Discipline or external balance?

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Abstract

While there is a huge literature on exchange rate systems since the classical gold standard, less research has been devoted to comparisons of the different arguments that guided the choices. While the origin of the international gold standard in the 1870s was a result of silver coins disappearing from circulation due to rising silver prices, the gold standard has later been interpreted as a quest for monetary discipline. This discipline argument was introduced by the end of WWI as a support for a restoration of the gold standard. Its failure led to an emphasis on the need to avoid external imbalances, which came to the fore in the preparations of the Bretton Woods system. The balance argument was also central in the early discussions of a monetary union in Europe, but with the critique of Keynesianism it was superseded by the disciplinary argument which became determinant for the design of EMU.

Key words: exchange rates, Europe, gold standard, EMU

JEL code: B17, B27, F31, N13, N14

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Introduction

The purpose of this paper is to disentangle the economic arguments for choosing a specific monetary arrangement at certain historical junctures in Europe since the 19th century, with the more specific focus on understanding the reasons for the design of the EMU. There is a large literature on the creation of EMU but primarily dealing with the political economy or negotiations while giving the economic ideas at most a secondary role (e.g., Dyson 1994; Dyson and Featherstone 1998; McNamara 1998; James 2012). Our argument is that paradigmatic shifts in economic thinking have been decisive in the shaping of different monetary arrangements.

In retrospect, it seems as if a pendulum has swung between two major lines of arguments: One that argues that the choice to adhere to an international fixed exchange rate system in itself not only signals, but also fosters monetary discipline to the extent that international long term imbalances can be avoided. The other view argues that such long term imbalances may indeed arise under any international fixed exchange rate system. Unless the market, through capital flows, match such imbalances between surplus and deficit countries, an institutionalized lender of last resort is required. Imbalances are caused by divergence in price and cost trends, which typically arise due to structural differences between countries at different income levels, and if not adjusted by exchange rate changes imbalances will remain and constrain economic growth.

The implications of the arguments are quite different. The discipline argument favours rule based monetary policy under a fixed exchange rate and requires that nations adjust by help of the domestic policy, usually forcing countries with deficit on current account to 'internal devaluation.' The argument about the problem of imbalances, for short the balance argument, sees the nominal exchange rate as a tool for adjustment, either by floating and a more continuous adjustment or by 'pegged but adjustable exchange rates'. Lacking such possibilities to adjust the exchange rate in an international monetary system implies the need for an international lender of last resort to overcome the problem of imbalances. Under the classical gold standard cooperation between central banks provided such a function at critical moments (Eichengreen 2008). In the interwar period efforts to provide an international lender of last resort largely failed (Kindleberger 1973), while in the postwar period the International Monetary Fund has taken the lead in that function.

We critically discuss arguments at four different junctures in an international or European context. First, during the formation of the gold standard. Second, in the interwar period. Third, in the formation of the Bretton Woods system. And fourth, during the road to the EMU. Emphasis is on the first and fourth junctures, where crucial voids pertain to received views.

The pendulum between the discipline argument and the balance argument certainly can be traced during the 20th century. In the 1920s, with the restoration of the gold standard, the discipline of fiscal prudence had echoed through the international conferences. The external balance problem as well as the aim of full employment were major concerns in the preparations for the Bretton Woods system during the WWII. This awareness about the balance problem – a lesson from the inter-war period – fades away in the theoretical and political discourse during the 1970s and 1980s. The idea of a rule-based monetary policy with disciplinary effects came to dominate in the preparations for the economic and monetary union in Europe. While the pendulum obviously swung between the arguments during the 20th century, it is near at hand to track it further back in time, to the classical gold standard and its "rules of the game" as signalling a disciplinary regime. However, even if this has been a common view in retrospect, the argument of discipline was not guiding contemporaries in the implementation of the gold standard.

Broadly, the contribution of the paper is threefold: first, to highlight the paradigmatic differences underpinning international monetary arrangements; second, that the argument of the gold standard as a disciplinary device came in retrospect and served purposefully in other junctures; third, while a huge literature describes the process to EMU (e.g. Moravcsik 1998; Dyson and Featherstone 1999; James 2012), including its dependence on neoliberal policies (McNamara 1998; Magnusson and Stråth 2001), we trace its roots in the theoretical critique of Keynesianism and the "monetary approach to the balance of payments."

The sources employed for this paper consist of contemporary literature and official documents, the latter in particular pertaining to the postwar European integration.

The issue of a common European currency in the Nineteenth century

In retrospect the nineteenth century became the century of the gold standard although most economies were not on gold for most of the century. Conventional wisdom today tells that countries which joined the gold standard received “a good housekeeping seal of approval” for economic conduct and public debt management, much due to the credibility which was inherent in adopting the gold standard as it in itself provided a strong commitment mechanism (the quote from Bordo and Rockoff 1996; see also e.g. Bordo and Capie 1993: 7-12; Bordo and Kydland 1992; Eichengreen 1989; Meissner 2004). The question thus is to what extent countries chose to go on gold to discipline the monetary policy or to become more integrated in international trade and gain access to international capital markets.

In reality the switch to the gold standard was not that dramatic, mostly because countries already were on some kind of specie standard, either silver standard or a bimetallic standard. The classical economist John Ramsay McCulloch in the late 1850s indeed predicted what should come:

> “The great increase in the supplies of gold from California and Australia, coupled with the extraordinary demand for silver in India and China, having raised the value of the latter, as compared with that of the former, gold has come into very extensive use as money in France. There seems, indeed, to be little doubt that it will very speedily be as generally used there as in England. Large amounts of French silver currency have been exported; and it will, most likely, become subsidiary to gold, and be employed only in making small payments.” (McCulloch 1858: 430)

McCulloch mentioned that most classical economists had preferred either gold or silver but favours were divided between the two. One might presume that the gold points would be narrower than silver points and that the disciplinary effect should have been larger for gold, but at least in the mid-19th century freight rates for bullion were mostly based on value and not weight, why “the points” should have been similar. Jevons the marginalist, writing a decade after McCulloch, found arguments for silver or bimetallism strong “*in theory*…But in *the practical aspect* the subject looks very different, and I am inclined to hope for the extension of *the single gold standard*”(Jevons [1868]1884: 306). It thus seems that neither gold nor silver had certain features that better allowed the respective metal to serve as an anchor, as also found by Flandreau (1996). Most international transactions were carried out without specie transfers, which had been the case since long before the international gold standard.

The mid-nineteenth century provides a good starting point for studying arguments for and against international monetary regimes. The Latin Monetary Union (LMU) was created in

1865 and pan-European discussions were held on monetary problems and the adoption of a common European currency from 1850s and onwards.

Among the stylized facts of the gold standard is that it emerged spontaneously as countries joined. That is only partly true since it was prepared by a whole series of international conferences. The first one was in connection with the Great Exhibition in London 1851 which was followed up at the statistical congresses in Brussels in 1853 and Paris in 1855. The idea was to harmonize money as a unit of account, i.e. as a measure. To overcome difficulties in calculating values between full coins and token coins of different currencies the metric system was pushed by the French delegates (and adopted by many countries in the following decades with some notable exceptions, such as the UK). But to harmonize measures of money, a prerequisite was also that the content, weight and denominations of coins were aligned between currencies. The 1855 statistical meeting in Paris did not lead to any common plan but delegates from all countries signed a declaration recommending their respective governments to aim for coin conformity. Discussions and committees continued to investigate the issue and the same claim was again made at the statistical congresses in Vienna 1859 and in Berlin 1863. On the latter delegates from all countries attending the meeting voted unanimously that the monetary question (metallic content, relationship between silver and gold coins, weights etc.) for a common system should be investigated on the national level by each government. From these statistical congresses emanated the specific meetings on a common European monetary system. The focus on harmonizing measures and weights turned into a quest for universal coinage not only for the European countries but also for the US. A British proposal was launched in Berlin 1863, requiring adoption of the metric system, and with four national currencies on both silver and gold as reference units. Paradoxically the American delegates objected and the proposal fell, since “the sentiment for a single gold standard had gained too much headway, especially among the nominally bimetallic states” (Russell 1898: 22)

Given the limited supply of gold, it may seem odd that so many countries were planning to, and also ultimately did, implement a gold standard that would cause deflation. In the perspective of today, countries might have recognized an advantage with the increased discipline implied by the supposedly narrower gold points. But that was not the reason. The context in the 1850s and 1860s was the opposite. Gold discoveries in the US had dampened gold prices in terms of silver, and silver coins began to be taken out of circulation as agents could make arbitrage profits from the difference in the silver to gold ratio (Flandreau

1996:879; Russell1898:47). Thus the step from a silver to a gold standard was less costly than ever, especially as this was one solution to the problem of the outflow of silver coins. Silver or gold, or both, was simply not a question of discipline. Discipline was a question of convertibility to any specie (see e.g. Mill [1848] 1965: 558) and unbacked paper money were not on the agenda of the day.

The formation of the Latin Monetary Union (LMU) was a result of the inconvenience that silver coins were taken out of circulation due to falling gold prices, plus the problems caused by the different silver content of the coins of the neighbouring countries of Belgium, France, Italy and Switzerland. Clearly France was the driving force behind the union, to which the Vaticans joined in 1866, Greece and Romania in 1867. The French extended the invitation to join the LMU to Prussia and the US, keeping especially the latter closely informed of the development of the LMU. USA was also represented with delegates at all meetings that took place, such as in connection with the world exhibition in Paris 1865 where the first session was entitled: "Preparatory Conference Relative to the Establishment of an International System of Measures, Weights and Coins". This outspokenly aimed at a universal monetary system through universal unification of coinage for large parts of Europe and the US.

Of course, the union also was a political economy project and the more states that entered would serve to create alliances in economy and politics. The economic rationale was still the issue of solving frictional problems in trade that were resulting from diverse monetary systems. For the following conference in Paris 1867 all delegates had agreed to the nine-point programme of the preparatory committee

> "…as a means for securing international uniformity in coinage:
>
> 1. An identical unity in the issue of gold coins by all nations.
> 2. The desirability of having such coins uniformly nine-tenths fine.
> 3. The desirability of having for each government pieces of equal value with pieces in other states.
> 4. Recommending the coins of the Latin Union as the basis of a general monetary system.
> 5. Recommending the five-franc piece as a unit.
> 6. Uniform coins of each country to be legal tender in all the other countries.
> 7. The desirability of abolishing the double standard where it exists.
> 8. The desirability of using the decimal system everywhere.
> 9. The desirability of agreeing upon common measures of control." (Russell 1898:46)

Again the bimetallic standard, on which the LMU rested with France as the major guarantor of the system, was unwanted. In preparation for the 1867 meeting the French envoy wrote to the delegate of the US that the treaty of the union: “had a sole object, that of putting an end to the abnormal disappearance of fractional silver money.” (Russell 1898: 38-39). The wish to apply a pure gold standard raised new problems, most notably what became known as “the silver question”.

The “silver question” was the recognized problem of how the choice of a reserve metal affected its price. To go from silver and/or bimetallism to gold would mean a precipitous decrease in the silver price when candidate countries jointly began to sell out their silver in a scramble for gold. As the problem carried the features of a “pyramid scheme”, the first movers would gain at the expense of the late movers, it was actually deemed that an international coordination of the question was needed. Despite its advanced plan for international monetary cooperation, including the switch to gold, the meeting did not succeed in a general agreement. The delegates from Prussia, satisfied with the economic benefits of the progressing integration of the German states, which were operating on a silver standard, hesitated to partake in the LMU and wanted to be sure to be able to carry out the switch to a gold standard. The delegates from the Scandinavian countries, which were dependent on their trade with the German states and still on a silver standard, awaited the decision of Prussia. Most importantly Great Britain, the only country besides Portugal at the time on a gold standard, declared they had no intention to adapt to the LMU system in weights, measures, neither to adopt the metric system. (Russell 1898: 73-74)

With hindsight, a unified European monetary system in the 19th century might seem as a lost case already from the outset, but its fate was far from given. While the British Pound Sterling was internationally important due to the power of the Empire and the role of the London money market, the French gold coin was adopted in continental Europe and even adopted as currency, for example by Piedmont in 1816, Belgium in 1832, Switzerland in 1850 and Italy in 1862. Anticipating the debate a century later, there was even a French proposal for a common currency, named “Europe” (Einaudi 2000). Economists, merchants and chambers of commerce in the participating countries were all positive, even in Great Britain and the German states. Bankers, on the other hand, were united against changing monetary standards as well as the nationalist movements, which were on the rise in Europe (Einaudi 2000:284-5). The meeting in Paris 1867 led countries to change their legislation in order to promote the change to a gold standard; Norway passed a law allowing for gold reserves and Bank of Norway became in 1869 the first central bank to massively substitute gold for silver. Special committees instigated in Sweden and Denmark as result of the meeting laid the foundations for the switch to the gold standard and the forming of the Scandinavian Currency Union in 1873, which Norway joined in 1875 (Russell 1898:103; Talia 2004). Still, as stated above, the Paris meeting in 1867 did not result in the adoption of a universal currency or the adoption of the single gold standard.

The international gold standard

Much literature on the international classical gold standard in retrospect views this system as emerging from the British success and leadership of being a first mover on gold. The literature also, especially since the 1970s, views the gold standard as a system imposing monetary discipline (Bordo 1984; Bordo and Capie, 1993; Giovannini 1995). Arguably this view on the classical gold standard is a result of a combination of a pure Anglo-Saxon perspective coupled with the search, provoked by the inflation in the 1970s, for a model that could provide monetary stability. The origin of the gold standard, and the wish of countries to adopt the gold standard, had little to do with a wish to signal prudence and monetary discipline. Rather, it was based on the importance of trade networks and a desire to reduce transaction costs caused by different monetary standards.

Just as merchants and policy makers dealing with commerce were positive towards an international monetary arrangement in the late 1860s, so were representatives from different regions in France for adopting the monetary standard of their main trading partners, were it gold, silver or bimetallism (Flandreau 1996:880). Similar considerations were prevalent elsewhere. Many countries awaited the decision of their main trading partners before changing the monetary standard. This is demonstrated by the fact that when Germany had decided to go on gold in 1871, others followed suit. A case in point were the Scandinavian countries that furthermore formed a regional currency union on basis of the gold standard in 1873. The reason was outspokenly to encourage trade and the Scandinavian currency union was an alternative at hands when the discussions about the French proposal for a European currency had stranded. The Latin monetary union had not been an option since Scandinavia's main trading partners, the German states and Great Britain, were outside. It should be noted that the Scandinavian currency union did enhance market integration, especially when notes denominated in the krona became accepted as means of payments in all three countries in 1886 (Øksendal 2007; Talia 2004). In an Anglo-Saxon perspective, countries' joining of the gold standard was a natural choice given the dominance of the British Empire and London's position as the world's financial centre.

The reason gold won over silver as the monetary standard is usually attributed to the outcome of the Franco-Prussian war and the reparations that Prussia forced on France in 1871. Although the payments only to a marginal extent were made in gold, the general idea is that this gave Germany the funds needed to adopt the gold standard. France, still on a bimetallic standard, was eventually forced to follow suit and refused to buy silver for reserves, as a result of the falling silver price and the increased gold price (Russell, 1898:107).

The problem with this interpretation, however, is that France successfully had kept the bimetallic standard for 65 years, due to an inbuilt stabilizer in the arrangement. This stabilizer was the arbitrage occurring between gold and silver so that monetary holdings adjusted endogenously and absorbed changes on the market for bullions (Flandreau 1996: 866). Thus, even if Germany sold silver, it was first when France, as a way of getting back at Germany, stopped buying silver in 1873 that silver prices fell and French bimetallism ended (Flandreau 1996; Oppers 1996). Thus the adoption of the international gold standard was a result of historical events and political decisions, not of any quest for its disciplinary role. Still the idea of the classical gold standard as implemented for its disciplinary role has been prevailing in many descriptions of the classical gold standard in retrospective.

Monetary arrangements in the interwar period

One of the most influential accounts on the working of the classical gold standard is the intermediate report in 1918 by the British Cunliffe committee. The focus of the report is the re-adoption of the gold standard, as it was believed to have worked in the pre-WWI period. The report established what became the conventional wisdom on how the gold standard worked: it was guaranteed by the fixed price to gold and managed by the Bank of England's discount changes to steer gold flows in accordance with the price specie flow mechanism, whereby trade imbalances were settled by shipments of gold and currencies (Eichengreen 2008: 26). The report also mentioned the problem of a "permanently adverse trade balance" but argued that also this would be taken care of by alterations in the Bank's discount rates as this "led to a general rise of interest rates and a restriction of credit." This rise in the interest rates would in the end make domestic prices fall and correct the deficit in the current account (Cunliffe Committee 1918 §§ 2-7). Thus the Cunliffe Committee clearly advocated the strategy of internal devaluation, which in turn is a consequence of the discipline argument.

The Cunliffe Committee reports (the preliminary in August 1918 and the final in December 1919) read like a blueprint of the theoretical construction of how the gold standard worked from the British perspective. The reports, naturally, also concerned British interests. They were meant to facilitate trade and exchanges and, more importantly, to preserve London's position as a financial centre. It even included the step to centralise gold reserves in Bank of England, first nationally but also internationally. The gold standard was a necessity as it would guarantee the stable currency value that was instrumental for trade and financial markets:

> "We have found nothing in the experiences of the war to falsify the lessons of previous experience that the adoption of a currency not convertible at will into gold or other exportable coin is likely in practice to lead to overissue and so to destroy the measure of exchangeable value and cause a general rise in all prices and an adverse movement in the foreign exchange." (Chancellor of the Exchequer, Mr. Chamberlain, on presentation of the Final Cunliffe Report, as quoted in Federal Reserve Bulletin 1920 p.142)

The focus on the gold standard as a force for monetary discipline to curb overissuance of notes and the concomitant volatility of exchange rates was clearly a response to the inflation with an un-backed currency during the war. Concerns about exchange rate volatility was one of the most important issues for economists and policy makers in the following years. The Swedish economist Gustav Cassel in these years became one of the very influential architects of the interwar gold standard, and he fully supported going back on gold as a solution to the fluctuations of exchange rates, and for curbing inflation (Cassel 1918, 1920).[1] The problem was that while the money supply of most countries had increased their debt had increased as well, but also gold prices had increased. As pointed out by another influential Swedish economist, Knut Wicksell, this made it even more painful for countries to readopt the gold standard. A deflationary pressure on gold prices would be necessary in order to restore the

[1] The economic historian Eli Heckscher was also in favour of the disciplinary force of the gold standard, so much so that he triggered a run on the gold reserve of the Swedish central bank *Riksbanken* in 1920 (Fregert 2013).

gold standard, or to put it differently, gold prices had to return to their pre-WWI level (Wicksell 1919).

The Cunliffe committee's proposal to readopt the gold standard was widely supported as the way to encourage trade. Even if it was recognized that this put a stress on the indebted nations of Europe, it was seen as essential for getting economies back into order. To make the gold standard work as before, countries should again allow free gold flows, fix the currency to gold, put a limit on fiduciary issue and reduce government spending. In this view the gold standard was a prerequisite to solve the debt problem that was caused by the war.

This view was, however, not adopted by the international financial committee of the League of Nations in Brussels 1920. Even if the financial committee shared the aim of a return to gold, it did not suggest a quick fix. It was recognized that the debt problem had to be solved, and this was the responsibility of each participating nation. The lack of an anchor, such as gold, was part of the problem. The different needs focused by the participating nations made the resolutions adopted quite inconsistent in monetary and financial issues. Readopting the gold standard was stated in paragraph VIII of the *Resolutions proposed by the commission on currency and exchange* and adopted unanimously by the conference, it stated: "It is highly desirable that the countries which have lapsed from an effective gold standard should return thereto." (League of Nations, 1922 p. 225). There was a general fear that monetary issuance and credit creation would continue to increase and feed an inflationary spiral without the gold standard. Further, it was agreed that inflation prevented recovery and created economic problems that forced countries to continue to indebt themselves.

> "Where this additional currency was procured by further 'inflation' (i.e. by printing more paper money or creating fresh credit) there arose what has been called a vicious spiral of constantly rising prices and wages and constantly increasing inflation, with the resulting disorganization of all business, dislocation of the exchange a progressive increase in the cost of living, and consequent labour unrest." (League of Nations, 1922 p. 223)

On the other hand the following paragraphs IX to XII all concerned the difficulties of returning to gold, stating:

> "It is useless to attempt to fix the ratio of existing fiduciary currencies to their nominal gold value, ..." and "The reversion to, or establishment of an effective gold standard would in many cases demand enormous deflation …", "Deflation, if and when undertaken, must be carried out gradually, and with great caution; otherwise the disturbance to trade and credit might prove

> disastrous.", "We cannot recommend any attempt to stabilize the value of gold and we gravely doubt whether such attempts could succeed", "We believe that neither an International Currency nor an International Unit of Account would serve any useful purpose or remove any of the difficulties from which international exchange suffers to-day." (League of Nations, 1922 p. 225)

These points show a serious concern about the possibility to return to gold under the prevailing circumstances, and this was stated in 1920 before the deflationary crisis in 1921-22 - a crisis which largely can be attributed to some countries' attempts to reinstate the gold standard.

At the Genoa conference in 1921-22, delegates from the participating countries adopted the British proposal to readopt the gold standard in accordance with the Cunliffe Committee's recommendation. It should furthermore be noted that this conference was carried out in the midst of the severe deflationary crisis. At the conference the position of Britain and the formerly neutral countries (Scandinavia) opted for the earliest possible return to the gold standard whereas debt struck countries in continental Europe were more hesitant to instantly get back on gold. The fact that the gold advocating economist Cassel was influential and acted forcefully on the Genoa conference probably also contributed to the readoption of the gold standard as the solution (Fink 1984: 234-7). The Genoa positions were in stark contrast to those a decade later, on the London meeting 1933, in the middle of the depression, when the continental Europe still opted for the gold standard while Britain and the US wanted freedom to pursue more expansive policies (Clarke 1973:2). Hence there was a reversal of positions among countries between the 1920s and 1930s: the hard liners had turned soft, and vice versa.

The changing views on the gold standard between the two conferences were clearly related to the experiences during the intermediary decade. For Britain and other countries that abandoned gold early in the Great Depression, it was obvious that the solution to the problems of indebtedness and diminishing trade was not a return to the gold standard. Countries that had experienced various degrees of inflation in the early 1920s, such as France and Germany, were more reluctant to leave the gold standard. France had moreover amassed, without monetizing, massive gold reserves and initiated the gold bloc. Germany continued with the fixed exchange rate but implemented controls on both capital and current accounts. In the end the gold standard had to be abandoned as the cost of keeping it was too high (Eichengreen 1992).

The interwar period began with dreams about the resurrection of the worshipped years before 1914 by help of the gold standard. It was the disciplinary effects of the gold standard, and of fixed exchange rates, that were focussed. But the dreams ended with the nightmare of the Great Depression. From an economic point of view it is possible to see the implementation of the Tripartite Agreement in 1936, when France, UK and the US agreed to help each other to stabilize their respective currencies, as an awakening of the insights about the balance problem and hence an anticipation of the discussions that prepared for the Bretton Woods system (Clarke 1977).

Bretton Woods and external balance

In the preparations for the post-war Bretton Woods system, Keynes tried to avoid deflationary traps and at the same time reduce the need for exchange rate changes by making surplus and deficit countries obliged to share the responsibility for achieving international balance. In summary, the argument runs: the less financing the surplus countries are willing to provide and/or willingness to expand, the more flexibility is needed in the exchange rates. Otherwise the outcome would be deflationary and that, in the words of Keynes, would result in the return to “the evils of the old automatic gold standard” (Keynes 1980: 143). Crucial in the British (Keynes) plan, which had the aim to guarantee liquidity for international trade, was an international clearing union and a new reserve currency, Bancor, against which USA (White) proposed a more restrictive plan with dollar as the reserve currency (Robinson 1943; Solomon 1982). The final Bretton Woods agreement became, as is well known, a compromise with no clearing union and the US dollar as the reserve currency. Controls on capital accounts should on the other hand give larger room for national monetary policies under “pegged but adjustable exchange rates.”

Bretton Woods might have looked as a sustainable arrangement in view of the American economic superiority and the European “dollar gap” after World War II, furthermore with the need for a European Payments Union (EPU) to warm-up the system before it could be fully implemented in the late 1950s. However, the catch-up of Western Europe (and Japan) with the USA in the post-war period made the positions as regards the international monetary system strikingly reversed around 1970 – as predicted by Robert Triffin (1960). While concerns about international imbalances in the 1940s were voiced by the Europeans (as represented by the British and Keynes) and talked down by the Americans, in the early 1970s it was the latter who proposed a symmetrical arrangement (penalizing large surpluses) and the Europeans who resisted (Solomon 1982: 242 ff).

Moreover, in the early 1970s it was continental countries and not Britain that spoke for Europe. And at this time the European integration within EEC, including visions about a monetary union, was on the agenda. In the relations between USA and Europe this was reflected by the ”Snake in the tunnel”, which should limit intra-European exchange rate fluctuations to half those of the Smithsonian agreement of G10 in December 1971. For the global monetary arrangements, these years of the break-up of the Bretton Woods system (finally in early 1973) was a prelude to the easing of exchange rates that has followed – but in Europe it was the beginning of a realization of old ideas about a common currency that, as seen above, had been debated in the nineteenth century (Giavazzi and Giovannini 1989).

On initiative from the German Chancellor Willy Brandt, the EEC Hague summit in 1969 had committed the Werner Report, which was delivered in 1970 as “Report to the Council and the Commission on the realization by stages of Economic and Monetary Union in the Community” (European Commission 1970). The idea of a common currency for the European Community was in the air and it was no coincidence that a proposal came from Willy Brandt. The tensions between the lax monetary policy of the US during the Vietnam war and the European Community, in particular Germany, were intensifying. The Germans were no longer comfortable with the Bretton Woods pegged exchange rates and were in favour of floating (Emminger 1977; Tsoukalis 1977: 55). Brandt had shortly before the Hague summit been approached, and impressed, by Jean Monnet, the founding father of European integration, who at this time worked closely with Robert Triffin for the promotion of monetary integration, in which they saw a reserve fund as crucial (James 2012: 70 ff). A first version of the Werner Report was presented already in spring 1970 with the goal to achieve an economic and monetary union in 1980.”Economic” was primarily motivated by budgetary policy, “the harmonized administration of which is fundamental to the cohesion of the union” (European Commission 1970: 8). Exactly what was meant with a “harmonized” budgetary policy was not made clear but its priority contrasts with the role budgetary or fiscal policy was assigned in the realization of EMU through the Maastricht treaty.

The Werner Report was rather sketchy and a more comprehensive analysis was entrusted, by the European Commission in 1972, to a “Study group on economic and monetary union” which delivered its report in October 1973 (European Commission 1973). The Study Group consisted of 11 distinguished professors, among them James Meade, Robert Mundell, and Herbert Giersch. Irrespective of the varieties of the individual views among its members, the report of the Study Group clearly reflected a Keynesian paradigm and it stated that the external balance problem is "the central issue in the process of creating a monetary union" (European Commission 1973: 4). Interestingly, the group saw divergence in price and cost trends, which are at the root of the balance problem, not only as caused by different economic policies but also as a consequence of countries being at different levels of income and development. Hence a wide-ranging discretionary economic policy was advocated, on the Community level, and it should include regional policy, since monetary unification was predicted to exert heavier pressure on economically weak regions.

More controversial, was an issue raised explicitly first in the concluding section, namely a quest for "a new concept of parallelism" (p. 60). More concretely this can be seen as connected to the proposal for a prompt issuance of a European parallel currency: "What the Europeans need, *and they need it now*, is the creation of a substitute for the dollar" (p. 13, italics added). Without addressing the ongoing controversy within the Community between "monetarists" and "economists", where the former demanded instant reform and the latter economic integration before monetary union (see e.g. Tsoukalis 1977: 90 ff), the Study Group ingeniously tried to find a short cut to monetary unification. "Parallelism" was the compromise making possible a co-habitation between "monetarists" and "economists" by stating that economic integration and monetary unifications should proceed alongside (see e.g. James 2012:93). One should notice that "monetarists" represented by the French had little in common with the monetarism of Milton Friedman, for example, they favoured discretionary economic policy, whilst the "economists" as represented by the Germans were strongly leaning towards a rule based economic policy. The short cut of a parallel currency was also elaborated elsewhere by two members of the Study Group, although with slightly different blueprints (Magnifico 1971, 1973; Mundell 1973). According to Maes ([1998] 2002: 37), "ministry of finance officials and central bankers turned 'wild' at these proposals." Not all did, though. None less than Guido Carli, governor of Banca d'Italia and former president of the European Payments Union, hence wrote the endorsing foreword to Magnifico (1973).

However, the prospects for a European monetary union came to look rather gloomy in the 1970s. In 1975 another "Study group" (15 experts headed by the former vice-president of the

European Commission Robert Marjolin) on “Economic and Monetary Union 1980” summarized the situation:

> “Europe is no nearer to E.M.U. than in 1969. In fact if there has been any movement it has been backward. The Europe of the Sixties represented a relatively harmonious economic and monetary entity which was undone in the course of recent years: national economic and monetary policies have never in 25 years been more discordant, more divergent, than they are today.” (European Commission 1975: 1)

The so called Marjolin Report saw “inflation, unemployment, and balance of payments deficits” (p. 7) as the origin of the menace for the European integration. It is notable that the Marjolin Report in the outline of proposed measures included “action to strengthen the Community element in international financial solidarity” (p. 20) with an Exchange Stabilisation Fund, and a widened role for the European Monetary Cooperation Fund. In the further development of monetary unification such measures, intending to create balance between deficit and surplus countries and to fill a lender of last resort function, were ruled out. However, before further delving into these matters, we need to go back in time to sort out the elements and origins of European monetary integration after WWII. It is enlightening to compare the Marjolin Report of 1975 with the Marjolin Memorandum of 1962, which was initiated by the European Commission in the purpose to keep momentum in the early European integration.

European integration and the strange attraction of fixed exchange rates

While Robert Mundell (1961) discussed optimum currency areas in general terms, Tibor Scitovsky (1957) already before the ink had dried on the Treaty of Rome, had addressed the problems facing a European common currency. Similar to Mundell (1961), he highlighted the balance problems and concluded ”that a common all-European capital market and a common European employment policy would be prime requisites of a common currency”. Scitovsky pointed to the economic advantages of larger capital and labour markets but went on, ”…quite apart from their being desirable in themselves, these may well be necessary conditions of a common Western European currency, because they would provide the main forces equilibrating balances of payments among members of the currency union” (Scitovsky 1957: 32).

The Treaty of Rome provided a plan for a customs union but besides the imperative about ”an ever closer union”, the aspects of an economic, monetary and political integration were only described in very general terms. In order to assess the achievements so far and outline a ”second step” of the integration, the European Commission (1962) presented the ”Marjolin Memorandum” and raised the aim of both an economic and monetary union. The argument of the Commission concerning monetary integration had some similarity with the ”inconsistent quartet” as later formulated by Padoa-Schioppa ([1982] 1994) – the ”inconsistent quartet” in turn is an extended version of the ”open economy trilemma”, which says it is only possible to combine two of the three: fixed exchange rates, open capital markets, and independent monetary policy. To these three the ”inconsistent quartet” adds free trade. The ultimate reason for the ”trilemma” as well as the ”inconsistent quartet” is the balance of payments, which under a fixed exchange rate require either controls on capital account or a relinquishment of monetary independence. Hence, the argument of the Commission was that the progress towards a customs union, which already had proceeded half-way to its realization, raised a challenge for monetary integration:

> “Every significant change of exchange rates would thus cause profound turbulence in the commodity trade of the no longer by tariffs protected countries and due to the common guarantee prices for grains and other agricultural products, also so sudden changes in the price level of agricultural products and consequently of farmers’ incomes, that the Common Market as such might be questioned.” (European Commission 1962: 87 – translated from the German version by the authors)[2]

Hence, the argument was that member countries could be tempted to take resort to devaluations when their industries faced competition from other members in the customs union.

The second part of the argument, referring to the Common Agricultural Policy (CAP) which still was under development, did not fully anticipate CAP’s intricate construction. In want of a common currency, a system with double exchange rates was later introduced with

[2] The dependence of the Common Agricultural Policy on stable exchange rates was also emphasised a few years later, in an expert report on ”The Development of a European Capital Market”: ”With the progressive dismantling of the various impediments to intra-Community trade, in particular customs barriers, economic integration is tending to standardize the price structure within the Community. The decisions connected with the common agricultural policy signify a decisive step in this direction. Because common agricultural prices have been fixed and are expressed in units of account, any modification of exchange-rate relationships between the member countries would have such a heavy impact on the Community’s farming sector that it now seems a very unlikely eventuality.” (European Commission 1966: 285-6)

administered “green exchange rates” for products within the domain of CAP.[3] These were however complemented with compensatory payments between the member states just to make up for the exchange rate turbulence in the 1970s (Morris 1980). However, even if some resemblance with the ”open economy trilemma” can be found in the argument of the Marjolin Memorandum, the balance problem which makes out the fundament of the ”trilemma” was not addressed. The emphasis was rather on transaction costs and a concern about unfair competition within the customs union. In addition came political considerations rooted in rivalry with the USA and Britain:

> “The six countries of EEC belong finally to a world monetary system built on gold and two important reserve currencies...The creation of a European reserve currency would significantly enhance the contemporary international monetary cooperation.” (European Commission 1962: 88 – translated from the German version by the authors)

The Memorandum leaned back on the progress of the customs union and outlined visions for the further integration with a rather technical approach, without much consideration of economic or political complications.

The Marjolin Report in 1975 came in a period of economic crisis and difficulties for the integration process and was the output of a broader “study group.” While taking the visions, about economic and monetary integration, as given, the outlook of the Report was also much broader and it tried to identify current and coming problems and ways to proceed. The Report reflected a Keynesian approach with concerns about imbalances and the proposals about an Exchange Stabilisation Fund as well as empowering of the European Monetary Cooperation Fund. In line with Scitovsky (1957), the Report put much emphasis on regional policy not only because of existing disparities but also because of expected imbalances in a monetary union. “Supply-side policy” had not made its way into the Report, on the contrary, “a common demand-management policy” was called for (p. 33) and the whole was packed as a federalist project with national governments handing over, not only monetary policy but also economic, that is fiscal, policy and social policy, to the Community (p.4, 29), thus further pressing this aspects from the Werner Report.

[3] The role of the CAP for the predilection for fixed exchange rates or even a common currency is highlighted by a press conference of the then president of the European Commission, Walter Hallstein, who explained the decision by the Council to fix a common price for cereals, in the night 22 December 1964, “simply by declaring that the European currency had been born” (Etienne and Ciavarini-Azzi 1979: 441).

As regards the economic approach came, however, other winds to dominate in the journey to EMU. The integration process as a whole continued to meet hard headwinds in the late 1970s, until a German-French initiative suggested the reform of the much reduced ”snake” into the European Monetary System (EMS). The idea of the Exchange Stabilisation Fund was an element in the proposal but was quietly buried after the objections from Bundesbank (Gros and Thygesen 1992: 55ff; Kenen 1995:6; Eichengreen 2008: 158). The EMS had the aim to stabilize intra-European exchange rates, but during its first eight years eleven “realignments”, in effect collective devaluations against Deutsche mark, were undertaken (Gros and Thygesen 1992: 68). This was the soft EMS, followed from 1987 by the hard EMS with almost no realignments. However, the success of the hard EMS turned into the EMS crisis in the autumn 1992 which only could be eased, in the summer 1993, by a loosening of the allowed fluctuations in the Exchange Rate Mechanism (ERM) (BIS 1994: 168; Gillingham 2003:292; Eichengreen 2008: 171-2).[4]

It is remarkable that there is a large literature assessing the EMS performance up to 1990 but rarely a connection between the EMS and the ensuing EMS crisis.[5] Even de Grauwe (1994) who outlines the fragility of fixed exchange rate regimes, finds the credibility of EMS increasing after 1987 when realignments entered a phase of standstill. Although inflation rates had converged, there was sufficient asymmetry in trends for substantial losses in competitiveness to accumulate among catching-up countries within EMS, which also was admitted by the Committee of Central Bank Governors (1993). As a consequence, the hard EMS became a pressure cooker and the more so as several new and associated countries entered the exchange rate mechanism of EMS in 1989-91. The unawareness of these tensions reflects a lack of concern for the balance problem: speculative attacks should be avoided through the credibility of a fixed exchange rate, eventually a common currency.

Nevertheless, even if the EMS crisis surprised actors, Giovannini and De Cecco (1989:2) had warned, that with the then forthcoming liberalization of foreign capital controls in 1992, as prescribed by the Single European Act, financial markets would be seriously destabilized.

[4] Erroneously Mongelli (2010, p. 127 n.12) in the ECB *Festschrift* to the euro (Buti et al 2010) dates the loosening of ERM to March 1993.

[5] The crisis seems to have come as a surprise even for those who knew the system in detail: “Overall there is therefore little reason to believe that the EMS would be destabilized by random self-fulfilling attacks in the early 1990s. There is therefore no need to construct special safeguards against turbulences in financial markets” (Gros and Thygesen 1992:166, the Introduction dated in March 1992). Still a week before the outbreak with an attack on the Finnish markka in September 1992, IMF did not see any warning in the sky (Eichengreen 2003: 229). For a survey of the early literature on “the Crises of 1992-93”, see Cobham 1996.

Their recipe was to speed up the implementation of the EMU and avert speculative attacks by demonstrating a commitment that in turn should generate *credibility*, a concept that had become fundamental with rational expectations. This was part of a criticism of the gradualism in the Delors report, but that kind of shock therapy was not politically feasible in the EC context, primarily due to the resistance of the German Bundesbank.

It is clear that the worries housed by the Marjolin Report, about the management of imbalances in a monetary union, were no longer seen as relevant in the late 1980s. The disciplinary effect of a fixed exchange rate had instead become the main concern. This line of argument in the discussion about the European monetary affairs can be traced back to the *Optica reports* (Basevi et al 1976, 1977; see also Thygesen 1978). Interestingly, these reports were again assigned by the European Commission to a group of external experts, professors in economics, almost in parallel with the larger and more mixed "study group" which delivered the Marjolin Report. [6] The analysis and proposals of the *Optica reports* were guided by the "monetary approach" to the balance of payments (Basevi et al. 1976: 9) This meant a conviction that the purchasing power parity theorem holds, that is, that exchange rates reflect movements in price levels, at least over a somewhat longer term. Consequently, "…the problem of the exchange regime affects, on the whole, merely the nominal values of the economic union and this in such a way that the argument for and against a monetary union are, in a nutshell, reduced to the arguments for and against a common rate of inflation" (Basevi et al 1976:40). Structural differences between countries would not matter and the common rate of inflation was a question of monetary policy.

Armed with the new theory of rational expectations, this provided strong arguments for a rule-based economic policy, which according to Gros and Thygesen's (1992:127) account became most fully developed in an article by Giavazzi and Pagano (1988). The title of that article is very telling, "The advantage of tying one's hands: EMS discipline and Central Bank credibility" and the message was that higher-inflation countries could borrow credibility and reduce inflation by pegging their currencies to the Deutsche Mark. The mechanism should work even better in a monetary union. A theoretical foundation for fixed exchange rates, ideally a gold standard, as part of a rule based economic policy was provided by Barro and

[6] The only member of both groups was Niels Thygesen, professor in economics at the University of Copenhagen, who later also was appointed to the Delors Committee which prepared the Maastricht Treaty with the final plan for the EMU. Co-authors in the second Optica report, with "the main task…to verify and complete" the first report, also included two PhDs.

Gordon (1983) and McKinnon (1988), it was also embraced by the free banking school (White, 1985). The theoretical approach for the eventual design of EMU, with no particular concerns for the balance problem but based on the idea of the monetary system as a disciplinary device, can however be traced to the *Optica reports*.

This interpretation is further supported by the appearance in *The Economist* on November 1, 1975, of ”The All Saint's Day manifesto for European Monetary Union”, with a plea for a European Parallel Currency (EPC) that should compete with the national currencies and let “the market decide” its validity. The manifesto was undersigned by “nine prominent European economists” of which five were involved in the *Optica reports*.[7] Only Niels Thygesen was also in the Delors committee and did then not retain the idea of a parallel currency. A parallel currency was however part of the critique against the ”gradualism”, which since the early 1970s had been part of the official EC strategy. Though with the Maastricht design of the EMU the critics of ”gradualism” could be satisfied: a common currency, an independent Central Bank, and no lender of last resort.

The *Optica reports* and the manifesto of 1975 provided a theoretical platform for a rational expectations and rule based strategy towards a monetary union as realized by Maastricht. The German-French proposal in 1978 for a replacement of the crumbling “Snake” with the EMS still contained much of the Keynesian concerns about a symmetry between deficit and surplus countries, manifest in the Exchange Stabilisation Fund, and so did also the report by ”three wise men”, one of which was Robert Marjolin (Council of European Communities 1980). The latter report was about the overall prospects for the European integration project and took the opportunity to make a plea for “the two unwritten rules of Community solidarity” which they saw as fundamental for the whole project and which reflected concerns about the balance problem.[8] In the realization of EMS these rules suffered a defeat when the mutual support

[7] The fifth, though not among the Optica co-authors in the bibliography below, was Michele Fratianni, involved as an assistant for *Optica 1976.* The suggested name of the parallel currency was ‘Europa’. Several proposals for the issue of a parallel currency, just as a century before also named ‘Europa’, were made in the early 1970s. 1974 appeared a book in four languages, by five independent European intellectuals, “sufficiently well-known” to make an imprint, so they presented themselves in the preface (Cairncross et al. 1974). One of the co-authors of the book also signed the Manifesto, namely Herbert Giersch. An important difference between the book and the Manifesto, though, was the former's emphasis of the balance problems, which were less of a concern in the Manifesto and could be solved by a “vigorous regional policy.”

[8] The first was the “rule of active solidarity” calling for assistance “by all the means” to a member state “in serious difficulty, whether as a result of circumstances, or of the application of certain Community rules, or of its own mistakes…” The second was the “rule of passive solidarity” which carefully warned for “financial discipline…which causes problems for its associates in the Community” (European Commission 1980: 74-5). Clearly, the concerns were about balance problems caused by an asymmetric monetary system.

mechanism of the Exchange Stabilisation Fund was vetoed by Bundesbank, and later the Maastricht plan for EMU the no-bail out clause simply prohibited that kind of solidarity (Article 104 in the original Maastricht Treaty, reprint in Gros and Thygesen 1992: 431 ff). The no-bail out clause was a prohibition of support actions for member countries in financial difficulties. The rationale of the clause was of course to avoid moral hazard by indebted members in the EMU, who should not be tempted to exploit the higher credibility and lower interest rates to borrow more and let all members share the risks.[9]

While the whole project of European integration until the mid-1980s continued to face difficulties, two factors paved the way for the Maastricht plan for EMU: one was the convergence of inflation rates, which was a wider international phenomenon and not limited to the EMS; the other was the decision, in 1986, by the European Council to advance from the customs union to the Single Market. The convergence of inflation rates seemingly made it possible to de facto fix exchange rates within the EMS, and the Single European Act (SEA) signified a political turn-around of the European Community. Before the SEA an interventionist paradigm had guided the Community's economic policy, as demonstrated, for example, by the steel cartel (Eurofer), initiated by the Commission as a response to the steel crisis in the late 1970s, and which was combined by an acceptance of national governments' massive subsidies to ailing industries (Mény and Wright 1987; Ljungberg 1995). With the SEA the Community became unequivocally oriented for competition and a rule based economic policy as signaled in the *Optica reports*.

In this new climate the *Delors Committee* was assigned, by the European Council at the meeting in Hannover 1988, the task to design the plan for the EMU.[10] The *Delors Report* did not devote much concerns on the balance problem but thought that the reform and expansion of the structural funds, decided by the European Council in February 1988, would be a relief (Committee for the study1989: 10-11). The underlying idea was that imbalances should not be allowed to arise, due to the constraints of a rule based economic policy, which had gained

[9] Here the architects of Maastricht cheated themselves. In rational expectations markets are always right but following the introduction of the euro capital markets too generously stood at the disposal of private business in, e.g., Ireland and Spain (Pisany-Ferry 2014: 55).

[10] Besides the president of the European Commission Jacques Delors and the commissioner for agriculture Frans Andriessen, the committee consisted of the 12 central bank governors, and additionally three "personalities", one of which was economist Niels Thygesen. The British Treasury and the Bundesbank were very disappointed over Delors being chairman of the committee and the president of Bundesbank, Karl Otto Pöhl, reacted and acted when Delors, rather imperiously, appointed two of his protégés as rapporteurs of the committee. Tommaso Padoa-Schioppa, probably the most influential, remained, but the other was replaced by one with a background in the German ministry of finance. (James 2012: 235).

primacy in the economics profession. To the extent that politicians still were worried about imbalances, they were pleased by the illusory argument that national current accounts would be merged into one (European Commission 1990: 11)[11] .

The *Delors Report* was accompanied by a set of papers by committee members, which either underlined positions taken by the *Report*, or exposed dissenting views. To the former belonged, for example, the paper by Maurice Doyle (1989) of the Central Bank of Ireland on regional policy and the paper by Wim Duisenberg (1989) of the Dutch central bank on the maladies of a parallel currency. To the latter belonged Jacques de Larosière's (1989), of Banque de France, plea for a European Reserve Fund, as a reform and extension of the European Monetary Cooperation Fund which had been implemented in the early 1970s. This was a reappearance of the constant French request for institutionalized mutual support which, as mentioned above in connection with the making of EMS, had been disavowed by the German Bundesbank. Although the *Report* itself reprinted both views (§§53 and 54), the symmetry argument,with its demand for a Reserve Fund, was clearly at odds with the rule based stance that became definitely formalized in the no-bail out clause in the Maastricht Treaty. Also dissenting was, notably, Karl Otto Pöhl of Bundesbank who demonstratively "assumed that the goal of monetary union cannot be reached in a *quantum jump*" (p. 132, italics added). This was contrary to what was stated in the *Report* (p. 12 §14) and reflected the old contradiction between "monetarists" and "economists", with a more recent terminology rather categorized as protagonists of the so called endogenous and the traditional OCA theory, respectively (Mongelli 2002, 2010; James 2012: 215). The Bundesbank view had been that the monetary union could only be reached along with economic integration which included fiscal policy harmonization, hence retaining views from abandoned theory. In the 1970s and in the Werner Report, fiscal policy harmonization had been a *sine qua non*, but this was now reduced to fiscal discipline.

The compromise of the *Delors Report* was that the EMU should be reached gradually and in stages, but Pöhl feared that these would be prematurely got through. His consent was acquired with the design of the European System of Central Banks (later to become ECB and copy-pasted on Bundesbank), where practioners' discipline found a perfect fit with rule-based theory. For the more orthodox advocates of the monetary union the gradualism of the *Delors*

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[11] James (2012:12) emphasises the importance of this argument in the making of EMU, but without a hint that it makes no real economic difference whether the balance of payments is constructed on the union level or on the national levels. The balance problem is just redefined to a regional problem.

Report was distasteful and a threat to the whole project (Giovannini 1990). Although the final plan for the way to EMU did not precisely follow the contemporary orthodoxy but merged parts of old opposite positions, the eventual edifice was based on the new paradigm. [12]

Conclusions

Historically, different arguments figure in the support for international exchange rate arrangements. At the outset, from the mid-nineteenth century, the quest for international exchange rate arrangements were based on the transaction cost argument, i.e. to facilitate trade. Britain had for long stood on gold but until 1870 a bimetallic standard dominated in continental Europe. A circumstance that pushed for gold instead of silver or a bimetallic standard was the scarcity of silver. When the unified Germany switched to gold after the Franco-Prussian war, other countries followed suit. Ironically, with economic growth and more countries joining the gold standard, gold also became scarce until new mines were opened in the 1890s. The second argument is about the disciplinary effect of a fixed exchange rate. In retrospect this argument has been ascribed to the 19th century context of the gold standard, but there seems to be little if any contemporary evidence for the disciplinary aragument as regards the choice between gold, silver or a double standard. Instead the disciplinary argument was conceived ex-post most notably by the British Cunliffe committee by the end of WWI, and came to guide the efforts to restore the gold standard in the interwar period.

With the Depression and the fragmentation of international economic cooperation in the 1930s, focus began to shift to the problem of imbalances in current accounts and how to solve them. The BrettonWoods system implemented after WWII was designed to take into account the problem of those imbalances. However, the Bretton Woods system built too much on American supremacy and when other countries caught-up, the system could not sustain.

Along with the catch-up, European integration evolved and soon ideas also about European monetary unification. Of course, at the bottom of these ideas were concerns about transaction costs but the dividing issues were about other impacts of monetary arrangements. In its early phase, the balance problem had a central role in the discussions but was, from the mid-1970s,

[12] In a political economy account Bundesbank was forced by the government to comply, and Pöhl resided before Maastricht (Moravcsik 1998, ch. 6).

superseded by the disciplinary argument which in the 1980s was summarized as the "advantage of tying one's hands" (Pagano and Giavazzi 1988). This change of argument was underpinned by the critique of Keynesianism in the wake of the stagflation in the 1970s. In came the new theories of rational expectations and the monetary approach to the balance of payments, from which followed a strong preference for rule based economic policy. Again, stylized arguments about the classical gold standard came to the fore in discussions of monetary reform. Yet, it is notable how opposite political and theoretical positions could become complementary on the way to EMU, at the price of compromise on seemingly subordinate matters. French "monetarists" achieved their goal of a monetary union but had to give in their discretionary quest for a European Reserve Fund. German "economists" got a European rule based monetary policy but had to accept that the harmonization of economy and policy might still be halting when the common currency would be launched. Eventually, the new orthodoxy had won the set: an independent Central Bank and no lender of last resort with a common currency provided for a disciplinary system. How well and how far it worked is another matter.

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