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The euro: It can't happen, It's a bad idea, It won't last. US economists on the EMU, 1989 – 2002.

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Abstract: The purpose of this study is to survey how US economists, those with the Federal Reserve System and those at US universities, looked upon European monetary unification from the publication of the Delors Report in 1989 to the introduction of euro notes and coins in January 2002.

Our survey of about 190 publications shows (a) that academic economists concentrated on the question "Is the EMU a good or bad thing?", usually adopting the paradigm of optimum currency areas as their main analytical vehicle, (b) that they displayed considerable scepticism towards the single currency, and (c) that economists within the Federal Reserve System had a more pragmatic approach to the single currency than academic economists, focusing on the design and operations of the new European central bank system.

We find it surprising that economists living in and benefiting from a large monetary union like that of the US dollar were so sceptical of monetary unification in Europe. We explain the critical attitude of US economists towards the single currency by several factors: first, the strong influence of the original optimum currency area theory on US analysis, leading to the conclusion that Europe was far from a optimal monetary union, second, the implicit use of a static ahistoric approach to monetary unification, resulting in the failure to see monetary unification as an evolutionary process, third, the failure to identify the problems with alternative exchange arrangements other than a single European currency, and fourth, the misleading belief that the single currency for Europe was primarily a political project that ignored economic fundamentals, thus dooming the single currency to disaster.

Key words: The euro, optimum currency area, Federal Reserve System, EMU, monetary unification, Europe, United States.

JEL classification: B22, E 42, E5, F02, F33 and F41

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Introduction[1]

The euro is now celebrating its first ten years. As of January 2009, the euro is circulating in sixteen European Union Member States.[2] This unparalleled experiment in monetary unification is a milestone in the European integration process.[3] By now, the euro has emerged as a major currency, even as a challenge to the US dollar as the global reserve currency. In a very short time period, it has transformed the European economic and political landscape.[4] Never before have independent nation states surrendered their national currencies to a common central bank, abstaining from monetary sovereignty. In short, the euro is one of the most exciting experiments in monetary history.

How did US economists look at the plans for a single currency in Europe before the euro was actually put into circulation? What type of forecasts did they make about the process of European monetary unification? Which theoretical framework did they use to evaluate the single currency? The purpose of this paper is to provide answers to these questions. We adopt the publication of the Delors report in 1989 as the starting date for our survey and the introduction of the euro notes and coins in 2002 as the end date for our study.

We examine the views of two groups of economists, first those within the Federal Reserve System, and second those at US universities, in short the academic economists, as expressed primarily in journal articles and in contributions to books.[5] We deal only with US economists that were living in the United States in the 1990s,

[1] We are indebted to Michael D. Bordo, Dale Henderson and Peter Kenen for constructive comments. The usual disclaimer holds.
[2] In 2002, twelve out of the then fifteen EU Member States introduced euro notes and coins. Denmark, Sweden and the United Kingdom were the three exceptions. Slovenia adopted the euro in January 2007, Malta and Cyprus in January 2008, and Slovakia joined in January 2009.
[3] American economists have described the single currency in similar terms, for example "a remarkable and unprecedented event in economic and political history" (Feldstein (2000a)), "an economic and political phenomenon" (Eichengreen (1994a)) and "the grand project of Europe" (Krugman (2000)).
[4] For a survey of the euro at 10, see European Economy (2008) as well as Mongelli and Wyplosz (2008).
[5] We also cover a few interviews, speeches and short articles in the media.

observing European monetary integration from the American side of the Atlantic. Thus, we do not consider the views of European economists, neither those in Europe, nor those working in the United States. All in all, our conclusions are based on about 190 publications, more than 140 by academic economists and about 50 by economists working for the Federal Reserve System. See Figure 1 on the frequency of the publications covered by us.

The EMU project attracted sizeable interest in the United States. Still, European monetary integration remained a minor field of research in the United States, where a few economists were dominating; most of them originating from international economics and finance. Some of them, like Barry Eichengreen, Jeffrey Frankel and Martin Feldstein, stayed with the EMU-agenda over the entire 1990s.

In our account, the period 1989-2002 is divided into two phases. The first one starts with the publication of the Delors Report and ends with the Madrid Summit of December 1995, which set January 1999 as the starting date for the launching of the euro, the irrevocable fixing of the parity rates of the currencies of the Member States selected to join the monetary union. At this summit, the euro was introduced as the new name for the single currency. The second phase lasts from the aftermath of the Madrid Summit until January 2002 when euro notes and coins were put into circulation in the euro area.

After the Madrid Summit, the character of the debate in the United States changed as much of the uncertainty concerning the single currency receded, thus making it a proper dividing line for our discussion. However, the line of division between the two phases should not be exaggerated. Nor should it hide the fact that most of the discussion in the United States was driven by actual events on the other side of the Atlantic.

This study is structured in the following way. Section 1 summarizes first the work by Federal Reserve economists, and then the work by US academic economists on European monetary unification in 1989-1996. Similarly, section 2 gives an account of their views in the period 1996-2002. A main conclusion from our survey is that many US economists writing on the single currency in the 1990s, prior to the birth of the euro, were critical of the single currency. We find this surprising as they lived and benefitted from a large monetary union, that of the US dollar. Why did they not see this when they were writing on a Europe, split up in many small currency areas and with a history of traumatic exchange rate realignments? Section 3 offers an answer to the question that emerges in our survey: Why were US economists so sceptical to the euro? Section 4 concludes.

The title for our paper is inspired by Rudiger Dornbusch's (2001a) classification of US commentators on the euro as falling into three "camps", that he described by the following three arguments: It can't happen, It's a bad idea, and It can't last.

1. Laying the foundations of the single currency 1989-1996

The views and comments by US economists were driven by the process of monetary unification in Europe as summarized in Table 1, starting with the Single European Act, signed in February 1986. The act aimed at completing the internal market by December 31, 1992 by removing all barriers to the free movement of capital, labour, goods and services within Member States. Following this decision, once capital was free to move across borders, an important step was taken towards monetary unification.

The Delors report of April 1989 recommended the creation of the Economic and Monetary Union (EMU) in three stages. The Madrid Summit of the European Council in June 1989 agreed to begin stage 1 of EMU on July 1, 1990.

In December 1991, the Maastricht Treaty was signed, stipulating the rules for the transition to the monetary union in a number of convergence criteria. In short, these were based on the rate of inflation, long-term interest rates, membership of the exchange rate mechanism (ERM) of the European Monetary System (EMS) for at least two years preceding entrance, the size of the government budget deficit and of government debt relative to GDP. [6] The Maastricht Treaty aimed at a gradual nominal

[6] The convergence criteria stated that (1) the rate of inflation of a Member State must not exceed by more than 1.5 percentage points the average inflation rate for the three best performing Member States, (2) the nominal long term interest rate of a Member State must not exceed by more than 2 percentage points the average nominal long term interest rate of the three best performing states, (3) the budget deficit must not exceed 3 percent, and total debt 60 percent of GDP, and (4) the exchange rate of the Member State must have been held within the Exchange Rate Mechanism of the European Monetary

convergence for the future members of the monetary union.

Danish voters rejected the Maastricht Treaty in a referendum in June 1992, contributing to wide-spread exchange rate speculation in the fall of 1992 and 1993. Eventually, the narrow exchange rate bands of the European Monetary System were abandoned. See Table 2 for a summary of the ERM-crisis.

The crisis was viewed by many as undermining the plans for a single currency. However, the political commitment to monetary union remained in force. In 1995, the European Council at a summit meeting in Madrid decided on the final time table for the introduction of the single currency, now officially called the euro, setting the start of stage 3 to January 1999. At that date, the exchange rates of the currencies of the members of the monetary union were irrevocably locked. Three years later, euro notes and coins were put into circulation in all participating Member States.

1. Federal Reserve economists, 1989-1996

The events summarized in Table 1 impacted upon the publications of Federal Reserve economists. Their discussion covered two broad areas, first, the move towards a single market and a monetary union, and second, after the ratification of the Maastricht Treaty, the likelihood of the single currency actually being established, as expressed in one title as "EMU. Will it fly?"[7] See Table 3 for a summary of the work by economists with the Federal Reserve System.

(1) The move towards a single market and a single currency

Federal Reserve economists provided a number of matter-of-fact accounts of the march towards the single market and the single currency, focusing on institutional details. Their aim was to describe what was going on in Europe to an American audience, sometimes considering the impact of European economic integration on the US economy and on US firms. There was limited economic analysis in their writings as summarized in Table 3.

System for a period of two years without serious pressure on the exchange rate.

[7] Title borrowed from Pollard (1995).

Some examples of this strand of work: Janice Boucher (1991) argued that the establishment of the internal market by December 1992 and of a European monetary union should be viewed as two complementing measures. A common currency would benefit the common market. She considered monetary unification to be a process distinct from the single market. Her discussion was based on a straightforward cost-benefit calculus, focusing on the benefits. In a similar study, Linda Hunter (1991) examined the effects of the elimination of regulatory barriers in Europe and its implications for the United States. Overall, she concluded that the internal market would benefit European consumers and US firms operating in Europe.[8]

The relationship between the single market and monetary unification was generally identified as a positive one by Federal Reserve economists during this period. Lee Hoskins (1989), Micheal Chriszt (1991) and Reuven Glick (1991) all concluded that the completion of the internal market and the move towards EMU would confer significant economic benefits to Member States in the long run. Glick (1991) highlighted the absence in Europe of a federal system of taxation as a problem as factor mobility was low in Europe.[9]

The Maastricht Treaty inspired a discussion of the future institutional structure of the EMU. Usually the account, as in Paula Hildebrandt (1991), reported on the different steps towards monetary union. Hildebrandt (1991) identified the possibility of a two-speed approach to EMU being adopted due to differences across Member States. Relying on a political economy approach, Carl Walsh (1992) was sceptical of the ability of the future European central bank to operate as a wholly independent monetary authority. After inspecting the historical record of monetary unions, Graboyles (1990) concluded for the EMU that “A successful monetary union requires that the countries involved gain from the union agreement and it requires institutions which enforce the agreement once it is reached”.

(2) Will EMU fly?

As the planning for the single currency continued after the ERM-crisis in 1992-93, Federal Reserve economists turned to the likelihood of the establishment of the single

[8] She quoted the findings of Emerson et al. (1988) that the completion of the single market would result in a decrease in imports from outside Europe of between 7.9 and 10.3 percent.

[9] Glick (1991, p. 2) stated that “factor mobility is now and is likely to remain much lower than in the US because of Europe’s greater social, linguistic and cultural diversity”.

currency. Gradually this discussion acknowledged that a European single currency would entail implications for the dollar and the global monetary system.[10]

Patricia Pollard (1995) evaluated the convergence criteria as set out in the Treaty of Maastricht. With only two Member States (Germany and Luxembourg) satisfying all the criteria in 1994, she considered the prospects for EMU becoming fully operational before the end of the 1990s to be remote. In her view, "based on the five convergence criteria, it is almost certain that a majority of the EU countries will not be ready for monetary union when the inter-governmental conference is held in 1996". The introduction of the single currency in 1997 was impossible to achieve. EMU would be postponed by at least two years as the most likely scenario.[11] Pollard (1995, pp. 15-16) concluded that unless a degree of flexibility is forthcoming with regard to interpreting the convergence criteria, the entire EMU project would be significantly delayed.

Even after the Madrid Summit, the concept of a multi-speed transition to monetary union was considered as an option by Michel Aglietta and Merih Uctum (1996) who held that under such a transition a small group of countries would form the initial core of the monetary union with the other countries joining over time.

The implications for the global position of the dollar caused by the introduction of single European currency were also discussed at this early stage by Leahy (1994), Johnson (1994) and Edision and Cole (1994). They concluded that the single currency would not be a challenge to the dollar in the foreseeable future.

Overall, Federal Reserve economists held a positive attitude to EMU and the single currency, albeit they felt it was likely that the monetary union would be delayed.

1.2. US academic economists, 1989-1996

While Federal Reserve economists concentrated on describing economic and

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[10] In addition to the Danish rejection of the Maastricht Treaty in June 1992, ratification was also delayed due to a legal challenge mounted in the German constitutional court (The Brunner Case). The Maastricht Treaty eventually came into force on November 1st 1993 in Germany.

[11] Pollard (1995, p. 11) viewed Portugal, Spain and Greece as being the Member States facing the most difficulties in meeting the convergence criteria.

monetary integration in Europe, commonly in briefs of a few pages, the academic economists focused on weaknesses and problems in the integration process, usually in long papers involving models and econometric tests. They were strongly inspired by the optimum currency area (OCA) approach of Robert Mundell (1961). Much effort was put into bringing the OCA-theory to bear on the feasibility and desirability of the single currency, where attempts were made to measure how close the EU Member States or a subset of them were to an "optimal" monetary union in the sense of fulfilling various OCA criteria.

US academic debate in this period dealt with roughly four main overlapping issues although many contributions addressed more than one issue at a time: (1) the Maastricht Treaty, (2) OCA theory, (3) fiscal federalism and other lessons from the US fiscal and monetary experience, and (4) the political economy of EMU. As these issues are closely interrelated, it is difficult to draw sharp lines of division between them. Still, we use this classification of the topics to simplify our summary of the many contributions. See Table 4 for a summary of the publications of the academic economists.

(1) The Maastricht Treaty

The Maastricht Treaty inspired much debate. A key component of the debate in the early 1990s concerned the variable speed approach to EMU, reflecting the view that if the EMU was to occur, then the most likely viable strategy to achieve monetary integration was to allow Member States into the monetary union at different points in time. Dornbusch (1990), Peter Kenen (1992), Bayoumi and Eichengreen (1993) and John Letiche (1992) among others concluded that a multi-speed approach was to be expected albeit with slightly different combinations of Member States. Offering a retrospective analysis of the ability of Member States to meet the Maastricht criteria, Letiche (1992) concluded that the most likely scenario would be the establishment of a single currency based on two or three country groupings according to their abilities to fulfil the convergence criteria, with each grouping implementing a different timetable for entry into the monetary union.[12]

Many questioned the economic rationale behind the convergence criteria of the

[12] See also Giovannini, Cooper and Hall (1990) for a broadly based examination of the prospects for EMU.

Maastricht treaty. For example, Peter Kenen (1992, pp. 81-82) was critical of the convergence criterion concerning exchange rate stability, fearing that they may induce some Member States to devalue prior to entering the monetary union.[13] The fiscal convergence criteria were also a source of debate.[14] The Maastricht Treaty provided for policy co-ordination by setting up a system for surveillance over national policies rather than collective policy formulation which also became a source of debate.[15]

Evaluating the 'excessive deficits' provision of the Maastricht Treaty, Frankel (1993) suggested that "EMU membership, even if not intrinsically connected to fiscal deficits, might be intended as reward or incentive for good fiscal behaviour". He viewed the fiscal provisions of the Maastricht Treaty as a 'test of will' designed to allow Member States to express how strongly they wanted to accomplish EMU.[16]

The Danish rejection of the Maastricht Treaty in June 1992 and the ERM crisis in 1992-93 contributed to a pessimistic view of the Maastricht timetable.[17] The ERM crisis stimulated a number of comments. It was viewed as the outcome of incomplete harmonisation of national economic policies, as discussed by Branson (1993) and Dornbusch (1993), and as illustrating the vulnerability of pegged exchange rates to self-fulfilling speculative attacks as analyzed by Eichengreen and Wyplosz (1993).

In light of the Danish rejection of the Maastricht Treaty, Eichengreen (1992b), acknowledging the gains from EMU, suggested a set of modifications of the Treaty in order to ensure that the benefits of monetary union would outweigh the costs. These modifications included a more clear assignment for exchange rate policy and relaxation of restrictions on the ECB concerning financial supervision.[18]

Considering potential scenarios for the future EMU in a post ERM-crisis environment, Eichengreen and Frieden (1994) held that EMU including the full

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[13] See for example Froot and Rogoff (1991).

[14] See Hutchison and Kletzer (1994) concerning the use of specific qualitative fiscal convergence criteria.

[15] See Kenen (1992) for an overview of the fiscal policy debate concerning EMU.

[16] Frankel (1993, p.8) noted that "the fiscal criteria are less directly relevant to the Optimum Currency Area question than the other Maastricht criteria. But precisely because they are so difficult, they offer a test of strength and will. They even more seriously than a referendum, force the constituencies within a country to confront the question of how badly they want EMU".

[17] See Meltzer (1990), Folkerts-Landau and Garber (1992) for a pre-ERM crisis assessment of the EMS and the EMU project. see also Kenen (1995a) and Wachtel (1996).

[18] Kenen (1995b) highlighted the importance of target driven policy instruments in the pursuit of

twelve Member States by 1999 was unlikely to occur. To them the most likely scenario would be the establishment of a "mini-EMU" outside the scope of the Maastricht Treaty, comprising France, Germany and some of their smaller northern European neighbours. They acknowledged the perilous political viability of such a scenario.

(2) Optimum currency area theory

Most of the research on the single currency was inspired by the optimum currency area (OCA) theory as developed by Robert Mundell and others in the 1960s and 1970s.[19] The original OCA approach studies two regions (countries) that face the choice between a permanently fixed exchange rate (a currency or a monetary union) and a fully flexible exchange rate. The choice is represented by a trade-off between the increased efficiency in cross-border transactions through the use of a single currency and the macroeconomic loss of national monetary policy independence through the surrender of the national currency. A cost-benefit calculus determines the selection of the preferred exchange rate regime.

The OCA paradigm was adopted to examine to what extent European countries fulfilled a set of criteria of optimality concerning inter alia trade openness, factor mobility and incidence of asymmetric shocks. It was also used as a framework for comparing the European economy with the US economy where the US served as a benchmark of a well-functioning monetary union.[20]

Eichengreen (1991) found conclusive evidence pointing to a substantially (3 to 4 times) higher level of exchange rate variability within the EU than in the United States. He also identified the existence of a higher correlation of shocks in North America than in Europe.[21] Using estimates from time series models of regional unemployment, Eichengreen (1990a and 1991) established that labour mobility was greater within the United States than in Europe. He held these results to indicate that

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exchange rate stability.

[19] Mundell (1961) is the starting point for this literature.

[20] In the introduction to his collection of studies on European monetary unification, Eichengreen (1997a, p. 1) stressed that the OCA theory served as the "organizing framework" for his analysis. The same holds for almost all US economists estimating the costs and benefits of the single currency in the 1990s.

[21] Through an examination of real exchange variability among all the then EC Member States and among the principal regions of the United States, and of the co-movement of securities prices on the Paris and Dusseldorf stock exchanges with that of the prices of shares traded in Montreal and Toronto.

Europe remained further than the United States from being an optimum currency area.

Many contributions focused on the ability of the US system of fiscal federal redistribution to offset regional asymmetric shocks and the lack of such a mechanism within the European Union. Sala-i-Martin and Sachs (1991) concluded that every one dollar reduction in a region's per capita personal income triggered a decrease in federal taxes by 34 cents from the region and an increase in federal transfers by 6 cents to the region. Thus, within the United States the overall change in federal fiscal receipts and payments offsets 40 per cent of a one dollar decline in personal income. Bayoumi and Masson (1991) concluded that the US federal fiscal structure offset 28 per cent of a one dollar decrease in regional income.[22] Inman and Rubinfeld (1992, pp. 659), comparing EMU with the US, found that "with a centralised monetary policy a substitute fiscal policy to ease the burdens of state specific economic shocks is needed". These studies suggested that fiscal transfers, whatever the precise figure involved, offset partially regional asymmetric shocks in the United States.

The general conclusion from the work based on the OCA-framework was that Europe lagged behind the United States in terms of labour mobility, in terms of federal fiscal redistribution, and that Europe experienced more asymmetric shocks than the United States.[23] As argued below, the adoption of the conventional OCA-paradigm to evaluate the viability of membership in a monetary union gave probably a negative bias to this strand of work.

(3) Fiscal federalism and lessons from the US experience

Related to the OCA-inspired analysis, economists asked "whether a monetary union accompanied by fiscal federalism is likely to operate more smoothly than a monetary union without it".[24] The debate in this area was based on the explicit acknowledgement that the EMU Member States would not be an optimum currency area.

[22] Bayoumi and Masson (1991) attempted to distinguish between structural and cyclical effects in estimating the overall effects of fiscal transfers.

[23] Bayoumi and Masson (1991), Sala-i-Martin and Sachs (1991), Eichengreen (1990a, 1991 and 1992b) and Bayoumi and Eichengreen (1993).

[24] Eichengreen (1991, p.17). Eichengreen (1992a) and Krugman (1993) used the historical record of the Federal Reserve and Massachusetts to discuss the future of the ECSB and EMU.

Eichengreen (1990b), in a detailed analysis of the potential lessons for EMU from the U.S experience, concluded that monetary integration would limit fiscal independence. He noted that the extent of fiscal transfers in the European Union would have to significantly exceed the extent of fiscal transfers in the United States to be successful as regional shocks were likely to be significantly greater in EMU Member States than in the U.S states.

The historical experience of the US monetary union stimulated research. Inman and Rubinfeld (1992) stressed that a centralised monetary policy should be complemented by a unified fiscal system to ease the impacts of state specific shocks. They held that a key lesson for EMU from the US experience was that the access of decentralised legislatures to tax revenues should be limited to avoid inefficient decision- making.

McKinnon (1994) considered the U.S experience by posing the question, ‘a common monetary standard or a common currency for Europe’? He concluded that “because it respects the fiscal need to keep national central banks and national currencies in place in highly indebted European countries, a common monetary standard is preferable to a common currency”.

Eichengreen (1994a) argued that the failure of the Maastricht Treaty to include any provisions regarding fiscal federalism posed serious problems. Eichengreen and von Hagen (1996) challenged the view that borrowing restrictions were an appropriate means for preventing Member States to borrow too much.[25]

(4) The political economy of EMU

US academic discussion early identified the inseparable nature of politics and economics in the European monetary unification process. For example, Eichengreen and Frieden (1994) stressed “that the decision to create a single currency and central bank is not made by a beneficent social planner weighing the cost and benefits to the participating nations. Rather, it is the outcome of a political process of treaty negotiation, parliamentary ratification and popular referenda”[26].

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[25] Hutchison and Kletzer (1995) argued that economic efficiency considerations will lead to fiscal federalism under EMU. See also Wildasin (1990).

[26] Eichengreen and Frieden (1994a) discussed the politics of monetary unification as involving inter-state bargaining, issue linkages, and domestic distributional factors. See also Gabel (1994) and McKinnon (1995).

This perception of the European monetary integration as an inherently political process inspired a move away from a purely economic cost-benefit calculus based on the OCA-approach into issues of political security and international relationships. Uncertainty and fear about the political effects of the European integration process led many to question the desirability of EMU. This is illustrated by Dornbusch (1996b, p. 123) who held that “although approving of the evolution of a European common market, the US is fearful about EMU. The first was seen as contributing to prosperity and thus political stability. The second is seen as carrying a high risk of contributing to a recession and thus political trouble”.

In the early 1990s, Feldstein (1992 a, b) put forward a pessimistic scenario for EMU – a scenario he stayed with during the whole period studied by us. He argued that the adverse political effects of a European monetary union would far outweigh any economic net benefits of the single currency. Stressing security aspects, he questioned the proposition that Germany would be “contained” in a broader European government, instead it was highly unlikely that “Britain, France and the other countries of Europe will want to form a continental government in which Germany has the largest population and the strongest economy as a way of limiting Germany’s future power or the military exercise of that power”. He argued that it as highly improbable for Europe to begin the 21st century with a successful monetary union in place.

A similar view was expressed by Anna Schwartz (1993). When asked if she thought EMU would occur, she replied “nothing that has happened in this past year suggests that the great plans for the implementation of a monetary union are likely to be achieved. I just don't see them meeting the basic conditions for its success. I think if you saw political union happening, then you might see monetary union.”

The role of politics in the creation of monetary unions was considered by Benjamin Cohen (1994) in a historical exercise. He identified the two crucial political characteristics common to sustainable currency unions in his sample; (1) the presence of a dominant state “willing and able to use its influence to keep a currency union functioning effectively”, and (2) the presence “of a broader constellation of related ties and commitments sufficient to make the loss of monetary autonomy, whatever the magnitude of prospective adjustment costs, seem basically acceptable to each partner". His conclusion was that the sustainability of the single currency was based on the political will of the Member States.

The discussion of the political economy of EMU during this period confirmed two sets of views. One group of economists like Dornbusch and Feldstein were convinced that the political price necessary for EMU would prove too high for Member States. A second group looked upon EMU as another step in the European integration process.[27] Little effort was spent on the likelihood of establishing a single currency in Europe without further political integration.[28]

2. On the road to the euro, 1996-2002

In December 1995, the European Council decided on the final time table for the launching of the euro. In May 1998, the European Council selected the countries to adopt the euro in January 1999, the third and final stage of the EMU process. With these steps, the plans for the new currency were firmly settled.

2.1. Federal Reserve economists, 1996-2002

The official adoption of the date for the introduction of the euro marked a shift in the analysis within the Federal Reserve System.[29] From this point on, the new European currency was taken as a matter of fact, or as a very likely outcome. Discussion in the second half of the 1990s centred on (1) the design of the European System of Central Banks, (2) the costs and benefits of EMU, and (3) the impact of the euro upon the position of the dollar and its implications for the USA-Europe relationship.

(1) The architecture of the ECB-system

Much of the discussion of the design of the European System of Central Banks

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[27] Eichengreen and Frieden (1994) viewed the political economy of EMU as operating "within an environment of ongoing negotiation among the European governments engaged in the search for mutually acceptable agreements on the road to broader and deeper integration".

[28] A notable exception being Richard Cooper in Giovannini, Cooper and Hall (1990). Conversely, Dornbusch (1996b) summed up the whole EMU project as "Euro Fantasies".

[29] See for example John Whitt (1997, p. 27) stating "as long as the political leaders in the two largest countries in the EU, Germany and France, are committed to going ahead, the prospects for at least a

(ESCB) was based on comparisons with the Federal Reserve System. For example, Mark Wynne (1999a) highlighted the differences between the European and the US central banking systems with regard to the policy mandate, the concentration of power the and decision making structures.[30] The diffused structure of the ECB's decision making - the Executive Board being in a permanent minority on the governing council, and the fact that all national central bank governors have a vote in all policy decisions of the governing council - were compared to the more concentrated power structures in the Federal Reserve System. Here, the Board of Governors has a permanent majority on the Federal Open Market Committee (FOMC) with a rotating Regional Reserve Bank membership. The Board of Governors also has significant power with regard to the supervision of Regional Banks actions and the appointment processes.[31] By contrast, Article 11 of the statute of the ESCB grants the Governing Council control over the Executive Board.

Wynne (1999a) argued that the unambiguous policy mandate of the European Central Bank will aid its long term credibility, but that the broad diffusion of power may prevent it from resolving future conflicts among national interests. Both Wynne (1999a) and Goodfriend (1999) identified the ESCB as having a distribution of power equivalent to the Federal Reserve before the Federal Reserve Acts of the 1930s.

The two-pillar strategy, with its simultaneous focus on price stability and on the money stock, adopted by the ECB stimulated substantial debate.[32] The conclusions drawn were mixed. Carol Bertaut and Murat Iyigum (1999, p. 658) held that "the ECB's choice of a flexible approach to monetary policy making was pragmatic. The need for the ECB to be flexible in the short run makes its policy setting less

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mini-union beginning in 1999 seem favourable." See also Wynne (1999b).

[30] Article 105 of the Maastricht Treaty states "the primary objective of the ESCB shall be to maintain price stability". The Federal Reserve Act, Section 2A.1, sets out the Federal Reserve's mandate as "The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregate commensurate with the country's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices and moderate long term interest rates".

[31] The Federal Reserve Act, Section 4.20, gives the Board of Governors the authority to supervise the activities of the regional reserve banks, to approve their budgets and the appointment of their presidents. The Board of Governors also appoints three of the nine directors of the regional reserve banks.

[32] As outlined in the ECB Press Release on 13/10/1998 entitled "A stability orientated monetary policy strategy for the ESCB". This strategy rests on two pillars: first, a prominent role for money – this is signaled by the announcement of a reference value for the growth of broad money supply, and second, a broadly based assessment of the outlook for future price developments and the risks to price stability in the euro area. See also Bertaut (2002).

transparent". However, Wynne (1999a, p.10) cautioned that the "adoption of a mixed strategy might seem to defeat the purpose of articulating a strategy in the first place".

Marvin Goodfriend (1999) and Jeff Wrase (1999) found the ECB to be accountable and transparent.[33] However, Little (1998) contended that, although required to come before the European Parliament and not withstanding the willingness of executive board members to come voluntarily before the Parliament on a quarterly basis, the ECB still would suffer from a significant accountability deficit as no political body has the authority to abolish the ECB. These doubts concerning legitimacy may affect the ability of the ECB to establish long run monetary policy credibility.[34]

Jon Faust et al. (2001) provided an empirical comparison of the policy rule of the ECB with that of the Bundesbank. Based upon a comparison of the ECB's actual monetary policy with those predicted by a reaction function, they concluded that "the ECB has placed a relatively high weight on the output gap of the recently created monetary union and relatively low weight on inflation, compared to the typical pre-ECB Bundesbank behaviour".[35]

In another empirical study, Ellen Meade and Nathan Sheets (2002) found that Federal Reserve policymakers did take into account regional unemployment when deciding monetary policy. Bringing this result to bear on the ECB, they stressed the possibility that central bankers when meeting in Frankfurt could be nationally biased by allowing regional considerations to influence euro area monetary policy. They concluded that regional biases of all policymakers ought to be considered in any debate on potential reforms of the ECB's Governing Council.[36]

There was unanimous agreement regarding the independence of the ECB. Little

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[33] Goodfriend (1999) and Wrase (1999) attached little importance to the ECB policy of not publishing minutes of Governing Council meetings. Wrase (1999, p. 12) held that "proceedings of the Governing Council's meetings are kept confidential, to guard against short term political pressures."

[34] Articles 113.3 of the Maastricht Treaty and 15.3 of the ESCB Statute require the President to present an annual report on the Parliament, Commission and Council. See Little (1998).

[35] See Hetzel (2002) for an analysis of Bundesbank behavior in the post World War II period up to EMU.

[36] The Governing Council is the highest decision making body of the ECB, comprised of the six members of the Executive Board and the governors of the national central banks of the euro area. Each member of the Governing Council has one vote in policy decisions. The key task of the Governing Council is to formulate the monetary policy of the euro area.

(1998), Goodfriend (1999), Wrase (1999) and Wynne (1999a) among other concurred that the high degree of independence enjoyed by the ECB was conducive to long term low inflation performance and long-run credibility.[37] Wynne (1999a, p. 7) and Wrase (1999, p.12) alluded to the fact that both the members of the Executive Board (with non-renewable eight year terms) and National Central Bank Governors (renewable five year terms) were appointed for relatively long terms, thus strengthening central bank independence. However, some studies viewed the ambiguity in the Maastricht Treaty regarding exchange rate policy as a major potential threat to the independence of the ECB. This ambiguity could initiate a conflict between exchange rate stability and price stability.[38]

(2) The costs and benefits of EMU

The discussion within the Federal Reserve concerning the costs and benefits of European monetary union followed the standard academic debate on the advantages of a fixed exchange rate. For example, Ed Stevens (1999) viewed the costs of membership in terms of surrendering a pegged rate as being more than offset in the long run by the elimination of transactions costs, by increased transparency of the price discovery process and the reduction of exchange rate uncertainty.[39] Gwen Eudey (1998) considered potential dangers associated with a fixed exchange rate regime. She acknowledged that the loss of an independent monetary policy to counter asymmetric shocks necessitated adjustment occurring “through changes in wages or through the movement of workers from one country to another”.[40] The long run success of the single currency depended on the degree to which prices and wages were flexible and on the ability of labour to move across national borders as illustrated by the case of California and Arizona during the 1990-91 US recession.[41] She suggested that “member countries may find it necessary to institute international tax and redistribution policies through growth of the European Union’s budget to allow for regional differences in policy stimulus or restraint”.[42]

The linkages between the ECB and fiscal policy were covered by Jerry Jordan (1997).

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[37] As set out in Article 107 of the Maastricht Treaty and Article 7 of the ESCB Statute.
[38] Specifically Goodfriend (1999) and Wynne (1999a).
[39] See Klein (1998), Whitt (1997) and Eudey (1998).
[40] Eudey (1998, p. 17).
[50] Eudey (1998) used the example of out-migration from California between mid-1993 and mid-1994.
[51] See Carlino (1998) who constructed an index that ranked EMU countries by their likely sensitivity to a common monetary shock. He concluded (p. 18) that “the asymmetric response to monetary policy

He stated that the overall fiscal position of all the Member States was likely to affect the credibility of the common currency. In his opinion, the ability of national fiscal authorities to maintain tight discipline will ultimately determine the success or failure of the single currency. The "separation of monetary policy from the conduct of fiscal policies will place stringent constraints on individual Member States".[43]

(3) The impact of the euro upon the dollar

In a speech in 1997 on US perspectives on EMU, the then president of the New York Federal Reserve Bank, William J. McDonough stated that it "would be a mistake to think that the United States looks at this prospect with concern, as if the introduction of the euro could somehow compromise the ability of the United States to continue to trade and conduct financial transactions with the rest of the world".[44] In his opinion, the euro would only have an impact on the dollar as the predominant means of exchange in international financial transactions in the long-run: "it seems safe to assume that significant changes in the international role of the dollar and the functioning of the international monetary system would occur only gradually and surely in a manner that could be easily coped with". This view appears to be the general one within the Federal Reserve System in the late 1990s.

Federal Reserve research on the dollar-euro relationship was largely based on reviews of the functions of an international reserve currency.[45] Examining the first two years of the euro, Patricia Pollard (2001) noted little change in the role of the dollar as an exchange rate peg for third countries or as the globally favoured reserve currency. She concurred with the McDonough (1997) that the emergence of the euro as a truly international currency and companion for the dollar can only be achieved gradually.

Pollard (2001, p. 34) acknowledged that the position of the dollar as the leading international currency depended primarily upon the US ability to avoid financial crises and to maintain strong economic performance. Both McDonough (1997) and

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shocks in likely to be greater across EMU countries than across US states and regions".

[43] See also Gramlich and Wood (2000) and Spiegel (1997) who reviewed the economic arguments for the Stability and Growth Pact.

[44] "A US Perspective on Economic and Monetary Union in Europe", speech before the Association of German Mortgage Banks, Frankfurt, Germany, November 17, 1997. See also Guynn (1998) and Meyer (1999).

[45] See Wynne (2000), Pollard (2001), while Rodgers (2002) dealt with a comparative examination of price level convergence between the euro area and the US. Canzoneri et al. (2002) analysed issues relating to fiscal policy.

Pollard (2001) concluded that the successful establishment of the euro on the world's financial markets and the completion of EMU opens up a whole array of new benefits for US firms in trade and finance.

The consequences of the euro for the dollar as the global currency were examined by Fiona Signalla and David Gould (1997). They viewed the introduction of the euro as probably leading to a significant drop in the international holdings of dollars. Marion (1998, p. 10) identified a larger market and the removal of obstacles to trade freely within the EU's borders as the future benefits of European monetary union to US businesses. He forecasted that the dollar's position as the preferred currency was unlikely to be supplanted in the short to medium term by the fledging euro currency "because the dollar has a strong history as a store of value and is so widely used and accepted, it is unlikely that it will be supplanted as the preferred reserve currency any time soon." Adam Zaretsky (1998) as well as Signalla and Gould (1997) held that the impact of the euro on the world's financial system remained highly uncertain and depended solely on the perception by investors of the success or failure of the European monetary union after the introduction of the single currency.

The published views of economists within the Federal Reserve on the EMU during this period were consistent with the official position of the US government which held that the introduction of the euro would do little to alter the relative strength and position of the dollar in the short term.[46] The attitude of consecutive US administrations was one of welcoming the creation of the single currency within the European Union while acknowledging that "the euro is not likely to cause a sudden decline in the dollar's use as an international currency in the near future, and any shift away from the dollar will be gradual".[47] The official position of the US government was that the euro was a sign of progress made by the European Union.[48]

2.2. U.S academic economists, 1996-2002

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[46] See for instance the speech by Treasury Secretary Lawrence Summers, given to the EuroMoney Conference, New York, April 1997 and the 1999 Economic Report of the President, pp. 290-305.

[47] In a document entitled "The Euro-Implications for the US (March 2000, p. 25/26). The 1999 Economic Report of the President spoke of the euro in the following terms "The United States salutes the formation of the European Monetary Union. The United States has much to gain from the success of this momentous project. Now more than ever, America is well served by having an integrated trading partner on the other side of the Atlantic" (p. 305).

[48] See also Volcker (1997) and Wynne (2002) considering the implications of the actual cash changeover from national currencies to the euro.

Academic economists were influenced, just like those of Federal Reserve economists, by the plan for the single currency to commence on January 1st 1999. The debate moved away from the scenario of “it can’t happen” towards "it’s a bad idea” and “it can’t last” arguments as identified by Dornbusch (2001a). In this phase, the division increased between those who viewed the introduction of the euro as a positive development and those who regarded it as politically damaging. The debate centred on the following three distinct but highly related issues: (1) politics versus economics in the EMU, (2) the euro area as a non-optimal currency area, and (3) the euro and the dollar: A struggle for dominance?

(1) Politics versus economics in the EMU

As it became more certain that the single currency would be established, the divide between economists supportive of EMU and those critical crystallised. Some economists, such as Martin Feldstein, forcefully argued that EMU would prove an "economic liability" with overall negative economic consequences: to impose a single interest rate and fixed exchange rates on countries characterised by inflexible wages, low labour mobility and lack of centralised fiscal redistribution, will achieve nothing except increasing the level of cyclical unemployment among the members of the single currency area. [49]

Feldstein viewed EMU as an economic tool for political leaders in Europe to further their agenda for a federalist union, as a first stage in the creation of a United States of Europe with a single foreign and military policy. He regarded such a construction as having a destabilising influence impact on Europe and on world peace. In his opinion, national political interests in France and Germany provided the driving motor of EMU; France in seeing the EMU as a mechanism for gaining equality with Germany, and Germany in wanting a deepening of political and fiscal integration.[50]

Considering the long term consequences of the single currency, Feldstein (1997a) concluded that the inevitable conflict for leadership between Germany and France for

[49] See Feldstein (1997a and b, 1998, 1999, 2000a and b, and 2001) and Feldstein and Feldstein (1998).

[50] Feldstein (1997a, p. 11-13) viewed other EU Member States (such as Italy and Spain) as participating in EMU, not due to the questionable economic benefits, but rather due to a combination of (a) the fear of being excluded from the deepening of the political union of the EMU likely to follow the implementation of the single currency, and (b) the belief/fear the countries will be discriminated against in other EU policy area if they do not join.

the dominant influence on EMU would only serve to exacerbate tensions between individual Member States. He believed that the long run sustainability of EMU depended on its contribution to long term political security rather than on any economic success. In his opinion, disintegration in Europe and conflict with the United States should not be ruled out.[51] Also Charles Calomiris (1998) suggested that the collapse of EMU was likely due to structural weaknesses of the EU economies, in particular the potential for future pension system insolvency and banking system weaknesses, specifically in Italy and Spain.

The rationale for Member States joining the euro was identified as being overwhelmingly political by Jeff Frieden (1998). He identified three primary factors behind the will of Member States to join: (a) a fear of being left out of a central EU institution, (b) a fear of losing the support of the pan-European business community, and (c) a fear of the economic consequences of loosing many years of hard work to get into Europe's monetary club.

Similarly, Anna Schwartz (2001) viewed the decision to proceed with a monetary union prior to the creation of a more integrated political structure as reflecting a lack of consensus within EU Member States with regard to a deeper political union - a federal state or a community of nation states.[52] Thomas Willet (2000) regarded EMU as a mechanism to further the process of political integration that began in the 1950s. He viewed EMU as a political project driven by misdirected economic analysis with limited economic benefits for potential members.[53]

Maurice Obstfeld (1997) offering a critical review of the costs and benefits of monetary union in Europe, concluded that although the broad membership of EMU made it highly vulnerable to asymmetric real shocks, EMU might succeed economically. This would greatly enhance the process of European integration and generate social and political benefits in the future. In addition, he believed that economic success of the euro would drive political integration.[54]

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[51] Agreeing with Mintz (1970, p. 33) "The major, and perhaps only, real condition for the institution of either (a common market or monetary integration) is the political will to integrate on the part of prospective members".

[52] In an interview with *The Region*, Federal Reserve Bank of Minneapolis, December 2001.

[53] See also Willet (1999b) on the Stability and Growth Pact, and Garber (1998) and Kenen (1997 and 1998b) on monetary policy before adoption of the euro.

[54] Obstfeld (1997, p. 2) noted that "with European economic and monetary union finally underway,

Eichengreen (1996a) argued that "EMU will happen if policymakers are convinced that currency stability is the only way to solidify the single market and that monetary union is the only way to guarantee currency stability. It will happen if there exists a viable package in which the French get EMU and the Germans get an increased foreign policy role in the context of an EU foreign policy".[55]

Peter Kenen (1998a) reasoned that US attitudes towards the EMU were strongly influenced by the words and actions of European officials involved in the monetary integration process. He held that "Americans tend to evaluate EMU in light of their own preconceptions. Because they repeatedly hear that EMU is a political project – a vehicle for promoting political integration – they conclude that there is no economic rationale for EMU. Helmut Kohl has made some extravagant claims for EMU – which he may truly believe – and they have inspired extravagant rejoinders on my side of the Atlantic". Thus, by characterising EMU as a stepping stone along the road to full political integration, US economists became more concerned with the political commitment of European leaders than with the economic arguments surrounding the single currency.

In December 1998, on the brink of the launch of the euro currency, Paul Krugman (1998a, p. 1) noted that "for seven long years since the signing of the Maastricht Treaty started Europe on the road to that unified currency, critics have warned that the plan was an invitation to disaster. Indeed, the standard scenario for an EMU collapse has been discussed so many times that it sometimes seems to long term eurobuffs like myself as if it had already happened".

To sum up, a significant proportion of the academic economists viewed the political nature of EMU as a likely future cause of its disintegration.

(2) The euro area as a non-optimal currency area

James Tobin (1998) provided a concise overview of the factors underlying many US

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potential fault lines are apparent. EMU, it is often said, is at bottom about politics, not economics. Political change is, however, an ongoing, dynamic process; it is a mistake to think that the visions motivating today's European leaders will be enough to sustain EMU indefinitely".

[55] Taken from the annual Finlay-O'Brien lecture delivered at University College, Dublin, Ireland on October 7th 1996 and elaborated in Eichengreen and Ghironi (1996) and Bayoumi, Eichengreen and von Hagen (1997). See also Eichengreen (1996b) and Makin (1997).

economists' scepticism towards EMU: the absence of an authority for centralised fiscal redistribution, sticky wages and a monetary policy objective with no account of employment, production or growth. His conclusion that the euro area is "much less equipped" than the US monetary union to deal with potential inter-regional or wider asymmetric shocks mirrored the initial US consensus of the euro area as a non-optimal currency area.[56]

However, in the second half of the 1990s, the discussion of European monetary unification shifted from investigating the fulfilment of the OCA-criteria by the euro area (usually compared to the US dollar union) towards a more critical view of the use of OCA-theory for assessing the costs and benefits of monetary unification. Did this theory really provide a proper framework to consider the merits and demerits of a monetary union of EU Member States?

The strongest objections against the standard use of the OCA-paradigm when assessing the future viability of the euro area were developed in a series of papers by Frankel and Rose (1996, 1997 and 2000). They argued that the OCA-criteria are endogenous. Once a country becomes a member of a monetary union, its economy adjusts to the new environment. Membership in a monetary union is likely to raise trade within the union and thus increase the correlation of the national business cycles, moving it closer to fulfil some of the OCA-criteria. The empirical work by Frankel and Rose gave strong support to this interpretation. Their conclusions cautioned against a mechanical application of the OCA-approach to judge the suitability of a country for monetary union membership.

Bayoumi, Eichengreen and von Hagen (1997), reviewing the literature on EMU and OCA theory, concluded that "OCA theory, while providing a useful template for research and helping to structure the debate over EMU, it remains difficult to estimate the projects benefits and costs". This conclusion supported the findings of Bayoumi and Eichengreen (1997b) and Eichengreen (1996b) that the use of OCA theory to evaluate EMU was severely curtailed by the difficulty in operationalizing this body of theory.[57]

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[56] See for example Frieden (1998) for a summary of optimum currency area theory applied to EMU. See also Dooley (1998).

[57] Bayoumi and Eichengreen (1997) tried to operationalize OCA theory by analyzing the determinants of exchange rate variability by relating it to asymmetric output disturbances, the dissimilarity of the

Kenen (1998a) argued that the debate about EMU based on OCA theory was misleading as the OCA approach concerned the choice between a floating and a fixed exchange rate regime while EMU represented a choice between the quasi-fixed exchange rates of the European Monetary System and the euro. In his opinion, by applying the OCA criteria to Europe, US economists became biased towards the EMU. The result was a high degree of misunderstanding in the United States of the economic costs and benefits of EMU.

Similarly, Frieden (1998) argued that the practical insights offered by OCA theory were limited by the difficulty to measure accurately the long-run dynamic effects of monetary unification and to estimate the welfare effects of a single currency.

When asked about the future of the world currency system in an interview in May 2002, Milton Friedman (2007, p.140) expressed deep concern about the euro: "From the scientific point of view, the euro is the most interesting thing. I think it will be a miracle – well a miracle is a little strong. I think it's highly unlikely that it's going to be a great success … But it's going to be very interesting to see how it works". Friedman stressed that lack of labour mobility among Member States like Italy and Ireland in the euro area would undermine a single monetary policy.

(3) The euro and the dollar: A struggle for dominance?[58]

The sharp fall in the value of the euro vis-à-vis the dollar in 1999-2001 – see Figure 2 – set off a vibrant debate about the euro and the dollar. Prior to the launching of the euro in January 1999, the discussion focused on the potential for a massive rebalancing of portfolios away from dollars and into euros. This forecast was founded on the arrival of a currency representing a zone of similar economic power as that of the United States and on the immediate potential of the euro to challenge the reserve currency status of the dollar. As an example, Fred Bergsten (1997b) argued that since the euro would create an integrated financial zone larger than the US, the euro would quickly rival and even surpass the dollar as the international reserve currency of first

composition of exports of different countries, the importance of bilateral trade linkages and relative economic size. Eichengreen (1996a), while stressing the usefulness of this approach for ranking candidates for EMU, admitted that it was impossible to say whether the costs and benefits dominate for an individual country or the group as a whole.

[58] Title borrowed from Kenen (2002).

choice.[59]

Other economists were more cautious in their forecasts. Paul Masson and Bart Turtelboom (1997) concluded on the basis of an econometric study that the incentives to hold the euro as a reserve currency were likely to be at least as great as for the Deutsche Mark previously.[60] The dollar would remain the dominant international currency for the foreseeable future due to inertia, as "once a currency gains a degree of acceptance, its use is apt to be perpetuated - even after the appearance of a powerful new challengers - simply by regular repetition of previous practice". Thus, in the absence of a political or economic meltdown in the United States, the dollar was likely to retain its current dominant reserve and transactions currency position. [61]

Offering a broader perspective of US economic fortunes in the 21st century, Krugman (2000, p. 173) noted that "while the euro surely will rival the dollar as an international currency, the benefits for Europe will be modest". This is consistent with Frankel (2000a) and earlier work by Krugman (1998a, 1999a) who viewed it likely that the dollar would lose gradually to the euro.

Both Eichengreen (1998d) and Krugman (1998b) questioned the benefits to the US from having the dollar as the global reserve country over the past half century. In a broadly similar analysis, Benjamin Cohen (2000) argued that the key drivers of the success of the US dollar; political stability, capital certainty, exchange convenience and a broad transactional network were probably not be challenged by a huge portfolio re-alignment in favour of the euro, due to prevailing inertia and a high degree of risk aversion.[62]

The underlying causes of the fall of the euro against the dollar in the period 1999-2001 gave rise to varying US interpretations. Eichengreen (2000a), reviewing the behaviour of the euro in its first year, noted that while the euro has failed to challenge

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[59] See Portes and Rey (1998) for non-American views on this topic. Bergsten (1997a, 1999) and Mussa (1997, 2000) also considered this issue.
[60] See also Prati and Schinasi (1997).
[61] See also Eichengreen and Ghironi (1996) for a historical analysis on the rise and fall of reserve currencies. Eichengreen held that the institutional structure of the European System of Central Banks would hinder the euro's international prospects. See also Scott (1998), Devereux and Engel (1999), Devereux et al. (1999) and Selgin (2000).
[62] On the distribution of currencies see Cohen (1998 and 1999) and Beddoes (1999). See also Frankel and Rose (1996, 1997 and 2000) for analysis of the impact of currency unions on trade flows.

the dollar according to the forecasts of Bergsten (1997b) and others, the euro has produced an immeasurably impact by creating wider and deeper European financial markets.[63] He argued that the 1999 decline of the euro "does not reflect the incompetence of the ECB or flaws in the design of Europe's monetary union. Rather, it is the response to cyclical asymmetries, between the US and Europe", reflecting the stronger economic performance of the US at that time.[64]

Dornbusch (2001c) offered an alternative interpretation, arguing that the weakness of the euro was due to a combination of three factors: first, the failure to launch the euro fully immediately on January 1, 1999 (euro coins and notes were not to be introduced until January 2002), second, the poor communication skills of Wim Duisenberg (the first head of the ECB), and finally, the different performance of the US and euro area economies ("the euro is weak because Europe is weak").

Explaining the rapid fall of the euro against the dollar during its first twelve months in existence, Feldstein (2000a) held that the decline throughout 1999 proved that the euro was unable to provide European producers with exchange rate certainty. The pre-1999 projections of the euro's strength were based upon political rather than on economic fundamentals. The very credibility of the euro had been undermined by the two pillar strategy of the ECB, which left "financial markets confused, an uncertainty that is compounded by the limited information that is revealed about the deliberations of the ECB and by the occasional tendency for the members of the ECB to speak in contradictory terms. It is exacerbated also by the apparent lack of agreement about the significance of the international value of the currency".[65]

Compared to most US economists commenting on the euro-dollar rate, Friedman held a relaxed attitude. When asked in an interview in May 2000: "Do you think that the depreciation of the euro is a bad sign?" [It was about $0.90 at that time], Friedman (2007, p.140) replied: "No, not for a second. At the moment the situation is very clear.

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[63] Eichengreen (2000a, p. 6) found the falling of bid ask spreads to US levels in the government bond market and the growth of the European corporate bond market impressive.

[64] Eichengreen (2000a, p. 2-3) noted the "the incompetence of the ECB or flaws in the design of Europe's monetary union" were made up of policy mistakes by an inexperienced ECB Executive Board, the failure of the ECB to release its inflation forecasts, policy disagreements among ECB officials, the exemption Italy was granted from the Stability and Growth Pact and the confrontational attitude of some national politicians such as the German Finance Minister Oskar La Fontaine.

[65] The Treaty of Maastricht does not give sole power to the ECB for the management of the euro's external value.

The euro is undervalued; the US dollar is overvalued. … Relative to the dollar, the euro will appreciate and the dollar will depreciate."

The management of the euro exchange rate attracted also the attention of Krugman (1999b) and Dornbusch (2001c). Both concurred that the seignorage benefits accruing to Europe as a result of the internationalisation of the euro were minor. Both argued that the euro area should adopt an attitude of benign neglect towards its exchange rate and instead focus monetary policy on domestic (pan-European) objectives like the Federal Reserve System.[66]

Kenen (2002, p. 4), viewing in retrospect the pre-1999 predictions of an early advent of a tripolar monetary system, noted that the euro-dollar exchange rate has not come to symbolise the struggle for global dominance by the two most powerful protagonists, but rather that “the switch to the euro is most apt to manifest itself as a growing flow demand for euro-denominated bonds, equities and other assets, rather than a once for all stock adjustment of the sort predicted by euro enthusiasts a few years ago”.

3. Why were the US economists so sceptical to the single currency?

The main finding of our survey is that US academic economists were critical of the single currency in the 1990s. By now, the euro has existed for a decade. The pessimistic forecasts of the 1990s have not materialized. The euro is well established. The euro has not created political turmoil in Europe. It has fostered integration of financial, labour and commodity markets within the euro area. Trade has increased and so has business cycle synchronization.[67] Inflation differentials are of the same order of magnitude as in the United States.

Why were US economists so sceptical towards European monetary integration prior to the physical existence of the euro? We suggest that several factors contributed to this attitude.

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[66] Krugman (1999b, p. 1) cites the findings of Portes and Rey (1998) that the sum of the gains accruing from seignorage to be no more than 0.2% of GDP.

First, the thinking of US economists was deeply influenced by the traditional OCA theory. This was the main analytical tool used by them for analyzing the benefits and costs of forming a monetary union. In short, the original OCA approach compares the microeconomic gains in terms of increased efficiency in cross-border transactions through the use of a single currency to the macroeconomic loss of national monetary policy independence through the surrender of the national currency.

The OCA paradigm gave a negative bias to the evaluations of the single currency by stressing a number of costs of unification while ignoring dynamic, political and institutional aspects.[68] All OCA-inspired studies of Europe, and there were many of them, concluded that the potential members of a common European monetary union simply did not fulfil the various criteria for an optimum currency area concerning labour mobility, across-border fiscal transfers, business cycle movements, incidence of shocks etc. Sometimes this result was combined with the qualifier that a core set of European countries was closer to an OCA than a wider geographical area including periphery countries like Greece and Portugal. A standard conclusion of this strand of work was that the United States was a better candidate for a monetary union than Europe.

Second, the OCA paradigm led US economists to apply a static ahistorical approach. US economists generally compared Europe of the 1990s with the US monetary union as the benchmark in their OCA-inspired studies. The use of this benchmark led to the observation that Europe was less flexible, less integrated, provided less union-wide fiscal redistribution mechanisms and exhibited less centralized political control than the United States, thus leading to the conclusion that Europe should avoid forming a monetary union. They made the mistake of comparing the ongoing process of monetary integration in Europe, with its backlashes, crises, economic and political tensions and challenges to find solutions, with the mature and stable state of US financial and monetary integration, ignoring that the US monetary union was the outcome of a long process of political, financial and economic unification.[69]

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[67] See European Economy (2008).

[68] See also DeGrauwe (2003, p. 58) on the bias of the OCA paradigm against unification: "The traditional theory of optimal currency areas tends to be rather pessimistic about the possibility for countries to join a monetary union at low cost".

[69] Rockoff (2000) concluded that it took the United States about 150 years to form an optimum currency area. Rockoff's conclusion suggests that the US monetary situation after the American

Seen from the perspective of the United States dollar union in the 1990s, the European attempts to create a single currency easily appeared to be inappropriate and inconclusive. However, the European process of monetary unification since the Delors report appears to be a much more rapid one than its US counterpart. Eventually, US economists came to acknowledge some of the "evolutionary" weaknesses of the traditional OCA paradigm in the work on the endogeneity of monetary unions.

Instead of comparing Europe before the introduction of the euro with the United States of the 1990s, the proper comparison would rather be with the future workings of the euro area. Such an approach should also consider if the US system of fiscal federalism would function more or less efficiently than the euro area system where fiscal policy is framed according to regional (national) preferences with the framework of the Stability and Growth Pact.

Third, the conventional OCA paradigm rests on a comparison between the costs and benefits of a fully flexible exchange rate and a permanently fixed rate. However, Europe never faced with the choice between these two extreme cases as a flexible exchange rate was not a serious option for the countries considering monetary union. Instead, the alternative to a monetary union of permanently fixed rates was a system of fixed but adjustable rates, sometimes described as semi-permanent exchange rates. This system was discredited in the 1970s, 1980s and early 1990s as it gave rise to devaluations, exchange rate realignments and tensions among European countries. Countries avoided as long as possible exchange rate adjustments. This experience was actually driving much of the process of monetary unification in Europe.

The cost-benefit calculus of US economists did not compare permanently fixed exchanged rates with a system of semi-permanent exchange rates because this was not in line with the OCA-paradigm. However, such a comparison would have been a more proper exercise than that between a monetary union and perfectly flexible exchange rates. Most likely, it would have given rise to a more positive view of the single currency. Thus, they rejected monetary unification without paying sufficient

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revolution in 1776, with different states issuing their own currencies, may be an interesting comparison with the European situation in the 1990s.

attention to the costs and benefits of the existing alternative monetary arrangement in Europe of semi-permanent rates.

Fourth and finally, many US economists believed that the single currency for Europe was primarily a political project, ignoring economic fundamentals. For this reason, they feared that the Europeans were building a badly designed monetary union with an expected short lifespan. In addition, the crisis of the European exchange rate system in the early 1990s strengthened US disbelief in monetary integration. In short, a permanently fixed rate was perceived as a bad political solution for the rigid European countries, believed to be unwilling to surrender their monetary sovereignty.

Of course, the single currency is a political project. It was not invented by the economics profession. The whole European integration project after World War II is driven by politics but this does not mean that the project is isolated from economic developments and economic thinking. Concerning the single currency, it implies that the OCA-theory is lacking in explanatory power.

Monetary history suggests that the predictive power of the OCA approach is extremely weak. Monetary unions have not been established according to the OCA criteria. The approach ignores the political and historical factors driving integration. The OCA approach is thus too narrowly defined in economic terms to interpret European monetary integration. It probably prevented US economists from a full understanding what was going on in Europe.

Allow us to speculate about two additional – probably minor - reasons for the US scepticism of the euro. First, we suspect that the US scepticism towards the euro was partially driven by political considerations. Some US economists may have feared that the euro would turn out to be a close competitor to the dollar and that EMU would lead to a Europe turning away from transatlantic cooperation, weakening the role of the United States on the global scene. This suspicion may have been fuelled by the fact that there were claims of this sort made in Europe in the 1990s.

Finally, economists are trained to find faults with proposals, to be critical, to have a scientific attitude. Given this propensity of our training, it may be fair to conclude that there is a pessimism bias in our world outlook. In addition, the market for pessimistic forecasts is probably more lucrative than for optimistic forecasts.

4. Concluding discussion

We have described the work by US economists on European monetary integration from the presentation of the Delors report in 1989 until the introduction of the euro as a physical "real" currency in 2002. We have highlighted the major issues dealt with by two groups of economists, those employed by the Federal Reserve System and those at US universities, the academic economists.

Our survey demonstrates that economists within the Federal Reserve System focused on the actual operation of the proposed common European central bank and its policies, describing it in fairly neutral and balanced terms. They held a more pragmatic view of the European common currency than the academic economists. They also targeted a less sophisticated audience than the academic economists, writing fairly short pieces. Usually, when reporting on the evolution of the new European central bank system, they applied a central bank perspective. They were basically positive towards European economic and monetary integration, at least compared to the academic economists.

The academic economists concentrated on the question: "Is EMU a good or a bad thing?" They searched the answer first of all with the help of the optimum currency area approach. Their OCA-inspired research resulted in a common view: potential EMU Member States were further away from a well functioning monetary union than the United States because of the lack of a pan-European fiscal redistribution mechanism, the low labour mobility in Europe and a higher frequency of regional asymmetric shocks in Europe than in the United States. In particular, weak fiscal federalism in the EU was a source of pessimism for the future of EMU.

The debate underwent significant changes, continuously evolving in response to actual events, starting in the early 1990s from a rather sceptical view of European monetary integration as not likely to come about, at least not according to schedule, to an acceptance of the euro in the late 1990s, sometimes combined with a forecast that it will not last very long.

The sceptical tone found in the writings of U.S economists in the first half of the 1990s was fostered by actual events in the European integration process. The difficulty in ratifying the Maastricht Treaty, the collapse of the narrow ERM exchange rate bands in 1992, and the economic and political constraints imposed by the convergence criteria featured heavily in the reasoning that the single currency was not a viable endeavour.

The December 1995 summit of the European Council setting the date for the launch of the euro represents a turning point in the US opinion on EMU and the single currency. From then on, the discussion moved away from debating the prospects of EMU actually being achieved towards an acceptance of EMU as an emerging reality according to the given time table. This awareness is also mirrored in the shift away from the use of the traditional optimum currency area theory towards a more broadly based examination of the future effects of European monetary union on trade and integration. The conventional OCA paradigm as a vehicle for analysis of the European monetary integration process was challenged to growing extent.

Still, the OCA approach held its grip over US views on the euro throughout the 1990s. We suggest that the use of the OCA paradigm was the main source of the US pessimism in the 1990s towards the single currency. The OCA approach was biased towards the conclusion that Europe was far from an optimum currency area. The OCA paradigm inspired to a static view ignoring that the process of monetary unification is time-consuming. The OCA view ignored the fact that the Europe was facing a choice between permanently fixed exchange rates and semi-permanent fixed rates. The OCA approach led to the view that the single currency was a political construction of no or weak economic foundation. In short, by adopting the OCA-theory as their main engine of analysis, US academic economists became biased against the euro.

Actually, it is a bit surprising that US economists that live in a large monetary union and enjoy the benefits from monetary integration, were (and still remain) critical toward the euro. The fact that US economists took (and still take) the existence of a single dollar currency for their country for such a self-evident phenomenon – not one US economist, inspired by the OCA-approach, has proposed a break-up of the United States monetary union into smaller regional currency areas as far as we have seen.

Perhaps we should take this as a positive sign for the future of the euro: once established, it eventually becomes a normal state of affairs - not even contested by economists in the United States.

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Table 1. Central steps towards the euro 1989 - 2002	
Date	**Event**
February 1986	The Single European Act is signed
April 1989	The Delors Committee publishes report which calls for the establishment of a single European currency through a three stage process.
June 1989	The Madrid Summit of the European Council agrees that Stage 1 of EMU will start on July 1st 1990 and calls for an intergovernmental conference to work on subsequent stages. Stage 1 includes the completion of the internal market and the removal of all obstacles to financial integration.
October 1990	The Rome Summit of the European Council agrees that Stage 2 of EMU will begin on 1st January 1994.
December 1990	The Dublin Summit of the European Council marks the beginning of the intergovernmental conferences on EMU and political union.
February 1992	Signing of the Maastricht Treaty.
June 1992	A referendum in Denmark rejects the Masstricht Treaty.
September 1992	Britain and Italy are forced to abandon the Exchange Rate Mechanism (ERM).
July 1993	Member States agree to widen the narrow band in the ERM from 2.25% to 15%.
January 1994	Stage 2 starts. The European Monetary Institute comes into operation and begins the move from the co-ordination of national monetary policies to the transition to a common monetary policy. Economic convergence is strengthened through adherence to the "convergence criteria" as set out in the Treaty of Maastricht.
May 1995	The European Commission adopts a Green Paper "On the Practical Arrangements for the introduction of the Single Currency".
December 1995	The Madrid summit of the European Council reaffirms January 1st 1999 as the date for the irrevocable locking of exchange rate, thus for the introduction of the euro. The euro is officially adopted as the name for the new single currency.
May 1998	Special meeting of the European Council decides that 11 Member States satisfy the conditions for adoption of the single currency.
January 1999	Stage 3 begins. The exchange rates of the participating nations are irrevocably fixed and the euro begins to trade on financial markets.
January 2001	Greece becomes the 12th Member State to adopt the euro.
January 2002	Euro notes and coins enter into circulation in all participating Member States.

Table 2.
Chronology of the crises in the European Monetary System, 1991-1993

Date	Event
November 14^{th} 1991	The Bank of Finland, which had maintained an ECU peg, is forced to devalue the markka by 12% due to the collapse of its Soviet trade and a domestic banking crisis.
June 2^{nd} 1992	The Maastricht Treaty is rejected in Denmark
August 26^{th} 1992	The pound sterling falls to it Exchange Rate Mechanism lower limit.
September 8^{th} 1992	The Finnish markka's ECU link severed.
September 13^{th} 1992	The Italian lira devalued by 7% against other ERM currencies.
September 16^{th} 1992	British membership of ERM suspended. Italy suspends foreign exchange market interventions and allows the lira to float. The Spanish peseta is devalued by 5%.
September 20^{th} 1992	The Maastricht Treaty is narrowly accepted in France.
November 19^{th} 1992	Sweden abandons its ECU peg.
December 10^{th} 1992	Norway abandons its unilateral ECU peg.
January 30^{th} 1993	The Irish punt is devalued by 10% within the ERM.
May 14^{th} 1993	The Spanish peseta is devalued by 8%. The Portuguese is devalued by 6.5%.
July 30^{th} 1993	European governments opt for a widening of the narrow band from 2.25% to 15% thus acknowledging the unfeasibility of the narrow band.

Source: Eichengreen (1994, p. 96-101)

Table 3. A simple guide to Federal Reserve economists on EMU.

1989-1996		1996-2002	
Topics:	**Author:**	**Topics:**	**Author:**
1992 and the move towards monetary union	Hoskins (1989) Graboyles (1990) Hunter (1991) Boucher (1991) Hildbrandt (1991) Glick (1991) Walsh (1992) Chriszt (1991)	Architecture of the ESCB	Little (1998) Bertaut and Iyigum (1999) Goodfriend (1999) Wrase (1999) Wynne (1999a/b) Faust et al. (2001) Bertaut (2002) Meade and Sheets (2002) Hetzel (2002)
EMU: Will it fly? (Likelihood of a single currency)	Chriszt (1992) Craig (1994) Leahy (1994) Johnson (1994) Edision and Cole (1994) Aglietta and Uctum (1996) Pollard (1995)	Costs and benefits of EMU	Spiegel (1997) Jordon (1997) Eudey (1998) Klein (1998) Carlino (1998) Whitt (1997) Stevens (1999)
		Impact of the euro on the dollar	Signalla and Gould (1997) McDonogh (1997) Volcker (1997) Marion (1998) Summers (1997) Zaretsky (1998) Meyer (1999) Gramlich and Wynne (2000, 2002) Pollard (2001) Rodgers (2002)

Table 4. A simple guide to US academic economists on EMU.			
1989-1996		1996-2002	
Topics:	**Author:**	**Topics:**	**Author:**
The Maastricht Treaty (including EMS and ESCB)	Giovanni, Cooper and Hall (1990) Dornbusch (1990, 1993) Meltzer (1990) Arndt and Willet (1991) Froot and Rogoff (1991) Frankel (1992, 1993) Branson (1993) Folkerts-Landau and Graber (1992) Letiche (1992) Kenen (1992, 1995a/b) Feldstein (1992a/b) Bayoumi and Eichengreen (1993) Eichengreen and Wyplosz (1993) Eichengreen and Frieden (1994) Eichengreen (1992b, 1993b, 1994a/b) Wachtel (1996)	Leadership and political issues in the European Union	Feldstein (1997a/b, 1998,, 1999, 2000a/b and 2001) Feldstein and Feldstein (1998) Eichengreen (1996a) Eichengreen and Ghironi (1996) Eichengreen and Von Hagen (1996) Bayoumi et al (1997) Obstfeld (1997, 1998) Kenen (1997, 1998a/b) Frieden (1998) Krugman (1998a) Calomiris (1998) Posen (1999) Willet (1999b and 2000) Schwartz (2001)
Optimum currency area theory	Sala i-Martin and Sachs (1991) Eichengreen (1990a, 1991, 1992b) Bayoumi and Masson (1991) Inman and Rubinfeld (1992) Bayoumi and Eichengreen (1993) Frankel and Rose (1996)	EU as a non-optimal currency area	Bayoumi et al (1997) Bayoumi and Eichengreen (1997) Kenen (1998a) Dooley (1998) Frieden (1998) Willet (1999a) Feldstein (2000a)
Fiscal federalism and lessons from the US	Giovanni, Cooper and Hall (1990) Eichengreen (1990b, 1992a 1994a) Inman and Rubinfeld (1992) Eichengreen and Von Hagen (1996) Frankel (1993) McKinnon (1994) Hutchinson and Kletzer (1995) Krugman (1995)	EU as a non-optimal currency area	Bayoumi et al (1997) Bayoumi and Eichengreen (1997) Kenen (1998a) Tobin (1998) Dooley (1998) Frieden (1998) Willet (1999a) Feldstein (2000a)
The political economy of EMU	Feldstein (1992a and 1992b) Schwartz (1993) Gabel (1994) Cohen (1994) Eichengreen and Frieden (1994) McKinnon (1995) Dornbusch (1996a/b)	The euro and the dollar	Eichengreen (1998 all, 2000a) Eichengreen and Ghironi (1996) Eichengreen and Wyplosz (1998) Eichengreen and Frienden (1998) Bergsten (1997a/b, 1999) Prati and Schinasi (1997) Masson and Turtelboom (1997) Mussa (1997, 2000) Feldstein (2000a) Krugman (1998a/b, 1999a/b and 2000) Frankel (2000a) Cohen (2000) Dornbusch (2001c) Kenen (2002)

Figure 1. Frequency of publications on EMU and the single currency

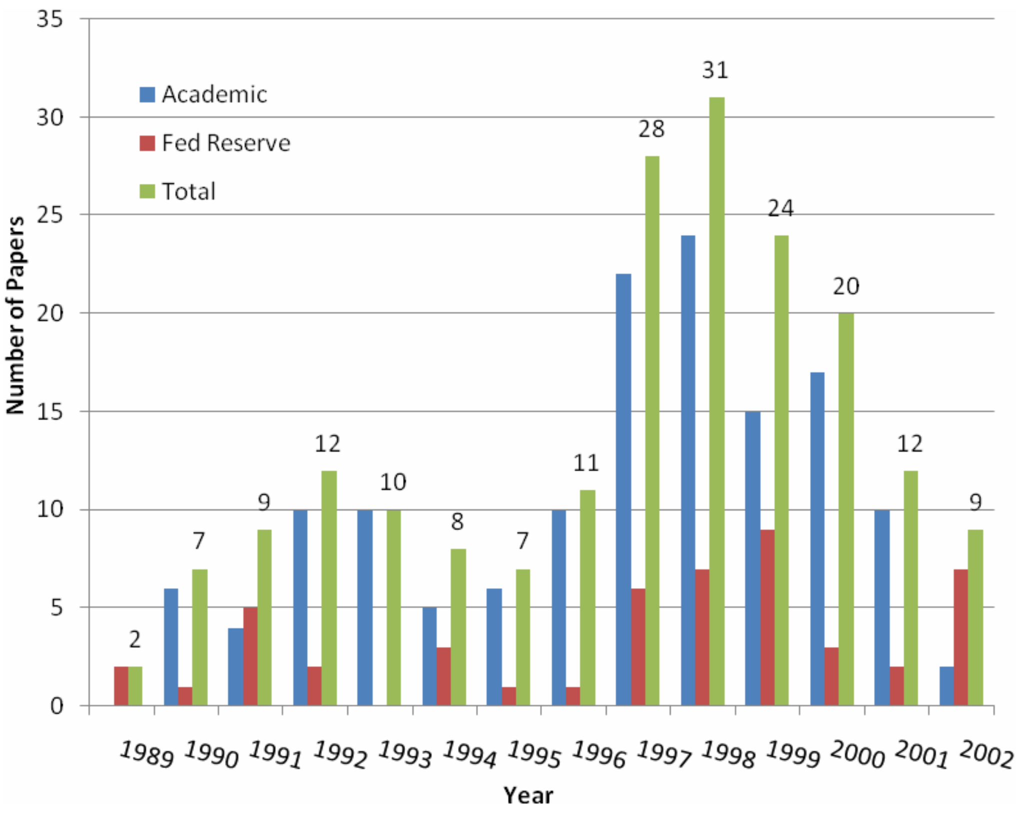

Figure 2. The euro-dollar exchange rate, 1999-2002.