1 The Roads to the Euro: A Historical Overview

Maastricht is the small town of the Netherlands where, in 1992, the member states of the European Union (EU) signed the Treaty that created the euro and its central bank. Rather than a sudden decision, the euro was the result of a long-term development that started in the aftermath of World War II.

After experiencing political oppression and war in the first half of the twentieth century, Europe undertook to build a new order for peace, freedom, and prosperity. Despite its predominantly economic content, the European Union is an eminently political construct. Even readers primarily interested in economics would hardly understand the euro if they ignored its political dimension.

In reality, the Treaty of Maastricht and its implementation in the 1990s represent the meeting point of three, not just one, different roads, going through political, economic, and central banking fields. Although they have influenced each other significantly, movement along each road was, to a great extent, driven by an inner logic specific to each field. The overall development was thus the outcome of a complex interaction.

To highlight this complex evolution it is necessary to follow each road separately, while explaining the key interactions. Sections 1.1 to 1.3 are devoted to political developments, section 1.4 to the economic ones, section 1.5 to central banking. Table 1.1 is a recapitulation of the overall process.

1.1 Politics: From War to Sweet Commerce

The intellectual seeds of a politically united Europe were laid down by enlightened figures of the early 1940s, when mutual hatred seemed the only bond between the European peoples. Persons like Jean Monnet, Altiero Spinelli, Jacques Maritain, Luigi Einaudi, and Helmut von Moltke (to quote just some names) searched what kind of arrangements could put

Table 1.1
General chronology

1948, May	Congress of The Hague
1951, April	Treaty of Paris signed, establishing the European Coal and Steel Community
1952, April	Treaty signed, establishing the European Defence Community
1954, August	French National Assembly fails to ratify the European Defence Community Treaty
1957, March	Treaty of Rome signed, establishing the European Economic Community (EEC)
1958, January	Start of the EEC
1968, July	Customs union completed
1971, August	End of the Bretton Woods system with declaration of the inconvertibility of the US dollar into gold
1972, March	Introduction of the "snake," an exchange rate agreement between five European countries (Belgium, France, Germany, Italy, the Netherlands)
1973, January	The United Kingdom, Denmark, and Ireland become members of the European Communities
1979, March	Start of the European Monetary System (EMS)
1979, June	First elections for the European Parliament by direct universal suffrage
1981, January	Greece becomes a member of the European Communities
1986, January	Portugal and Spain become members of the European Communities
1986, February	Single European Act signed, which provides for the completion of the internal market by 1992
1988, June	European Council in Hannover, where a Committee, chaired by Jacques Delors, is charged with the task of studying and proposing stages leading toward an economic and monetary union
1989, April	Delors Report presented, which gives a blueprint for Economic and Monetary Union
1990, October	Reunification of Germany
1992, February	Maastricht Treaty signed, establishing the European Union
1993, January	Single European Market inaugurated
1994, January	European Monetary Institute (EMI) established
1995, January	Austria, Finland, and Sweden join the European Union
1997, October	Treaty of Amsterdam signed
1998, June	Establishment of the European Central Bank
1999, January	On January 1, the euro introduced as the official currency in eleven member states (Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, and Finland)
2001, January	Adoption of the euro by Greece

2001, February	Treaty of Nice signed, amending the Treaty on European Union and the Treaties establishing the European Communities
2002, January	Introduction of the euro bank notes and coins
2002, February	Convention on the Future of Europe opens in Brussels
2003, April	Accession Treaty signed by the existing fifteen member states and the ten acceding countries (the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia, and Slovakia)
2003, October	Intergovernmental Conference (IGC) convened to discuss and agree on a new treaty for a Constitution for Europe
2004, May	The Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia, and Slovakia become members of the European Union

an end to centuries of wars, interrupted only by precarious truces based on a balance of power.[1] Those precursors of history concluded that a lasting peace could only be established by creating a political order superior to the, as yet unbounded, power of nation-states.

"Never again a war among us" was the motto of Robert Schuman, Konrad Adenauer, and Alcide De Gasperi, the three political leaders of France, Germany, and Italy who, in the late 1940s and early 1950s, undertook to unite Europe.[2] The first step, proposed by the Frenchman Jean Monnet, was to pool and jointly manage coal and steel, the two strategically crucial resources for the control of which three wars had been fought between 1870 and 1945. In 1951 six countries (France, Germany, Italy, Belgium, the Netherlands, and Luxembourg) implemented Monnet's idea by entrusting a common institution—the European Coal and Steel Community (ECSC)—with the governance of coal and steel production. For the first time European countries voluntarily agreed to forgo their sovereignty in a strategically important, albeit limited, field. The model for further projects had been set.

The next attempt, directly addressing the heart of state sovereignty, was in the field of defense. In 1952 the six ECSC countries stipulated a treaty to create a European Defence Community (EDC), with a single European army under a unified military and political command. In France, however, one of the signatory countries, nationalist sentiments were still strong in the political establishment and in a segment of the public opinion. Eventually the French Parliament denied ratification and the EDC Treaty never came into force.

Having failed on defense, attempts at molding a politically united Europe reverted to the economic field. In 1957 a third treaty was signed in Rome and founded a European Economic Community (EEC). The chief objective was to create a common market where goods, services, capital, and persons could freely circulate under common rules and institutions.[3]

Peace, the idea behind the Coal and Steel Community, was further pursued through tighter economic interdependence. Sweet commerce would replace barbarian bellicosity. As the French political philosopher Charles de Montesquieu had put it in the mid seventeenth century, "commerce cures destructive prejudices. . . . It polishes and softens barbarous mores. The natural effect of commerce is to lead to peace."[4] The founders indeed premised the new Treaty on building powerful common interests among European people with political union as the eventual result.[5]

The Treaty of Rome became the basis of the integration process in the four decades that followed its coming into force, and it still represents the most important founding act of a united Europe, almost the equivalent of a constitutional charter. Based on it are the state-like institutions that today rule the European Union, mainly from Brussels.[6] The creation of a unified market was basically an implementation of the provisions of the Treaty by these institutions.

I should note again that, although the integration process cornered primarily the economic field, its motivation and guidance were genuinely political.[7]

Over the years the advances, pauses, and temporary retreats in the implementation of the Treaty of Rome were chiefly determined by political factors. Between 1958 and 1965 the momentum remained very strong, despite political change in France, where in 1958 the weak and politically unstable IV Republic gave way to the more robust and nationalistic presidential system of the V Republic, led by Charles de Gaulle.[8] This was due to the impulse coming from the recent adoption of the Treaty and from very pro-European government leaders in Germany, Italy, and the Benelux.

Rapid progress was accomplished. The institutions of the EEC—the Commission, the Council of Ministers, the Parliament, and the Court of Justice—were set up. The method for implementing the common market was established. This consisted in adopting, economic sector by sector, legally binding European legislation, whose force was superior to national legislation, just as US federal law prevails over state law. Thus obstacles to the freedom of trade were removed and key national economic norms harmonized, mainly for manufactured goods. The customs union, the first step toward the creation of a common market for goods, was completed by July 1968, eighteen months ahead of schedule.[9] For agricultural products a Common Agricultural Policy (CAP) was created, based on a common administratively set price at which producers were entitled to sell their products on the market or, if market demand proved insufficient, to the EEC itself.

This phase of rapid progress ended in 1965–66, when a major crisis occurred that virtually blocked the project of a clear, albeit gradual and limited, pooling of sovereignty to a supranational institution. The crisis came when, according to the timetable set by the Treaty of Rome, unanimity was to be widely replaced by qualified majority voting in the decision-making. It was caused by the French President Charles de Gaulle, who blocked the transition to the majority rule by imposing the practice that countries should have the right to veto any decision contravening what, in their exclusive judgment, they deemed to be a national "vital interest." While the notion of vital interest suggested that veto would be used only in exceptional circumstances, in practice, unanimity became the conditions for taking decisions.[10]

As a consequence of the 1965–66 crisis, the creation of a common European market slowed down considerably and even rolled back.[11] The stalling became particularly pronounced in the 1970s, a decade of economic stagnation, high inflation rates, and exchange rate instability. Nevertheless, even during this long stalemate, some progress was made in European unification, mainly through successive amendments of the Treaty.

In 1970, the Community was endowed with its own sources of revenue.[12] In 1972, the field of Community action was extended to environmental, social, industrial, and energy policies. In 1973, the United Kingdom, Denmark, and Ireland became new members. In 1974, periodic gatherings of the (by then) nine heads of state or government were formalized into a European Council, meeting at least three times a year. In 1975, a regional policy and a common regional development fund were created, aimed at helping the economically backward regions. In 1979, the European Parliament, previously a body of selected national parliamentarians, started to be elected directly by the people. Despite the limited powers of the European Parliament, this mobilized political parties and voters on European issues and began "democratizing" the otherwise elite- and executive-driven EU system. Finally, in 1979, the European Monetary System (EMS) was created, as a fixed, but adjustable, exchange rate system.[13]

While, these steps notwithstanding, the 1970s had been a decade of general stall, in the 1980s a decisive acceleration was imparted to the European process. This was partly due to the positive economic environment created by an expansion that started in 1982 and lasted for the whole decade. Not less, it was due to the prolonged political stability that prevailed in most countries and to the strongly pro-European Union leadership of Helmut Kohl, François Mitterrand, and other national figures in various countries.[14] As president of the European Commission, Jacques Delors played a decisive role.[15] Under these favorable circumstances, new impetus was given to old projects and new ones were launched.

In 1986, a treaty (the Single European Act) amended the Treaty of Rome.[16] To finally achieve a single market without internal frontiers (end 1992 was set as deadline), it introduced extensive recourse to majority voting for the adoption of the necessary legislation. The long standstill came to an end and in about five years hundreds of new EU laws were passed that implemented freedom of circulation not only for goods but also for capital, services and persons.[17] The single market started on January 1, 1993.

1.2 Fall of the Berlin Wall and Rise of the Euro

The renewed dynamism of the 1980s reached a new milestone in 1988, when the single currency was set on the European agenda and a committee chaired by Jacques Delors was asked by the European Council to draw a blueprint for Economic and Monetary Union (EMU).

The decision to replace national currencies with a single European one was perhaps the most advanced step in the long history of European integration. Together with an army, the currency is the foremost expression of national sovereignty. It is not by accident that names like Louis, real or sovereign, have been chosen in the past by the French, the Spanish, and the English to designate currencies. Although strong economic and technical arguments pleaded for a single currency, as explained later in this chapter, they would have been insufficient to determine the move to the euro had fundamental political decisions not driven the process.

Like Adenauer, De Gasperi, and Schuman in the 1950s, Kohl, Mitterrand, Andreotti, and Gonzalez in the 1980s knew little about the economic and technical arguments for or against monetary union.[18] In line with the original motivations of the 1950s, they saw the single currency mainly as a further step—and as a prerequisite for yet other steps—in the political unification of Europe. In the 1970s they had directly experienced how urgent the need for a tighter union was for their own countries and for Europe as a whole to play a role in the international world. To move forward decisively, they chose the monetary goal, sometimes against their own experts.[19]

Besides the vision of political leaders, unusual historical contingencies played a role. During the crucial phase in which the blueprint prepared by the Delors Committee was at the junction of either being shelved or becoming a concrete political commitment, the Berlin wall fell (November 1989) and the course of post–World War II European history suddenly changed. The reunification of Germany became possible. Both the hope of closing the last wound of World War II and the fear of a resurrection of German hegemony revived at once. From this situation came a decisive impulse to the implementation of the single currency. By supporting the single currency, the German government gave the clear sign that reunification of the nation and further European integration were two inseparable aspects of one and the same policy.

The Treaty of Maastricht was negotiated in 1991 on the basis of the Delors Report and was signed in February 1992. With the exception of the United Kingdom and Denmark, which obtained a special "opt out" clause, the signatories committed themselves to start the single currency at an imperatively fixed final date (January 1, 1999).[20] The date was not contingent on any further decision, nor on a minimum number of participants, but only on compliance with macroeconomic requirements.[21] The requirements, the so-called Maastricht criteria, included convergence toward price stability, sound public finances, exchange rate stability, and low long-term interest rates.

In the aftermath of the signing of the Treaty and concurrent with the process of ratification, the European fixed exchange rate system underwent a serious crisis. Severe tensions in foreign exchange markets led to the exit of the Italian lira and the British pound from the EMS in September 1992, to repeated devaluation of the Spanish peseta and the Portuguese escudo, and to extraordinary measures to support the French franc.[22] The EMS was saved by the decision (August 1993) to widen its margins of fluctuation from 2.25 to 15 percent, but lost much of its disciplinary function.

When the Maastricht Treaty was ratified and entered into force on November 1, 1993, the climate in Europe had departed from the euro-euphoria of Maastricht and a somewhat paradoxical situation had arisen.[23] Because of the gravity of the 1992–93 EMS crisis, the goal of a single currency seemed to have drifted apart and so-called euro-scepticism had gained ground in official and political circles as well as in the public opinion. Indeed, toward 1994 few were convinced that EMU would actually start at the set date. Only some top political leaders, and most notably the German chancellor Helmut Kohl, did not abandon the project.

Meanwhile, however, and to some extent independently, the macroeconomic requirements set for joining the single currency acquired a life of their own. They were adopted by markets and observers as benchmark of good economic policy behavior, to the point that complying with them became a central issue and an influential argument in the domestic economic policy debate of each country. As to the furthering of European unification, it was clear that failing to implement the single currency would have dealt a major blow to the decade-long design to build a united Europe. These circumstances largely explain why, in the 1994–97 period, significant progress was made toward meeting the Maastricht criteria.

After the coming into force of the Treaty, technical preparation began for the move to the single currency. The European Monetary Institute (EMI), forerunner of the European Central Bank (ECB), was set up in Frankfurt in 1994. In 1995 the name of the new currency—the euro—was chosen. The definition of the monetary framework of the future ECB was initiated at the EMI. The design and features of the new notes and coins was approved. It was also decided that while the single currency would be introduced on January 1, 1999, with the disappearance of intra European exchange rates and the adoption of the single monetary policy, the national banknotes would be replaced by euro notes and coins only at the beginning of 2002.

Toward the end of the 1990s, the overall economic and political climate became again propitious to the single currency. In May 1998 the heads of state and government of the European Union took the three final decisions needed to start the single currency. First, eleven countries were selected as eligible for joining the euro; second, the conversion rates between their currencies were set; and, third, the president and the other members of the executive board of the ECB were appointed. On January 1, 1999, the euro became the single currency.

The Single European Act and the Maastricht Treaty brought some changes to the European vocabulary. With the former, what the Treaty of Rome called the "common market" came to be called the "single market," to mark a fresh start. With the latter, the term European Union (EU) was adopted to designate the so-called three-pillar construct comprising the European Communities (the economic and monetary field), a common foreign and security policy, and cooperation in fields of justice and home affairs. While all the provisions, tasks, and procedures pertaining to the first pillar foresee a strong role for supranational institutions, the latter two pillars are up to now governed essentially by intergovernmental cooperation, involving the unanimity rule. In the rest of the book we will often use the term "the Treaty" for the integrated European charter formed by the Single European Act, the Treaty of Maastricht, and the Treaty of Rome.

After Maastricht, the political process of advancing the union by way of Treaty changes continued. In Amsterdam (1997) and in Nice (2000) two new treaties were stipulated, mainly focused on political and institutional aspects of the European Union. Attempts were made to strengthen the second and third pillars set up in Maastricht as well as to prepare the EU institutions for future enlargements to up to twelve new members. The results were modest. In particular, the Treaty of Nice produced rather complicated, and possibly unworkable, compromise formulas. Thus, while the member states declared the European Union ready for enlargement anyway, they also implicitly recognized the need to strengthen the Union and decided to launch, by 2004, yet another round of constitutional reform. In February 2002 a Convention on the Future of Europe, made up of government representatives and parliamentarians, comparable, in a sense, to the Philadelphia Convention back in 1787, was put in charge of preparing a new treaty reform.[24]

1.3 The United Kingdom, European Union, and the Euro

Throughout the process leading to the euro, a special element, one that has often been in the limelight, is the position of the United Kingdom. Those who focus exclusively on the economic and monetary significance of the euro may fail to see that behind the nonparticipation of the pound sterling in the euro there are strong political motivations, before the economic and monetary ones.

Indeed, the reluctance to a single currency, and the final request to be exempted from a firm commitment, were just another instance of the cautious attitude toward European integration the United Kingdom has maintained over half a century. This attitude consisted in resisting and even opposing any transfer of national powers to a jointly governed supranational institution. At the same time, however, and in line with traditional British pragmatism, this attitude comprised a disposition to join EU arrangements and institutions, once implemented and proved successful. Some prominent examples illustrate the point. The United Kingdom tried to stop (in 1956–57) the stipulation of the Treaty of Rome, but asked to join the EEC three years after the start. With Greece and Denmark in 1984 it opposed calling the conference that negotiated the Single European Act, but adhered to it in the end. It stayed out of the EMS in 1979, but joined it eleven years later. It opposed the Social Charter in 1989, but signed it in

1997. It still rejects the 1985 Schengen agreement, whereby most EU member states have abolished all controls at their common borders.

It is fair to say that scepticism and pragmatism (or perhaps empiricism) have permeated British attitudes for fifty years. Scepticism, because most Britons simply disbelieve that continental Europeans really want a United Europe and generally assume Europeans will never do what they say they will. Not by accident, *euro-scepticism* is an expression coined by the British press, although the sentiment it depicts is present also in the European continent. The sentence spelled out by the British delegate when he left the Messina conference in 1955 (which drew the first plan of what became the Treaty of Rome) still stands out as a monument of euro-scepticism. "I leave Messina happy, because even if you continue meeting, you will not agree; even if you agree, nothing will result; and even if something results, it will be a disaster."

Many continental Europeans would like the unification process to benefit in full from the high tradition of political freedom and art of government the United Kingdom has built up over the centuries. They are frustrated by the reserved attitude of many British politicians, journalists, publishers and the general public.

A reserved attitude, however, can be well understood when set against the background of history. For centuries the British Isles have been confronted with efforts by one or the other of European continental powers to unify the continent under a single rule through military, diplomatic, or dynastic initiatives. As an insular power, Britain was naturally protected from invasion and had its main interests on the sea. However, it felt threatened by the rise of a dominating power on the continent. When Philip II of Spain in the sixteenth century, Louis XIV in the seventeenth century, Napoleon in the nineteenth century, or Hitler in the twentieth century engaged themselves in such attempts, Britain acted to rally coalitions that restored the balance of power and impeded domination by one state. In playing this role, Britain protected the weak and built its own strength.

In the five decades since the end of World War II, when the continent sought peace and security, no longer via the establishment of a precarious balance of power but by peacefully and gradually uniting, the deep-seated political instincts of Great Britain emerged again. The unification of the continent was seen as a threat rather than the foundation of peace and order. Hence there was a great reluctance to accept any transfer of sovereignty to common institutions.

The debate about joining the euro is still very open in the United Kingdom. Some economic and monetary arguments echo those used when the Treaty of Maastricht was prepared; others are more specific to the contingent or structural situation of the UK economy. Important as they are, however, economic arguments are perhaps not the crux of the matter. Eventually, and rightly so, the British élite and the voters will decide on the basis of the deeper, albeit less precisely formulated, political and historical considerations that are governing the relationship between the United Kingdom and the European continent.

1.4 Economy: Resolving an Inconsistent Quartet

What we have followed so far is the political road to the euro. We take now the economic road.

Although its principal objective was to establish freedom of circulation of goods, services, capital and persons, the Treaty of Rome was more than that. Referring to the classic taxonomy proposed by Richard Musgrave (1958) for fiscal policy—allocation (aimed at efficiency), stabilization (aimed at stability), redistribution of resources (aimed at equity)—we can say that the full spectrum of economic policies was indeed covered by the Treaty.

As for allocation, not only the market mechanism was contemplated but also other more command-directed methods. First and foremost these were in the field of agriculture through the CAP.

As for stabilization, member countries committed themselves to "treat [their] exchange rate policy as a matter of common interest"[25] and to "regard their economic policies as a matter of common concern and . . . co-ordinate them."[26] In the mid-1950s these loose prescriptions were deemed sufficient because other powerful arrangements were in place. In the monetary field, the key stabilizer was the dollar-based fixed exchange rate system founded at Bretton Woods.[27] In the budgetary field, public sector budgets were broadly in equilibrium and did not threaten overall economic stability as large deficits were to do in the 1970s and afterward.

As for redistribution, the task of helping less developed members and regions to catch up was entrusted to the European Community from the outset and extended considerably afterward. The instruments for this have been the so-called structural funds, the borrowing and lending activity of the European Investment Bank (EIB), and, more recently, the Cohesion Fund.[28]

Although the Treaty of Rome hardly mentioned money, it would be an error to think that its authors forgot to consider what monetary order was required by a single market. Rather, they knew that the yet to be created single market had from the outset an exogenous monetary order and even an implicit single currency, which was the US dollar. The regime of Bretton Woods forbade countries to act unilaterally to gain competitive advantages through a devaluation. And in the mid-1950s, with Europe just emerging from the war and the United States dominating the world economy, that regime was seen as an everlasting one.

The dollar-based fixed exchange rate regime was not everlasting, and it is noteworthy that as soon as it began to falter in the late 1960s, a debate started about how to replace it with a European arrangement.[29] The economic road from Rome 1957 to Maastricht 1992 is the road from a dollar anchor to a "proprietary" anchor called euro.

Two economic paradigms have led Europe along this road. The first is the theory of optimum currency areas and the second, the proposition of the "inconsistent quartet."

Robert Mundell's path-breaking theory of optimum currency areas (OCA), by questioning the one-to-one correspondence between monies and states, made a monetary union spanning over several countries an institutional arrangement conceivable to economists. The theory identified several properties, namely the conditions under which an area would gain from adopting a single currency, regardless of the political borders. In the formulation developed in the 1960s by Mundell (1961), McKinnon (1963), and Kenen (1969), those conditions included, among others, the mobility of factors of production (notably labor and capital), price and wage flexibility, economic openness, and the diversification in production and consumption. Such conditions happened to largely coincide with the economic project underlying the Treaty of Rome and with the effective implementation of the four freedoms. After the 1960s the OCA theory further evolved through an academic debate that is still underway and has accompanied the main steps that led to the adoption of the euro. On the one hand, no conclusive case could easily be made ex ante to establish whether OCA properties were sufficiently present to warrant the adoption of a single currency, namely the euro.[30] On the other hand, it has been increasingly recognized that the very adoption of a single currency can significantly contribute to fulfilling the optimality conditions on an ex post basis (the so-called endogeneity of OCA) by removing barriers and catalyzing the implementation of the Single Market Program and its four freedoms.[31]

The second paradigm is embodied in the proposition that free trade, mobility of capital, fixed exchange rates, and independence of national monetary policies are mutually incompatible. This proposition was put forward by Padoa-Schioppa (1982) to explain the difficulty the EC had encountered over a quarter of a century in implementing the free mobility of capital in a regime of fixed exchange rates, while leaving monetary policy to national authorities. The proposition was an application of the Mundell-Fleming analyses of the macroeconomics of open economies with capital mobility.[32] It was further referred to by Krugman (1987), to argue that—with the establishment of the single market and fixed exchange rates—independent national monetary policies were no longer possible.[33] More recently, the proposition has been the basis of the "two-corner solution theory" discussed in chapter 7.[34]

In Europe the paradigm of the inconsistent quartet pointed to the *necessity* of a single currency, while the OCA theory only referred to the single currency merely as a *possibility*. This explains perhaps why it acted powerfully in pushing toward the adoption of the euro and ceased to be debated after the launching of it.

A careful reading of the Treaty of Rome suggests that its authors did not ignore the inconsistency, but dealt with it without tackling the heart of the problem, namely in radical institutional terms. For one thing, they foresaw the commitment to regard exchange rate policies as a matter of common interest and to coordinate economic policies. In addition they advocated gradualism in removing capital controls, hence softening one of the key prescriptions of the Treaty. Finally they allowed the temporary reintroduction of capital controls in the event of serious tensions. In practice, this approach proved ineffective. The prescribed coordination of national economic policies never took root, and the task to resolve the inconsistency thus fell on capital movement restrictions. The Treaty of Rome perceived the inconsistency, but it failed to resolve it and it took thirty-three years before this fundamental flaw was rectified.

Between the dollar standard and the establishment of the euro, the anchor role was played, for about twenty-five years, by the strongest European currency, the Deutsche mark (DM). The DM regime began in 1972 with an arrangement called the "snake."[35] In 1979, the snake was replaced by the EMS, which included two "large" currencies (the French franc and the Italian lira) in addition to the small ones already pegged to the DM.

Although all participants officially had the same status, the Deutsche mark, being the strongest and most stable currency, was the anchor and the monetary policy of the Deutsche Bundesbank, firmly oriented toward price stability, became the monetary policy of the whole area. This strongly contributed both to the fight against inflation and to the preservation of orderly trade relations within the European Union. And as convergence of individual macroeconomic performances was gradually restored, full implementation of the four freedoms, which in the early 1980s was still largely unfulfilled, gained new support.

In the 1980s the contradiction between the four elements of the quartet, instead of producing a rolling back of European integration as it did in the 1970s, caused a movement forward. Seen in the light of the inconsistent quartet, the road toward the single currency looks like a chain reaction in which each step resolved a preexisting contradiction and generated a new one that in turn required a further step forward. The steps were the start of the EMS (1979), the re-launching of the single market (1985), the decision to accelerate the liberalization of capital movements (1986), the launching of the project of monetary union (1988), the agreement of Maastricht (1992), and the final adoption of the euro (1998).

The difficulties inherent in the inconsistent quartet were aggravated by the fact that, in the course of the 1980s, the EMS became both increasingly rigid and increasingly exposed to tensions. On the one hand, countries that had succeeded in abating inflation to "German" levels (like France), or that still struggled to dis-inflate (like Italy), became less and less inclined to devalue. On the other hand, capital mobility had become so high that markets could mount huge pressure against a currency, even when costs and prices were relatively convergent.

Finally the EMS was further strained and eventually blown up by a policy dilemma arisen from German reunification, which boosted growth in Germany while the rest of Europe was stagnant. Monetary policy was confronted with conflicting needs and the tightening decided by the Bundesbank on the basis of domestic considerations precipitated the crisis of 1992–93. The timing was such that the crisis did not interfere with the Treaty negotiation and only influenced the process of ratification. The whole episode was a striking confirmation of the paradigm of the inconsistent quartet. What determined the crisis was indeed the existence of a conflict about the course of monetary policy, against the background of a combination of fixed exchange rates with full capital mobility.

The paradigm of the inconsistent quartet explains the crises of the Bretton Woods and the EMS regimes. Common to both is the emergence of a conflict between national and international interests after a prolonged period in which they had coincided. In both the domestic inflationary shock of a major political event (the Vietnam war for the US dollar, the reunification of Germany for the Deutsche mark) marked the passage from harmony to conflict. In both cases capital movements, albeit of a different size and speed, exacerbated the conflict.

There were, however, also significant differences. The policy conflict that undermined the Bretton Woods system arose from an accommodative policy of the anchor country (the United States), which ran counter to the anti-inflationary preferences of other important players, such as Germany. In the EMS the policy of the anchor country—Germany—was too restrictive for its partners. More important, the exits were opposite. The international monetary system went to a floating exchange rate system, and Europe to the single currency. In terms of the recently expounded proposition that in an environment of capital mobility only so-called corner solutions work for exchange rates, one can say that the world and Europe moved to opposite corners.

In conclusion, the economic road to the single currency has been one in which the gradual pursuit of the initial objective of the four freedoms was tenaciously pursued over the long run, despite pauses and temporary fallbacks. Along the road, one of its conditions, namely consistency between the economic and the monetary order, was initially fulfilled, then violated, then partially surrogated, and finally embodied in the single currency. The fact that the Treaty of Maastricht takes the form of an amendment of the Treaty of Rome is not a simple formality. It reflects the substance of the matter, in that it removes a fundamental flaw in the original Rome Treaty.

1.5 Central Banking: From Old to New Anchors

The third road to the euro concerns the history of central banks and monetary policy. Indeed, it just happened that the forty-year period between 1958 and 1998 was a key period in that history too, not only in the process of European integration. It was a coincidence, but a strategically important one. This section explains how this period in the history of central banking helped the move toward the euro and how its outcome was embodied in the Maastricht Treaty.

Until about the last third of the twentieth century central banks were tied to two, not always mutually consistent, anchors. The first was the state, and the second was gold. As the holder of political power had always considered the striking of coins as its own prerogative, the right to print notes (what the jargon calls the “printing press”) was granted to central banks by the sovereign government itself. As to the gold anchor, since central banks were expected to stand ready to convert banknotes into gold on request, the amount of money they could create was, or should have been, dependent on the amount of gold in their vaults.

One anchor—gold—was not always tight, as it was technically possible to activate the printing press independently of the amount of gold on reserve. The other anchor—the government of the state—was not always wise, as its own vested interest (fighting wars, gaining popular support by increasing public expenditures, etc.) at times led to overcreation of money. Indeed, with the advent of banknotes, the main risk associated with the creation of money was no longer the scarcity of gold and hence deflation, for the growth in economic activity could be matched with enough means of payments. The main risk became, instead, an excessive use of the printing press and hence inflation.

That the printing press embodied a dangerous temptation was clearly seen by the German poet and scholar Goethe in the early era of paper currency. In his most famous drama, *Faust*, it is Mephistopheles, the devil, who advises the emperor to solve his financial problems by simply issuing paper notes, supposedly backed up by the gold that is as yet unearthed in the soil.[36] And, ironically, it was Germany that experienced, over a century after Goethe, the worst abuse of the printing press. In November 1923 a liter of milk cost 360,000,000 German Reichsmarks, one US dollar was worth 40,000,000,000, and the overall sum of cash in circulation reached the astronomical figure of 3,877,000,000,000,000, (or 3,877 trillion) Reichsmarks. In part, this explains the fierce concern with price stability of both the Bundesbank and the German people.

The history of modern central banking can be looked at as a search for the optimal framework—institutional, intellectual, or operational—in which to set the newly discovered power to create value out of printed paper. This search explains a great deal of the successive migrations of the printing press from the sovereign government to a private institution, then back to the public sphere, and finally to an independent agency. The public policy need was to shelter the creation of money from the influence of whoever may have an interest in using it for self-financing at no cost. The temptation was to make money creation subservient to any interest other than the peoples' interest to have a "sound currency." The modern notion of an independent central bank corresponds to the principle that the central bank needs institutional protection from that temptation.

As long as the principle held firm that public budgets should be balanced (or could only be violated in exceptional circumstances, as in wartime), a publicly controlled central bank was better sheltered than a private one. Pressure for excessive money creation was more likely to come from the private than from the public sector. For most of the twentieth century the prevailing institutional model was increasingly one in which the central bank depended on the Treasury. Accordingly, those central banks that—unlike the Banque de France founded by Napoleon in 1800—were not state institutions from the start were nationalized in the course of the century. Others retained the form of a limited company (Banca d'Italia, National Bank of Belgium) but depended on the government for their policy decisions. With two notable exceptions—US Fed, and German Bundesbank, shaped on the US model—central banks were subordinated to the government for most of the second half of the twentieth century. When the Treaty of Rome was stipulated, this was not a real threat to monetary stability because fiscal discipline was prevailing in most countries and because currencies were still anchored to gold, via their link to the dollar and the latter's link to gold.

The three decades of the 1960s, 1970s, and 1980s witnessed the disruption of this consolidated setting. Driven by political and social change, the role of the state in the economy grew and the size of public budgets swelled. The welfare state enlarged through publicly funded pension systems, national health care, and expanded unemployment subsidies. Meanwhile the idea of deficit spending became widely accepted, intellectually and politically. Treasury-dependent central banks became increasingly exposed to political pressures to finance public deficits through monetary creation. With the advent of deficit spending in the 1970s the public sphere became an unsafe haven for central banks. Meanwhile, and partly under the pressure of the same forces, the Bretton Woods system collapsed and the last remaining link between money and gold was severed. A new framework for managing the currency had to be built. New anchors were needed.

The break from gold permitted, and demanded, money to be managed entirely on the basis of human will rather than on Nature, that is to say, on policy decisions rather than the extraction of gold from mines. A new intellectual paradigm for the conduct of monetary policy became ever more necessary.

The intellectual paradigm prevailing at the time, built on the foundations laid by Keynes, Hicks, and Modigliani,[37] was that in an imperfect world with rigid wages, monetary policy could permanently affect real economic activity.[38] Money was not neutral. There was a trade-off between inflation and unemployment, described by a curve (the Phillips curve, from the name of its inventor) where lower unemployment levels are associated with higher inflation rates.[39] This allowed governments to achieve lower rates of unemployment by accepting a higher rate of inflation.

The nonneutrality of money was, however, challenged by Patinkin, Friedman, and Lucas.[40] In the 1970s the proposition that there was a natural rate of unemployment, from which monetary policy could not depart in the long-run, was supported by empirical evidence. In many industrial countries, the Phillips curve had shifted over time toward combinations of both higher inflation and higher unemployment.

Today there exists a broad consensus about long-run neutrality of money, but views on the short-term effects remain divided.[41] The rational expectations school takes a radical position and asserts that the public expects policy to respond systematically to economic developments so that only random and unexpected actions would have an effect in the end.[42] At an empirical level, the evidence is mixed. It suggests that also systematic and expected changes in monetary policy may have short-term impacts on the real economy due to various frictions, adjustment costs, and information imperfections.

Recognition of the long-run neutrality of money widened acceptance of a hierarchy of goals for monetary policy. A consensus developed that there is no significant policy alternative for central banks to focus primarily on the attainment of price stability, while leaving other policies (labor market policies, supply side policies, fiscal policies) to aim at full employment.

In parallel with the evolution of ideas, the policy of central banks also evolved from an overly ambitious to a more sober view of what could actually be achieved through the conduct of monetary policy. In the United States, for example, monetary policy in the late 1960s and in the 1970s aimed at fostering high employment and often disregarded its consequences on prices until inflation had become high and publicly blamed. In those same years the United Kingdom and several continental European countries went through a similar experience. Only toward the end of the 1970s did attitudes change. In the early 1980s, under Paul Volcker, the Federal Reserve tamed rampant inflation by severely restricting monetary creation and changing market expectations.[43] In the same period the Bank of England under the Thatcher government did the same.[44]

Germany was the notable exception to the inflationary experience of most industrial countries in the second half of the twentieth century, probably because the tragedy of hyperinflation after World War I had eradicated, from the mind of the people, the illusion that more money brings more prosperity. In designing the charter of the ECB, the Bundesbank model was adopted.

The abandonment of the idea that central banks could, or should, choose between inflation and unemployment paved the way to a de-politicization of monetary policy and hence to greater emphasis on the technical rather than political role of central banks. This in turn made it easier to accept the idea that monetary power could be transferred from member states to a common European institution, with the achievement of price stability as the common objective.

In a nutshell, the period between 1957 and 1998 led from the signing of the Treaty of Rome to the single currency. It was also a period when people learned to manage an entirely fiduciary currency whose purchasing power is based on trust rather than intrinsic value. The Treaty of Maastricht sanctions principles of central banking and monetary policy that were identified through scholarly research and policy experience. These principles have gained growing support in the public opinion, and were finally adopted by a wide component of the political spectrum. In a sense, the Treaty embodies what was learned about central bank policies throughout the twentieth century.

The three foundations on which the Treaty of Maastricht built the charter of the single European currency and its central bank are the outcome of the long search briefly summarized in this section. The first is the indication of price stability as the primary objective of monetary policy, the second is the guarantee of full independence of the central bank, and the third is the constitutional status of the charter of the central bank and the currency. In no other central bank charter are these three founding principles spelled out as clearly and strongly as in the Treaty of Maastricht. The Maastricht Treaty indeed represents the first constitution of money that entirely replaces old anchors with new ones. It has moved the printing press from the twin anchors of gold and the sovereign government to the anchor of a constitutional mandate complemented with institutional independence.

This evolution could, of course, have happened in a setting other than the European Union. It is worth noting, however, that an important factor contributed to the meeting of the European and the monetary paths. An entity such as the European Union, which does not retain the traditional powers of the state, appeared to governments as a favorable ground on which to place a monetary power they were ready to abandon.