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**UNITED STATES AS A MONETARY UNION:
A LESSON FOR EUROPE?**

Introduction

Thirteen North American colonies gained independence from the United Kingdom of Great Britain in 1783, four years later the states agreed upon a constitution and set up a federation. Soon afterwards, with the election of the first president in 1789, the new nation established a well functioning central government. However, the country had no single currency until 1879 and no central bank until 1913. Nevertheless, in spite of the absence of institutions that are these days frequently perceived in the European Union (EU) as attributes of a powerful nation, the United States managed to settle vast new territories, develop new industries, as well as, wage and win wars. Consequently, at the time the Federal Reserve Bank (Fed) was created, the nation was already a recognized economic and political superpower. America's entry into the first world war tipped the scale in favor of the Entente and president Wilson was in a position to play key role in the post-war peace conference.

Overall, the American experience shows that a political entity can play a global role without a central bank and a well established national currency. The factor that determines a country's importance is its political cohesion – the US enjoyed a very well functioning democracy and a central government, especially the executive branch, a long time before the American dollar attained an important economic role all over the world.

On the other hand, Europeans seem to hold the opposite view, the founding of a central bank and the creation of a common currency are seen as major steps in the process of political unification. Consequently, as a result of the Maastricht Treaty, on the one hand, the European Union has no representative government (the European Parliament enjoys very limited powers, especially regarding the executive branch – the European Commission), but, on the other, the region has a single currency issued by a central bank totally independent of any political, national or Europe-wide, entity and a set of strict rules that govern fiscal policies. In sum, a “democracy deficit” coexists with rules and regulations that bind still sovereign nations, a development hardly conducive to building a cohesive, super-national political structure.

Optimum Currency Area

In hindsight we can analyze the introduction of a single currency and a central bank in the United States in the light of optimum currency area (OCA) theory, a concept developed only decades later (Mundell 1961, McKinnon 1963, and Kenen 1969). The theory postulates that regions can benefit from a common currency, if they trade a great deal among themselves, there exists a very high degree of mobility of factors of production among them, and there is a mechanism that allows for monetary transfers aimed at softening asymmetric, i.e. region or industry specific, shocks (frequently referred to as “fiscal federalism”).

As of late 19th century, the United States met the above criteria reasonably well. Trade within the country by far exceeded the nation’s foreign economic relations and there was a high degree of competition in factor markets. At the time labor was relatively homogenous and very mobile, and product markets were not overly monopolized either. The only missing factor was fiscal federalism, but also no other nation at the time used fiscal policy to transfer resources from booming parts of the country to regions suffering from recessions. In other words, the American monetary union created no handicap in this respect.

The introduction of a common currency required practically no change to the overall working of the economy, too, because at the time the entire developed world was on the gold standard. In other words, most of the world was on a fixed exchange rate system and adopting a single currency (akin to fixing exchange rates among the different currencies circulating within the United States) made little difference. Additionally, the gold standard allowed no room for discretionary monetary policy, i.e. the adoption of a common currency meant no loss of a mechanism useful in addressing economic shocks.

Overall, American monetary unification and the establishment of the Fed resulted in a small change in the overall economic environment and the events caused little, if any, loss of efficiency. On the other hand, American monetary unification resulted in the elimination of any risk related to businesses operating with more

than one currency, i.e. most likely, presented a small gain. Moreover, the creation of the Federal Reserve System, which had a clear mandate to perform the function of lender of last resort, made the whole American banking system potentially more stable.

It is also worth noting that the American monetary unification coincided with the “first wave of globalization” (Baldwin and Martin 1999), a period characterized with international capital flows that (in relative terms) dwarfed even those of the present time (Crafts 2000). Therefore, by joining the gold standard the US was able to attract foreign capital, a resource that the nation lacked very much. Consequently, it is not surprising that economists who analyzed monetary history of the United States (Friedman and Schwartz 1963, Meltzer 2003) noted *no* significant change in American economic performance following the introduction of a common currency. Unlike in Europe before and after 1999, the monetary union required no significant adjustment in either economic policy or in the functioning of individual markets (labor and product).

However, between late 19th and late 20th centuries economic reality, economic theory, and economic policies changed enormously. First, the structure of American economy changed from a relatively simple system based on agriculture, mining, and commodity-type products into a highly sophisticated organism based on diverse services and high-tech industries. Consequently, particular regions are specialized and labor force is characterized with more diverse skills and knowledge, developments that make labor mobility more difficult. On top of that, factor markets attained a higher level of monopolization and, as a result, their prices became more rigid. Not surprisingly, Tootell (1990) found that today the US no more satisfies criteria for an optimum currency area and, therefore, certain regions suffer prolonged periods of high unemployment resulting from asymmetric shocks.

Secondly, following the collapse of the gold standard a huge change has taken place in domestic and international monetary arrangements. The demise of a link between the stock of gold held by the central bank and the amount of money in circulation signaled the beginning of discretionary monetary policy and its use to rectify economic problems. The downfall of the gold standard also spelled out the end of a fixed exchange rate system and the possible exploitation of currency depreciation in handling trade imbalances and in tackling the underutilization of economic resources. In sum, the general economic environment has changed dramatically; on one hand, factor markets that used to be very competitive and flexible developed into quite rigid ones and, on the other, monetary policy and exchange rates that used to be rigid became flexible and perceived as important tools of economic policy.

The following two sections provide a review of the use of both monetary and fiscal policies in the US with an eye towards the working of the American monetary union.

Role of monetary policy in the US economy

Since the early 1980s, in the US, monetary policy has been used to address short-term economic shocks, while fiscal policy has been employed to accomplish long-term goals, for instance to stimulate economic growth (Meyer 2000). However, in a monetary union, the central bank has difficulties in addressing regional (or industry specific) shocks without possibly creating adverse conditions in other regions (industries). In particular, expansionary monetary policy aimed at stimulating growth in a depressed region may very well create excessive demand in regions enjoying robust growth and, thus, contribute to inflationary pressures. Therefore, the central monetary authority may frequently face trade offs, for instance, between price stability and economic growth or between the value of domestic currency and employment. Because the Fed is accountable for its actions, the bank needs guidance from the controlling entity (Congress) in resolving these dilemmas.

Most recently, the Congress defined goals of monetary policy when it adopted the Full Employment and Balanced Growth Act (commonly known as the Humphrey-Hawkins Act) in 1978. The law set three objectives for the Fed: affordable long-term interest rates, full employment, and price stability. Because the first aim is a medium for attaining the second, it is commonly assumed that the central bank has “twin goals” of price stability and full employment.

It is important to stress that, although the Humphrey-Hawkins Act contained specific numerical targets, the Congress realized that the goals were overly ambitious and did not penalize the Fed for not meeting them within the prescribed time. Given this fiasco, the Congress has refrained from micromanaging economic policy and has never specified inflation and employment targets since. Similarly, the Fed has also avoided setting specific aims for itself; however, it has had internal working definitions of price stability. It is widely assumed that the bank currently defines price stability as the rate of core inflation of about 2 percent.¹ In sum, on one hand, the American central bank has a great deal of latitude in conducting monetary policy and, on the other, the Congress continuously monitors economic conditions and exerts pressure on the Fed through semi-annual hearings.

The Fed is required by law to present the legislative power with written reports prior to the hearings held separately by the two chambers. Additionally, Fed executives, including the Chairman, may be summoned to testify before each of the chambers of Congress at any time. These meetings serve not only the purpose of assessing the work of the bank, but also of getting the bank’s input into new legislation. Similarly, top executives of the Fed regularly meet with highest officials at the Department of Treasury. These sessions allow for exchange of opinions and

¹ Core inflation is defined as the overall consumer price level less prices of food and energy. Prices of these items tend to be volatile and by eliminating them from the consumer price index the Fed is able to focus on long-term trends in price movements.

analyses, rather than offer the executive branch an opportunity to exert pressure on the central bank. It is very important to stress that the hearings and required reporting make the Fed fully accountable for its actions. However, the bank is responsible to the general public and the legislative power, not the executive; therefore, there is little danger of the president using monetary policy for short-term political ends, for instance to stimulate the economy before elections. This threat is very much stressed by Nordhaus (1975); however, most economists (for instance, McCallum, 1978, Alesina, 1989) dismiss this hypothesis.

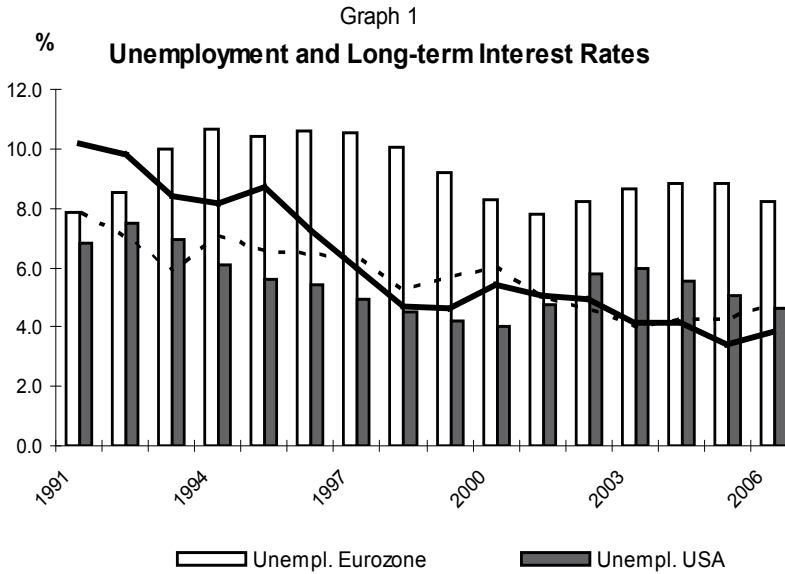
From the above, it is clear that the American central bank enjoys economic but not political independence. According to Grilli, Masciandaro, and Tabellini (1991) the former denotes freedom to choose specific tools of monetary policy (Debelle and Fisher (1994) call this instrument independence) that are used in accomplishing specific targets (goals in the Debelle and Fisher taxonomy) set by another body, in this case, the US Congress. This is consistent with practice in most other developed nations and Debelle and Fisher conclude that this arrangement is most efficient.

Milton Friedman (1968) postulated adhering to a rule in conducting monetary policy, i.e. increasing money supply by a fixed amount consistent with the long-term rate of economic growth and the natural rate of unemployment, commonly known as Non-Accelerating Inflation Rate of Unemployment – NAIRU. This great economist argued that discretionary monetary policy is ineffective, because, on one hand, given rational expectations, the central bank is unable to increase the rate of economic growth (in the long-run, an excessive increase in money supply results only in a higher price level with no increase in the level of real activity – the so-called neutrality of money), and, on the other, monetary policy may not be effective in stimulating a sluggish economy because of an unknown lag between a policy change and the impact of a new level of money supply on the economy. In other words, a monetary stimulus may take effect only when the economic problem is already gone, and, thus, would only contribute to inflation. In spite of his view that only money matters, Friedman did not advocate discretionary monetary policy.

However, actions of the Federal Reserve Bank over the last quarter of a century clearly show that discretionary monetary policy is effective in combating demand-side shocks. During the tenure of Alan Greenspan as the Fed's Chairman, the bank frequently changed the target level of short-term interest rates in order to preempt adverse effects of economic disturbances.

Moreover, as Greenspan (2004) himself stresses, the very significant permanent decrease in NAIRU, from about 6 percent to about 5 percent, that took place in the latter half of the 1990s was possible only because of a very substantial monetary expansion (Graph 1). Not surprisingly, Benjamin Friedman (2006) summarized the Greenspan years at the Fed's helm as a triumph of discretion over rule.

Unfortunately, over the same period, the Eurozone failed to record a similar success in bringing unemployment down in spite of a very significant decline in inflation and, consequently, a large decrease in long-term interest rates (Graphs 1 and 2).



Inflation targeting in the US

At this juncture it is important to add that, most likely, successes in keeping the US economy out of long periods of recession and in lowering NAIRU would not have been possible with the Fed attempting to attain a single goal, that of keeping inflation low. Blinder (2004) makes this point crystal clear stating:

It would take a great deal to convince me that U.S. monetary policy since 1979 – that’s twenty-four years, under two Fed chairmen – would have been better, if only we had instituted inflation targeting back then and stuck with it thick and thin. (p. 32)

Moreover, the author is convinced that

[t]he starkly different legal mandates of the European Central Bank (ECB) and the Fed have [...] allowed Greenspan to gamble on growth in a way that the more cautious ECB (and the

Bundesbank before that) was unwilling to do. This is one, though not the only, reason the United States outperformed Europe in the 1990s (p. 31).

Another important issue is the fact that the Fed showed a good deal of flexibility in targeting inflation. As I mentioned earlier, the Fed has never set a specific goal for an acceptable increase in the consumer price index. This strategy allowed the bank plenty of freedom in addressing this very important issue.

First of all, the Fed has never found itself in a position that it would have to sacrifice employment to prevent inflation exceeding a stated target, especially when commodity prices started to rise after 2000. Second, even more important, the Fed has never fallen into the trap of attaining zero inflation.

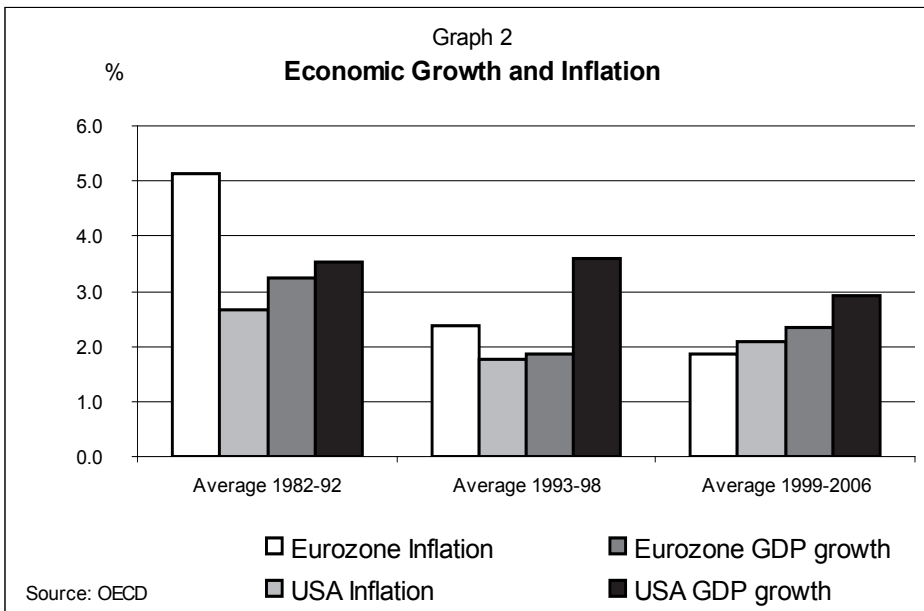
Following the 1970s, a period of stagflation, many economists emphasized the negative impact of inflation on the economy. Indeed, there are important efficiency losses resulting from a high level of price increases (Bernholz 2003) and, the experiences of that period reinforced the belief widely held above all in Germany that price stability is the most important goal of monetary policy (Stern 1999). However, this is by no means an established economic truth. For instance, Barro (1997) showed that inflation hinders economic growth only at high levels, those exceeding 15 percent per year. His study is based on an analysis of 117 countries and, given the Balassa-Samuelson effect (Balassa 1964, Samuelson 1964), may be less applicable to mature economies. Nevertheless, many central banks in developed countries aim at a rate of inflation within the range of 1–3 percent (Collins and Siklos 2004). On the other hand, the ECB established a very ambitious target of no more than 2 percent average price increase, and Blanchard (2003) and Lamy and Pisani-Ferry (2002) argue that the bank should increase its target for inflation.

There are strong arguments in favor of the higher (1–3 percent) level of price changes. For instance, a low level of inflation is helpful in speeding up adjustments in real wages, a process necessary in restoring competitiveness of particular industries or entire nations following an asymmetric shock. In a world with no price increases, real wages decline only when nominal wages go down – a task very difficult to accomplish, because employees resist decreases in nominal wages, a fact commonly referred to as nominal wage downward rigidity. However, with some price rises it is sufficient to keep nominal wages fixed for real wages to decline. Akerloff, Dickens, and Perry (1996) estimate that inflation of just 2 percent per year practically eliminates the problem of downward nominal wage rigidity.

Additionally, some inflation also helps in lowering real minimum wage, if the nominal minimum wage is held constant. Because inflation has been higher in the United States than in Europe, the minimum wage in the US declined much faster than in the EU and Gordon (2004) believes that this drop is a major cause for the unemployment rate in America being much lower than in the EU.

There is yet another very important issue that the Fed has had in mind while targeting inflation – zero-bound interest rates. After the very bad experiences with inflation in the 1970s, the 1990s brought again to central bankers’ attention the question of deflation. Beginning with the early 1990s, Japan has gone through a period of declining prices and extremely slow economic growth. When prices keep going down, even if the central bank lowers nominal interest rates to zero, real interest rates remain positive and, because of that, monetary policy may lose its power to stimulate the economy.

Ahearne et al (2002) agree that Japan’s experience shows that stimulating the economy is more difficult and more uncertain once deflation sets in. These days deflation is perceived as a greater threat to economic prosperity than inflation (for instance, Kumar, et al. 2003, Coenen, Orphanides, and Wieland 2004). For this reason, many central bankers believe that having a positive rate of price rises provides them with a margin for error. In case the economy slows down and there emerges a threat of deflationary spiral, the bank can drastically lower interest rates to keep the real interest rate close to zero, or even make it negative. The Fed adopted this type of monetary policy following the stock market crash of 2000 and, by doing so, most likely, prevented the American economy from slipping into a deep recession.



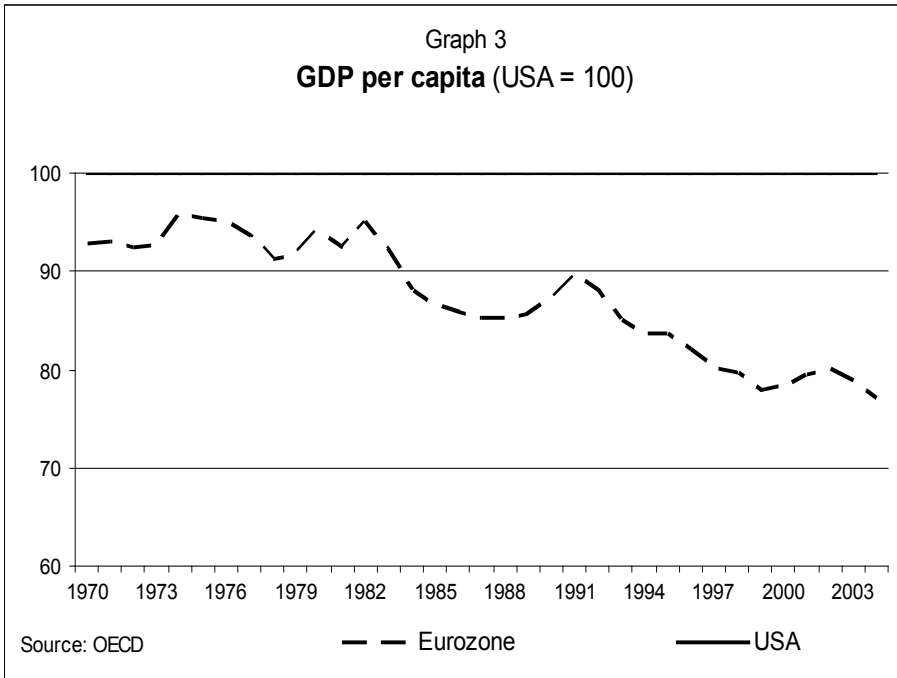
The question remains, what is the “safe” level of inflation, i.e. a speed of price increases that would give the central bank a large enough cushion to avoid a positive real interest rate, even when the nominal interest rate is set at nil. To address this issue it is worth mentioning that reported price increases overestimate actual inflation, because of problems with measuring price changes. First of all, we fail to account properly for the impact of quality improvements on price increases (Kokoski 1993), and, second, consumers tend to substitute cheaper products for more expensive ones (Aizcorbe and Jackman 1993). For the above reasons, it is widely believed that in the US reported price changes overestimate inflation by about 1 percent per year (Moulton 1993). In other words, this is the absolute minimum of price changes and on top of that should come the cushion against the zero-bound interest rates. For instance Orphanides and Wieland (1998) estimate that the danger of monetary policy ineffectiveness goes away when inflation reaches 2 percent per annum. All the above do indeed support the view that for a mature economy to the like of the US or the Eurozone, inflation in the range of 1-3 percent is optimal.

Also economic reality points in this direction, because economic growth in the Eurozone failed to respond to a very significant, post-Maastricht decrease in inflation. The average rate of growth in the Eurozone was substantially below that experienced in the region during the decade leading to the Maastricht Treaty and that recorded in the US over the same period. This was the case, both, during the time of convergence (1993–1998) and after the introduction of the single currency on January 1, 1999. (See Graph 2, where GDP deflator is used as a measure of inflation.)

Effectiveness of American monetary policy

Overall, economic reality shows that, over the last 25 years, the American monetary policy has performed well in keeping the economy out of trouble. During this period America has managed to reverse the economic convergence process that had been present over the previous quarter of a century. Until the late 1970s the standard of living (after adjusting for the difference in price levels, i.e. at the purchasing power parity) of the future Eurozone had been quickly catching up with that of the US; however, beginning with the early 1980s the gap has begun to increase again. (See Graph 3, where the term Eurozone indicates the original eleven EMU members plus Greece).

Moreover, long-term projections indicate a further decline in relative economic power of the two largest economic blocks. OECD (2005) predicts that by 2020 the gap between the average GDP per capita in the Eurozone and the US will increase to 37.5% and that the disparity will grow further by 10% over the following decade.



This accomplishment was possible thanks to, among other factors, the use of monetary policy in combating demand-side shocks. The Fed and the controlling institution (Congress) as well as the executive branch worked well together and managed to keep the American economy growing at a robust rate and to attain a low level of unemployment. Monetary policy has been geared towards attaining these goals, as well as, towards maintaining low inflation. In the US neither full employment nor price stability enjoys primacy – these two goals are seen complimentary. Monetary policy is aimed towards price stability and the minimization of efficiency losses resulting from price increases, but, at the same time, is flexible enough to amortize demand-side shocks and to foster real wage rate adjustments and, thus, support continuous growth in income and employment.

Fiscal federalism

In the US, fiscal policy is also designed to support the monetary union. The federal government collects most taxes and federal taxes are used to finance numerous programs, but Washington also makes transfers to state and local governments.

As a result, if a region is going through a recession and its income goes down, the amount of taxes it sends to Washington declines, but the amount of transfers from the federal government does not change. Sala-i-Martin and Sachs (1992) estimate that this “automatic” decrease in contributions to the central government combined with no loss of federal aid may absorb up to 40 percent of an adverse asymmetric shock. In case of a very severe regional recession (or a natural disaster), the federal government may directly aid the affected area further decreasing the pain. Another issue is federal help to underdeveloped regions. Such programs operate at a much greater scale than similar assistance in the EU.

Another important feature of American monetary union is absence of any restrictions on the level of budget deficit or debt level. For instance, in 1986 the state of Louisiana had a budget deficit equal to 5 percent of its revenue and the shortfall grew to 18 percent in 1988. However, this development caused no concern in Washington, because the federal government has no responsibility for local government debts. Eichengreen and von Hagen (1996) analyzed the question of restrictions on the conduct of fiscal policy on sub-national levels among nations with a federal political structure and concluded that restriction on deficit and debt levels are usually imposed when the local government has no power to tax. In such a situation, the federal government collects all taxes and is also responsible for debts of local governments; therefore, it should be able to set limits on local governments’ borrowing. In the US taxes are also collected at the state level and there is no reason to impose federal limits on states’ ability to issue debt.²

The very fact that the states face no artificial restriction on their ability to acquire debt does not mean that there is no incentive for state governments to keep their books balanced. However, it is the market that enforces fiscal discipline, not the bureaucrats. Goldstein and Woglom (1992) show that the yield on bonds issued by entities that tolerate high deficits or have high debt levels are higher than on securities sold by local governments showing a more conservative approach to spending. In other words, the market imposes a higher interest rate on less fiscally conservative governments.

It is important to stress that the United States exhibit a great deal of national cohesion and, consequently, transfers from rich to less fortunate regions face less opposition than in other countries. Overall, federal taxation and transfers alleviate the effects of asymmetric shocks and provide assistance to less developed regions.

² It is worth noting that with one exception all American states adopted amendments requiring the state government to maintain balanced budgets. Nevertheless, the wording of those amendments in most cases allows the state government to circumvent the restriction and states frequently run budget deficits.

Lessons for the European Union?

As stated above, present day United States does not meet criteria for an optimum currency area. Numerous studies show that the European Union is even less suited for such an arrangement (for instance, Bayoumi and Eichengreen 1993, Artis, Kohler, and Mélitz 1998). The main reasons for this surprising conclusion is an insufficient level of openness, susceptibility to asymmetric shocks (i.e. insufficient economic convergence), low mobility of labor, and a lack of fiscal federalism. Unfortunately, in the case of the EU, none of the above problems can be easily overcome.

First, there is no plan or desire to increase taxation at the EU level, because fiscal federalism implies continuous transfers of purchasing power from wealthy nations to less advanced regions. Europe does not exhibit sufficient unity and because of that persistent transfers from one nation to another are not an option that is easily acceptable for political reasons. For instance, in Italy persistent transfers from the North to the South are tearing the nation apart. It is even more difficult to envision handing over additional resources from the affluent North to, for instance, Romania. Another avenue of adjustment, labor mobility, is limited not only because of linguistic and cultural differences, but also because of, for instance, rigid real estate markets.

Different levels of development make the whole of the European Union prone to asymmetric shocks. These kinds of shocks would go away with fast economic convergence. (If all regions were similar, then an external negative shock would disturb the entire area to the same extent and an identical remedy would also apply to all regions.) The prospects for full convergence are not certain, however. De Grauwe (2000) makes a splendid case for convergence, but Krugman's (1991, 1993) arguments that integration leads to regional specialization are also very persuasive. If the latter view prevails, then the prospects for the European Monetary Union (EMU) are not very good, because the alternative mechanisms needed to alleviate the pain caused by asymmetric shocks are fiscal federalism and labor mobility (see above).

The use of monetary policy in addressing economic shocks is also questionable. Maastricht Treaty clearly placed price stability at the top of the European Central Bank's priorities and the bank has been very firm in its commitment to fighting inflation. On numerous occasions the ECB stated that keeping prices stable is the greatest contribution the bank could make to assure full employment and robust economic growth, and, as a result, inflation in the EU has been below that in the US. Nevertheless, a lower rate of price increases and, consequently, a lower interest rate that many members of the EMU now enjoy has failed to translate into a more vigorous economy and a lower unemployment rate (Graphs 1 and 2). As a result, Europe has been losing ground in her race for economic hegemony with

the United States (Graph 3). Unfortunately, there is little prospect for a change in the attitude of the ECB, because the bank is totally independent of any national or Europe-wide power. A change in its status would require an amendment to the Maastricht Treaty, a procedure that would need approval of all Member States.

Finally, it is worth noting that the Maastricht Treaty did not oblige the ECB to play the role of lender of last resort. Therefore, the entire European financial system is deficient in this respect. Although the ECB very much increased lending to European banks during the recent liquidity crisis resulting from problems with mortgage-backed securities, yet, it is unclear whether or not the ECB would actually use its resources to bail out the banking system, if a full-blown crisis erupts.

Conclusions

The United States adopted a single currency and joined the gold standard, i.e. fixed the dollar's exchange rate and gave up control over monetary policy when such a change necessitated little economic adjustment. At the time factor markets were highly competitive and the adjustment process occurred through changes in prices and wages. On the other hand, the European Monetary Union was adopted at a time when rigid factor markets made variable exchange rates and discretionary monetary policy attractive tools in healing economic imbalances and absorbing economic shocks. If European factor markets do not regain a high degree of flexibility and the EU does not introduce fiscal federalism, then the monetary union will result in a significant loss of efficiency, which will inevitably lead to slow economic growth and persistently high unemployment rates. Unfortunately, the experience of the entire post-Maastricht period, especially the last 9 years, does not point to a quick reversal of the adverse effects of the EMU on European economic performance. So far, the Eurozone has been recording very sluggish growth and high unemployment levels. Moreover, several nations have been exceeding deficit and debt levels and the ECB has been unable to keep inflation within the stated target. Continuation of these trends will certainly put enormous pressure on the EMU and may lead to its collapse.

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