test every coin was clearly impossible. The first precaution taken was to exact from the debtors an extra sixpence with each pound to make up a presumed shortness of weight; this was payment *ad scalum*. This was found not to be enough, so each counted pound was weighed, and the debtor could either make up the difference or pay an additional shilling for any shortfall; this was payment *ad pensum*. These precautions protected against the lightness of the coinage, but they were of course no protection against debased money. In Henry I's reign, Roger of Salisbury introduced a new plan of "blanching" money, that is, testing the fineness (or whiteness) of it. When any payment was made, forty-four shillings' worth of coin was selected at random out of the heap, weighed, and handed to the Master of the Assays, who carried off a pound's weight of it and, accompanied by the sheriff and his own subordinates, proceeded to the furnace to make the assay. The coins were melted and the dross skimmed off until pure silver alone remained. So long as the surface of the melted mass was clouded, there was still dross to be removed, but when the surface was bright and mirror-like, the impurity was gone, and nothing but silver remained. Both sides watched the operation, the sheriff anxious to prevent any waste of silver, the Exchequer officials careful to see that all dross was removed. The assayer had an interest in being accurate, for if either side challenged the assay, he had to make a second, for which he received no fee. When the operation was complete the mass was weighed and if it was short of its proper weight, the sheriff had to cast in enough pence to turn the scale. These pence were counted, and the sheriff had to pay that number on each pound of his total "form" as a quittance. See Warner (1907, 72-73).

12. During the Roman social wars, around 91 B.C., Livius Drusus, a tribune of the people, authorized the coinage of silver denarii, alloyed with one-eighth part copper, lowering

the established standard. Later, copper pieces were plated to resemble silver. The discontent produced by this law induced the College of Praetors (84 B.C.) to restore the silver money to the ancient standard by instituting what would later be called the "trial of the pyx." Sylla was so enraged by this interference with the coinage that he annulled the decree of the praetors; proscribed their leader, Marius Gracidianus, as a traitor; and handed him over to the ferocious Cataline, who "slew him barbarously" (Del Mar, 123).

13. Dante produced a colorful account of the passions aroused by monetary crimes in the Middle Ages in the case of Master Adam, who adulterated the florin:

And there I saw another husk of sin,
who, had his legs been trimmed away at
the groin,
would have looked for all the world like a
mandolin . . .

He strained his lips apart and thrust
them forward
the way a sick man, feverish with thirst,
curls one lip toward the china and the
other upward.

"O you exempt from every punishment
of this grim world (I know not why)," he
cried,

"look well upon the misery and
debasement
of him who was Master Adam . . .
Inflexible Justice that has forked and
spread
my soul like hay, to search it the more
closely,
finds in the country where my guilt was
bred

this increase of my grief; for there I
learned,
there in Romena, to stamp the Baptist's
imagine
our alloyed gold—till I was bound and
burned . . .

Because of them I lie here in this pigpen;
it was they persuaded me to stamp the
florins

with three carats of alloy.

14. Duc d'Alençon.

15. Saggs (1955) wrote the following:

One facet of this [the king Lipit-Ishtar's sense of social justice] was his claim that he had "made justice." This claim, not unusual among old Babylonian rul-

ers, referred to the cancellation by royal decree of certain debts, such as any which had forced free people to sell themselves or their families into slavery. (P. 97)

Debt cancellations occurred from time to time in all the ancient empires, including the Roman; Julius Caesar, as consul in 48 B.C., eliminated interest already paid on debts prosecuted in magistrate's court, in effect making the loan interest free.

16. In his *Treatise*, Keynes (1930, chap. 1) used the term *representative money* to mean what I mean by overvalued money.

17. The following account related by Nussbaum (1950) illustrated the situation in France in the fifteenth century:

Among the numerous trials of counterfeiters in the Middle Ages, records of which have been preserved for us in the public archives, certainly one of the most moving is that of the goldsmith Louis Secretain, condemned at Tours, 1486, to be boiled and hanged after having been convicted of the crime of counterfeiting. On the day of the punishment, Secretain was led from the prison to Foire-le-Roi Square, in Tours, where a huge caldron filled with water had been set upon a blazing fire. The unfortunate one was bound by the executioner and thrown into the caldron; but the water had not yet reached the boiling point and in his struggles the victim disengaged himself from his fetters. He reappeared on the surface of the water holding out to the crowd, which was speechless with pity, his suppliant arms and crying out "Jesus! Mercy!" The executioner, armed with an iron fork, smote him on the head several times to make him sink again to the bottom of the vat. The crowd and the judges, themselves exasperated, cried at last: "Death to the executioner!" An affray ensued in which the executioner was killed and Secretain rescued. The half-cooked unfortunate one was carried into a neighboring church where he found refuge until the king's pardon was brought at last, returning him his freedom.

18. Dunne (1960, 3). The landmark decision read as follows:

as the king by his prerogative may make money of what matter and form he pleases and establish the standard of it, so he may change his money in substance and impression, and enhance or debase the value of it or entirely decay or annul it.

Moreover, "although . . . at the time of contract . . . pure money was current in the kingdom . . . yet mixed money being established . . . before the day of payment . . . may be tendered . . . and the obligee is bound to accept it."

19. "Legal tender" is a term of the courtroom; a plea of legal tender is what lawyers call a "plea of avoidance," an admission whose damaging effect is immediately nullified by bringing in some additional factors. Thus, a defendant charged with debt might admit the borrowing and plead "legal tender"—namely, that at some previous time he physically had offered his creditor money that the law deemed acceptable for debt payments and had been refused. Such a suit, if proved in an early English tribunal, ended the creditor's suit then and there. The creditor's total loss was "accounted his own folly that he had refused the money when a lawful tender of it was made him." See Dunne (1960, 4).

20. See Mundell (1961) for an analysis of the disequilibrium system.

21. This is not to say that the alternative policy of allowing U.S. gold losses in the 1950s and 1960s to contract the U.S. monetary policy would have been desirable. Because of wartime and postwar inflation, gold in the 1950s again had become undervalued, and strict adherence to the "discipline" would have brought on another deflation and depression.

22. The theory that international adjustment is made easier by such "built-in-stabilizers" as high marginal tax rates is a colossal fallacy. On the contrary, the phenomenal increases both in marginal tax rates and in the ratios of government expenditure to GDP in all the European countries has clogged the arteries of commerce, raised unemployment, and reduced mobility, making international adjustment more rather than less difficult.

23. There are, of course, many different types of currency boards, differences based primarily on the size of exchange rate margins, the reserve ratio (which may be less or greater than 100 percent), and the legislative procedure for changing either the exchange rate or

the target currency. See Hanke and Schuler (1994) for a good recent discussion of currency boards.

24. It should be understood that when one country fixes its currency to another as in a currency board regime, the two members of the currency area will enjoy the same rate of inflation, provided the index of inflation is the same in both countries. It does not mean, however, that national price indexes will record the same rate of increase inasmuch as these have different weights. Since 1983, for example, when Hong Kong inaugurated its currency board with the U.S. dollar, the index of inflation has consistently been higher than that in the United States to the extent that the "real exchange rate" of the Hong Kong dollar has appreciated substantially against the U.S. dollar. This appreciation can be explained partly by an initial undervaluation of the Hong Kong dollar, requiring a correction, and partly by rapid productivity growth in the traded-goods industry.

25. Some small countries find it advisable to maintain more than 100 percent reserves so that the excess can be used as cover for the central bank's role (if it is maintained) as lender of last resort to the commercial banking sector. Several writers have made the mistake of asserting that currency board systems are flawed because of the risks to the commercial banking sector. However, it is not a currency board system as such that presents the danger to the commercial banks as much as the impact of stabilization policies of any kind, as real interest rates rise and the quality of commercial bank assets fall.

26. Phasing out the national currencies as legal tender could be done in stages, making it legal tender for small but not large transactions.

27. *Pivot currency* is one of the useful terms first used by Susan Strange in the 1960s.

28. "A Case for a European Currency" (Mundell 1969) was first presented at an American Management Association Conference in New York in December 1969; a revised version of this paper with the title "A Plan for a European Currency" was presented at the Optimum Currency Areas Conference in Madrid in March 1970 and published in Mundell (1973). In 1969 and 1970, I suggested the use during the transition period of the pound as

the pivot, with its key position in the London foreign exchange market. It was soon apparent, however, that the mark had superseded the pound as the second most important currency in the world, and indeed the mark did later become the pivot in the exchange rate mechanism of the European Monetary System.

29. The mark did not originate, however, as a German currency. It was an ancient Norse unit of money and weight that came to be widely used all over western and especially northern Europe. The Norse coinage system consisted of stycas, scats, and oras, such that 8 stycas = 1 scat and 8 scats = 1 ora. Scats and oras had the same weight, so it appeared that the bimetallic ratio was intended to be 8:1. According to one plausible theory, the mark came to be the name for the amount of silver that exchanged for a Roman libra composed of five Roman gold pieces, that is, aurei and later bezants. The British pound of 240 silver pieces called pence was likewise the amount of gold that exchanged for one pound of 240 silver pence was likewise the amount of silver that exchanged for one Roman pound (pondus or libra) of five aurei. But when the British bimetallic ratio was brought into harmony with the Roman ratio of 12:1, for the first time in the third coinage reform of Alfred the Great (between AD 878 and 899), the pound meant 12 ounces, whereas the mark meant 8 ounces. When bimetallic ratios became unified the mark came to mean 160 pennies or 14 2/3 shillings.

30. I have elsewhere argued (e.g., Mundell 1994) that dominant countries have the least to gain and the most to lose by giving up monetary sovereignty to a supranational institution, and that is the reason why, historically, the dominant powers have always resisted international monetary reform. This was true of Britain in the nineteenth century, of the United States at Paris in 1933, and at Bretton Woods in 1944, and it has underlay the German insistence on convergence before locking exchange rates, instead of locking exchange rates as a route to convergence. If Chancellor Kohl's enthusiasm for monetary and even political union is seen as an exception to this theory, it could be pointed out that Kohl's position can be explained completely by his commitment to Europe on the eve of German monetary unification.

31. For a proposal for a North American Monetary Union based on a single currency, the "Amero," see Grubel (1999).

32. The Treasury is the senior monetary institution in control of exchange rates in the United States (e.g., the Secretary of the Treasury is the "governor" of the IMF for the United States, and the Chairman of the Federal Reserve System is its alternate governor), and the role of the Central Bank as the institution representing the United States in an international monetary integration framework would have to be, at least partly, as a designee of the Treasury.

33. An alternative arrangement would allow for a specified increase in domestic assets with the rate of growth or the purchase periodically of "fiduciary assets" to reduce the proportion of foreign assets in the central bank's balance sheet.

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