European Monetary Union: An Old Keynesian Guide to the Issues

THOMAS I. PALLEY

1. Introduction

The countries of the European Economic Community (EEC) are currently deciding on whether to establish a European Monetary Union (EMU) in which all countries use a common currency. At the moment, it looks as if EMU will go ahead. However, there are still doubts in many countries (particularly the UK) about the merits of EMU, as well as doubts as to whether governments will be able to satisfy the self-imposed Maastricht Treaty fiscal requirements. For these reasons, EMU remains an open policy question.

EMU has both political and economic ramifications. The former concern the consolidation of European identity, and the strengthening of political links between European community member countries. About this aspect, the current paper has nothing to contribute. Instead, it focuses exclusively on the economic issues raised by EMU. The cost-benefit calculus of EMU membership hinges on questions regarding:

1) the 'effectiveness' of sovereign monetary policy,

2) the 'feasibility' of sovereign monetary policy,

3) the value of exchange rates as an instrument of macroeconomic adjustment,

4) the extent to which the economies of the EMU constitute an optimum currency area, and

5) the 'institutional design' that will inform the proposed European Central Bank's (ECB) policies, procedures, and regulations.

□ American Federation of Labor and Congress of Industrial Organizations, Public Policy Department, Washington (USA).

BNL Quarterly Review, no. 201, June 1997.

The current paper examines these questions from an old Keynesian perspective. In addition, it incorporates considerations of political economy in assessing the institutional design of the proposed ECB.[1]

2. Some important preliminaries

An important distinction concerns that between the EEC and the EMU. The EEC is a unified economic community that constitutes a free trade zone in which there is unrestricted movement of goods and workers. There is also unrestricted movement of financial capital, though this is something that countries may wish to reconsider in the event that monetary union is deemed inappropriate. The EMU represents a monetary union in which countries will adopt a common currency, and in which a single ECB will replace existing national central banks and take responsibility for monetary policy.

The important implication is that the benefits of free trade derive from the EEC, and are independent of EMU. Thus, the two should not be conflated, and a decision not to participate in the EMU does not mean non-participation in the EEC. The benefits of the EEC will be substantially realized with or without the EMU; the latter marginally enhances these benefits to the extent that elimination of national currencies reduces the transactions costs of intra-EEC trade.

The technical difficulties associated with assessing the costs and benefits of monetary union are compounded by the fact that these depend on theoretical point of view. Economic theory is divided on the question of whether monetary authorities can systematically affect economic outcomes, and this dramatically affects the costs and benefits of surrendering the ability to conduct sovereign monetary policy. In addition to this theoretical question, there are problems in talking about EMU and the national economic interest. This is because

[1] Bean (1992) provides an excellent short survey of the issues, albeit from a predominantly new classical standpoint, and without reference to issues of political economy. De Grauwe (1994) provides a fuller survey that covers both the theoretical and empirical literature. However, there is again no reference to issues of political economy, and the Keynesian-new classical dichotomy is conflated.

economies are constituted by different groups which have different interests, and policies that benefit one group may harm another. This consideration applies forcefully to the issue of EMU, since its institutional design may advantage capital over labor or *vice versa*. This problematic has tended to be suppressed owing to the assumption of a unified national economic interest.

3. The effectiveness of sovereign monetary policy: issue I

Central to the debate over EMU is the question of whether monetary policy can systematically affect real economic activity. In Keynesian economic theory, monetary policy can systematically affect both the 'level' and 'variability' of economic activity (Poole 1970). In new classical theory, monetary policy has no systematic effects on the level of economic policy, but it can affect its variability (Friedman 1990).

This difference in perspective can be interpreted as a difference over the slope of the long-run Phillips curve. The Phillips curve traces the relationship between inflation and the rate of unemployment. Keynesian theory maintains that there exists a negatively sloped Phillips relation (Tobin 1972 and Palley 1994): new classical theory maintains that the relationship is vertical.

If the Phillips curve is negatively sloped, governments can use monetary policy to reduce the unemployment rate, albeit at the cost of higher inflation. If the Phillips curve is vertical, then monetary policy cannot permanently reduce unemployment: instead, any attempt to use systematic monetary policy to expand the economy will only produce higher inflation. This difference is central to the assessment of the costs of joining the EMU. If the Keynesian view prevails, there are potentially significant costs to giving up sovereign monetary policy, and their size depends on the policies that the proposed ECB follows. Contrastingly, if either the new classical view prevails or the Phillips curve is very steep, then the costs of EMU are small since there is little benefit to having independent sovereign monetary policy.

The logic of these conclusions is illustrated in Figures 1 and 2. Figure 1 shows the Keynesian case. There are two Phillips curves; the

FIGURE 1

THE EFFECT OF EMU WITH A BUNDESBANK CONTROLLED ECB IN A WORLD WITH NEGATIVELY SLOPED PHILLIPS CURVES

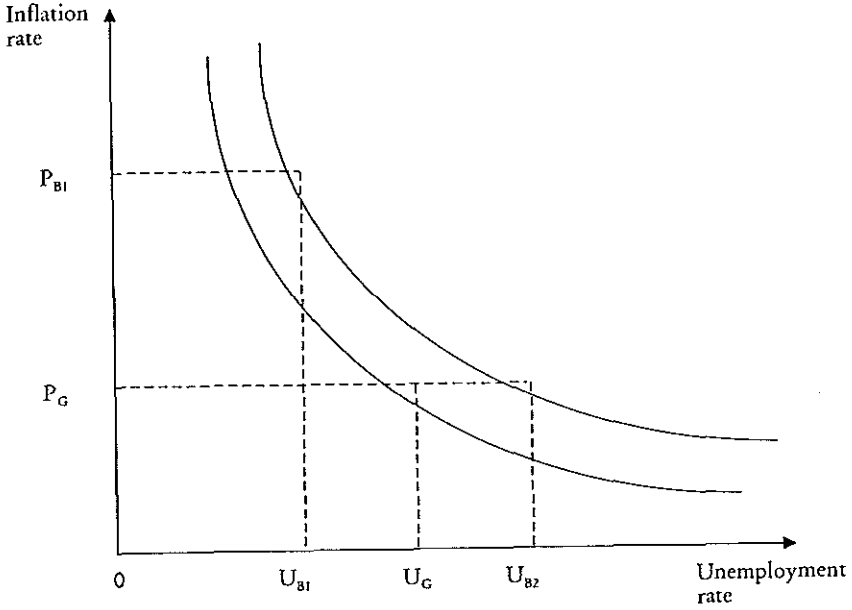
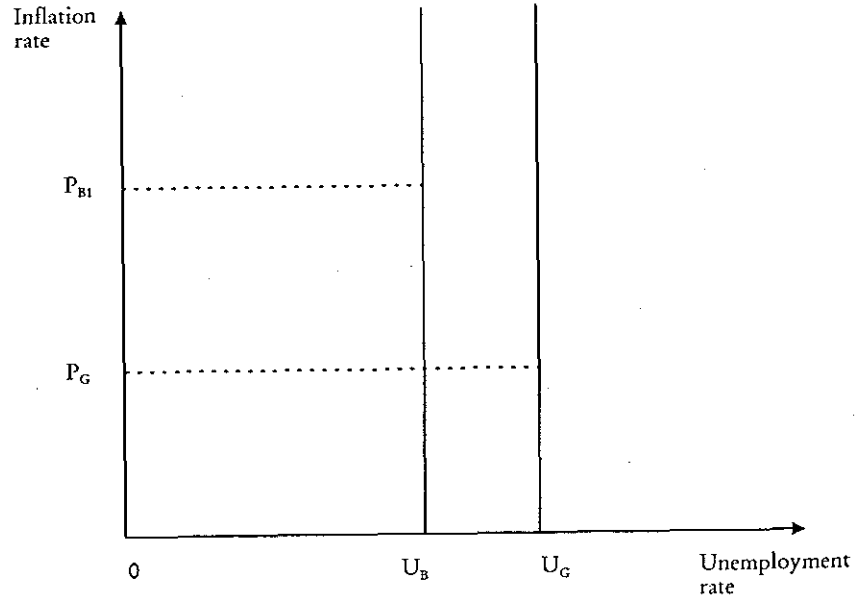


FIGURE 2

THE EFFECT OF EMU WITH A BUNDESBANK CONTROLLED ECB IN A WORLD WITH VERTICAL PHILLIPS CURVES



lower one applies to the German economy, while the upper one applies to the British economy. Prior to EMU, the British economy has inflation of P_{B1} and unemployment of U_{B1}: the German economy has inflation of P_G and unemployment of U_G. If after EMU the Germans control the new ECB, and maintain their existing policy, then the British economy would experience higher unemployment of U_{B2} and lower inflation equal to the German rate of P_G. Figure 2 shows the new classical case. Initially, Britain has inflation of P_{B1} and unemployment of U_B, while Germany has inflation of P_G and unemployment of U_G. The only change after EMU is that the British inflation rate falls to the German rate. These diagrams illustrate the fundamental significance of the competing views on the Phillips curve. From a Keynesian perspective, sovereign monetary policy is worth having, and the effect of EMU depends on who controls the ECB. From a new classical perspective, sovereign monetary policy cannot reduce unemployment, and the ECB only affects the inflation rate.

4. The feasibility of sovereign monetary policy: issue II

The surrender of sovereign monetary policy represents a potentially severe cost to the EMU. However, there is an argument that the conduct of sovereign monetary policy is no longer 'feasible' owing to the globalization of financial markets. The claim is that globalized financial markets allow financial capital to veto policies it dislikes by voting with its feet. In effect, 'hot' money flows serve to discipline national economic policy.

For the British economy, this claim is supported by the recurrent sterling crises that have constrained economic policy. A similar story can be told regarding the French franc and French economic policy. As governments have sought to expand economic activity by lowering interest rates, 'hot' money has flowed out in search of higher interest rates and to avoid any prospective threat of inflation. This capital flight puts downward pressure on the exhange rate, thereby forcing governments to reverse their expansionary policies. Under fixed exchange rates, the government is forced to buy its currency to prevent the exchange rate from falling. This reduces the domestic

money supply and raises domestic interest rates, thereby reversing the initial expansionary policy thrust. Under flexible exchange rates, there is no obligation to intervene. However, imports constitute a high percentage of GDP in most European economies, so that governments are *de facto* forced to protect the exchange rate in order to prevent nascent import cost inflation.

Financial capital's ability to excercise a policy veto has been increasing in recent years. Technological improvements in electronic communication have lowered transactions costs, and have contributed to the globalization of financial markets. This trend is likely to continue. Moreover, economic policy has augmented financial capital's power through the abolition of controls on capital flows. The conservative government suspended British capital controls in 1979, while the French and Italian governments abolished capital controls in the late 1980s.

Not only has the increase in capital mobility diminished the ability to conduct sovereign monetary policy, but it may also have contributed to an upward drift in interest rates. The logic is that of the prisoner's dilemma. Individual national governments, fearing the prospect of an exchange rate crisis, have been tempted to keep their rates fractionally above world rates. With every government acting in this fashion, the general level of world rates has been pushed up. Increased capital mobility has therefore imparted a contractionary bias to global monetary policy.

If financial capital's veto has become a permanent fact of economic life, and the restoration of a system of capital controls is neither possible nor sufficient owing to the extent of globalization, then effective sovereign monetary policy is no longer feasible. Under such conditions, the surrender of sovereign monetary policy is of diminished cost, and this would favor joining the EMU. Indeed, if the ECB can be designed so as to place unemployment ahead of inflation, EMU could bring benefits in this new era of globalized financial markets.

5. Life in the EMU: what are the consequences?

The elimination of national exchange rates and the establishment of a common currency is a second area of concern. This too has both costs and benefits.

5.1. *Life without exchange rates*

As part of a common currency area, country economies will take on a position similar to that of individual states in the US economy. These states can run either balance of payments deficits or surpluses with other states, but this poses no problem since all use a common currency. The only effect (which is never officially recorded) is that residents of deficit states either run down their existing asset holdings or build up obligations to residents of surplus states. An analogous situation would apply for EMU member countries.

However, the elimination of exhange rates implies the loss of an important instrument for domestic economic adjustment. A country may experience unemployment because its price level is too high relative to that of other countries. As a result, its industries are uncompetitive, and restoring full employment requires lowering its relative price level.[2] This can be accomplished by domestic price deflation, but this is difficult to effect because wages tend to be downwardly rigid.[3] In addition, price and nominal wage reductions may send the economy into a debt-deflation spiral by raising the burden of existing debt service obligations (Caskey and Fazzari 1987). An alternative to domestic price deflation is exchange rate devaluation. Instead of going through the contested and unstable process of

[2] Exactly the same problems apply to individual US states. During the 1980s the US economy was subject to a series of severe rolling regional recessions beginning with the farm belt in 1981/2, moving to the oil patch in 1986, and finally moving to California and the North-East in 1989. Regional adjustment might have been faster if regions had had their own currencies, enabling them to devalue their exchange rates and follow independent monetary policy. Instead, much of the adjustment was done via labor force migration.

[3] The economics of downwardly rigid wages is explored in Palley (1990). The logic is that workers need to guard against opportunistic exploitation by firms. Consequently, they are averse to wage reductions sponsored from within the employment relation, but are willing to accept relative wage reductions affected from outside the employment relation through a higher general price level and higher wages in other industries.

deflation, relative international prices can be adjusted by exchange rate devaluation. This immediately lowers relative prices, thereby making domestically produced good more competitive and imports less competitive.

How valuable is this tool of adjustment? Once again this depends on theoretical perspective. A Keynesian perspective maintains that economies can go through prolonged periods with high unemployment, and price and nominal wage deflation is difficult to accomplish. The classic example proffered by Keynesians is Britain's experience in the 1920s when Mr Churchill restored sterling to the gold standard at an over-valued rate. The result was loss of international competitiveness, and a decade of high unemployment. Balancing this, new classicals maintain that prices and nominal wages are relatively flexible so that relative price adjustment is easy to accomplish via deflation. Consequently, economies gravitate back to full employment quickly, exchange rate adjustment is not needed, and joining the EMU poses no loss since exchange rate adjustment is redundant.

Another argument is that it is ineffective because it causes domestic inflation. If a country is a significant importer of raw materials and also relies on imported consumer goods, then devaluation will raise production costs and also prompt wage inflation to protect living standards. This would mitigate the benefits of devaluation. However, if firms are unable to fully pass through their higher costs, or workers are unable to raise wages by as much as import prices have increased, then exchange rate adjustment can still improve competitiveness.

A final argument against the need for exchange rate adjustment is that the countries of the proposed EMU constitute an optimum currency area (Mundell 1961 and McKinnon 1963). An optimum currency area is one in which different countries are subject to common patterns (by type, magnitude, and timing) of economic shocks. Consequently, countries of an optimum currency area share the same business cycle. This means that cross-country relative prices are constant since each country's prices rise and fall at the same time and rate. Thus, relative price adjustment is not needed, and the exchange rate is again redundant. However, the evidence (Bayoumi and Eichengreen 1994) suggests that the proposed EMU is not an optimum currency area, although a subset of countries composed of Germany, the Benelux countries, France, and Denmark, may be.

5.2. *Optimal tax policy and seignorage*

With the surrender of sovereign monetary policy, countries will loose their ability to choose their inflation rate. This has important consequences for fiscal policy, since inflation generates seignorage revenues. Governments benefit from inflation because it erodes the value of the public's holdings of money, and the public must then acquire additional money balances from the government by giving over goods and services to the government.

Seignorage represents an important source of revenue for many governments, particularly the less developed countries of the EMU.[4] Moreover, their reliance on seignorage complies with the principles of optimal taxation since these countries have high costs of tax collection, whereas the cost of collecting seignorage is zero and the demand for money is inelastic with respect to inflation.

The formation of the EMU does not mean the end of seignorage, but it does mean that seignorage will be collected at a common rate determined by the ECB. Consequently, some countries will be collecting seignorage below their optimum rate, and will have to find other sources of revenue, run increased deficits, or cut back on government spending. In any event, ending national determination of inflation and seignorage may imply fiscal distortions that are inefficient.

5.3. *Will capital still be able to veto policy?*

The principal benefit of EMU is that it offers the prospect of mitigating financial capital's veto on economic policy. Individual governments will no longer be subject to the threat of an exchange rate crisis in the event that they seek to pursue expansionary economic policies. However, it is also the case that governments will only be able to pursue such policies through fiscal policy since they will have surrendered control over monetary policy on joining the EMU. Moreover, there are two further dangers. First, financial capital may still be able to discipline governments through the bond market. Thus, if financial capital dislikes the stance of national fiscal policy, there could be a sell-off of government bonds and a shift into bonds

[4] See De Grauwe (1994, p. 27).

of other countries. This would drive up the cost of government borrowing, thereby putting a break on fiscal policy. Second, fiscal policy could be ineffective if the ECB follows contractionary monetary policy. In this case, the right hand (fiscal policy) could find itself pulling against the left (ECB monetary policy). This indicates the critical importance of ensuring that the new ECB follows appropriate expansionary policy.

Finally, though EMU will establish a new European currency, this currency could itself be subject to speculative attacks. The economy of the EMU will be similar in size to that of the US: just as the US dollar is subject to bouts of speculative attacks, so too could the proposed European currency. Thus, financial capital may retain the power to discipline the ECB if it dislikes its monetary stance. Though not as great as that held over individual country currencies, this power will still be real. This suggests that there may still be a role for capital controls (about which more below) in the EMU.

6. The European Central Bank: independence versus political control

A critical variable in assessing the costs and benefits of EMU is the proposed ECB, which will take control of monetary policy away from national central banks. The consequences of this shift depend importantly on *i)* how one views the significance of monetary policy and *ii)* how monetary policy will be set within the ECB. The answer to the first question depends largely on whether the Phillips curve is negatively sloped or vertical. The answer to the second question raises important issues of political economy which have been ignored in the existing literature on EMU.

6.1. *The political economy of central banking*[5]

There has been a growing consensus among new classicals that national central banks should be independent of politicians, and this argument is now being applied to the ECB. The argument is that the

[5] This Section draws heavily from Palley (1996).

Phillips curve is vertical and this means that monetary policy cannot systematically lower unemployment. Despite this, governments may still increase the money supply and cause surprise inflation in order to temporarily raise economic activity. Consequently, the public comes to expect higher inflation, and this leads to an equilibrium in which unemployment is unchanged but inflation is higher. This is sub-optimal, and calls for taking the central bank out of the governments' hands by making it independent.[6]

Aside from reliance on the controversial assumption of a vertical Phillips curve, the theory of central bank independence also relies on a questionable construction of political economy. Old Keynesian political economy adopted the idealized construct of a benevolent policy maker who acted in the public interest. This is reflected in the Keynesian assumption of a well-defined social welfare function for purposes of determining optimal policy. This assumption denies the conflictual dimensions of economic activity and policy making.

New classical macroeconomics criticizes the Keynesian description of policy making. However, rather than remedying the absence of conflict, new classicals adopt an anti-government approach. There continues to be a commonly shared national interest, but the fulfillment of this national interest is frustrated by government which pursues its own private interest: hence, an independent central bank is needed.

This characterization of government has a long history in the economics profession. In the modern era, Milton Friedman has argued that the Federal Reserve caused the Great Depression of the 1930s, and that macroeconomic stabilization policy is not possible owing to implementation lags. This monetarist critique focuses on government's proclivity to create macroeconomic instability. The new classical critique of government rests on the theory of bureaucratic and governmental failure.[7] This theory was initially used as a counter to arguments for government interventions to remedy market failures related to externalities and the provision of public goods. Though the market tends to over-use the environment and under-provide public

[6] The formal economic logic (Barro and Gordon 1983) is that the central bank engages in strategic monetaty policy, and uses monetary surprises as a means of raising output. Consequently, the public comes to anticipate the central bank's inflationary tendencies, which results in a sub-optimal outcome with higher inflation than first-best policy would choose.

[7] See Tullock (1965) and Niskannen (1971).

goods, government sponsored cures are worse than the problem because bureaucrats act in their own private interests rather than the national interest. Bureaucrats can also be bought-off by special interests (i.e. lobbying), thereby again frustrating the national interests. Either way, the implication is that the cure of government intervention may be worse than the problem.

Whereas monetarists questioned government's 'capacity and judgement' to conduct policy, new classicals question government's 'motives'. The central assumption of the new paradigm is the existence of a divide between 'us' and 'government'. New classical political economy discards the notion of a benevolent public policy-maker, and replaces it with a political economy which retains a unified public interest but introduces self-interested government.

An alternative political economy is one in which not only is there no benevolent public policymaker, but there is also no unified public interest. Instead, the economy is driven by various interests, the clearest manifestation of which is the conflict between business and labor over the distribution of income. This conflict is revealed in the political process through the existence of political parties which struggle for control over policy making, and policy outcomes primarily reflect the preferences of the group that has political dominance.

Applied to the issue of the European Central Bank, this description of policy making has important consequences. Even if the Phillips curve is vertical and systematic monetary policy cannot affect unemployment, central bank independence does not solve anything. Instead, it will just institutionalize 'deflationary bias'. The new classical argument against democratically controlled central banks is that they mismanage monetary policy to advance their own bureaucratic interest, thereby leading to excessive inflation. Those favoring central bank independence argue that it would solve the bureaucratic incentive problem. However, this claim is false since an independent central bank would still have discretionary power over monetary policy, and would continue to be guided by the preferences of its senior officers.[8] To the extent that these officers have their own special interests, they will be guided by them. Thus, the creation of an independent central bank simply replaces one incentive problem with another. In general, central bankers tend to be drawn from the ranks

[8] A mathematical model formally demonstrating the falsity of the new classical claim is presented in Palley (1996).

of private bankers, and they therefore represent financial interests which view inflation as a bad and prefer a deflationary tilt to policy. The granting of central bank independence institutionalizes this bias in the making of monetary policy.

The case against independent central banks is augmented if the assumption of a vertical Phillips curve is removed. In this case, monetary policy affects economic activity and unemployment. Now an independent central bank would have a proclivity to deflationary policy in order to further the financial interests that bankers represent, and this would result in higher rates of unemployment. Over the last twenty-five years there has been a drift toward deflationary policy. This drift is visible in the higher average rates of unemployment that have prevailed, and in current calls for 'zero inflation'. The deflationary drift has occurred at a time when most European central banks are still under the control of national governments, and it will be strengthened if the ECB is given independence.

7. Conclusion: from theory to policy

The critical issues raised by EMU are:

1) Are country Phillips curves vertical?

2) Is sovereign monetary policy feasible given globalized financial markets?

3) Are prices and wages flexible so that adjustment to economic shocks is quick?

4) Is the proposed EMU an optimum currency area?

7.1. *Case I: weight of opinion against EMU*

In the event that sovereign monetary policy is both effective and feasible, prices and wages are inflexible, and the EMU countries are not an optimum currency area, then countries would be advised to keep their national currencies. The principal problem facing domestic monetary authorities is the globalization of financial markets and the

increase in international capital mobility which have undermined the ability to conduct effective monetary policy. Policies which can help restore the feasibility of monetary policy include:

1) The restoration of national controls on capital mobility.

2) The imposition of capital controls on flows between the EC and the rest of the world, while allowing complete freedom of flows within the EC.

3) The imposition of a requirement that all inflows of 'hot' money be required to stay for a minimimum period – perhaps 3 months.

4) The imposition of a Tobin (1978) transaction tax. This tax, perhaps equal to 1/8% of the value transacted, would be placed on every foreign exchange transaction. The problems with it are that it needs to be imposed globally, or else the geographical location of dealings will simply shift to those countries without the tax. Consequently, countries imposing the tax would lose financial sector business, without diminishing speculation. In addition, it does not distinguish between speculative trades and *bona fide* trades to finance international trade.

5) The imposition of a requirement that all short sales of currency by individual and corporate nationals be accompanied by a non-interest bearing deposit with the central bank equal to 50% of the short sale.[9] This regulation would apply to foreign subsidiaries located in a country, as well as subsidiaries and affiliates of corporate nationals located abroad. There are good reasons to believe that the preponderance of short sales of domestic currency come from domestic nationals. This is because their income flows are denoted in the currency, and their risk is therefore significantly curtailed.

Each of these policies would help limit the extent of speculative hot money flows, and restore the viability of sovereign monetary policy. Each should also be pursued in conjunction with existing G-7 arrangements for coordinating economic policies across countries.

[9] This policy proposal is contained in Eichengreen and Wyplosz (1993).

7.2. *Case II: weight of opinion for EMU*

In the event that sovereign monetary policy is either ineffective or unfeasible, that prices and wages are flexible, and that the EMU countries approximate an optimum currency area, this would lend support for EMU. However, before such a calculus can be completed, the ECB's institutional arrangements need to be spelled out. These include how the stance of ECB monetary policy will be set, how ECB seignorage will be distributed, and how the ECB will conduct its open market operations.

1. *ECB monetary policy.* The great danger in the EMU is the creation of an independent central bank that will impart a deflationary bias to monetary policy. To prevent this outcome, each country should have equal membership of the governing body setting ECB monetary policy. Country representatives should be appointed at the pleasure of their respective country governments. Decisions to lower the ECB interest rate should be by simple majority, while decisions to raise rates should be by a super-majority of two-thirds. Such arrangements would establish an expansionary pre-disposition in contrast to the contractionary pre-disposition that has wracked Europe for the last twenty years.

2. *Distribution of ECB seignorage.* Given underlying real income growth and low inflation, there will be sustained growth in demand for the liabilities (i.e. money) of the ECB. This raises questions about how seignorage from the issuance of these liabilities will be distributed. One possibility is that it will be distributed by reference to each country's share of European GDP: this would tend to favor wealthy countries. Another possibility is that it would be distributed by reference to each country's share of European population: this would tend to favor poorer countries. This latter scheme would help address the persistent regional imbalances that already exist within the EC.

3. *The conduct of ECB open market operations.* Under the EMU, governments that wish to run fiscal deficits will sell bonds in capital markets, in a fashion similar to state governments in the US. In the event that the ECB wishes to lower interest rates, it will buy bonds and issue liabilities (i.e. create money): the reverse holds if it wishes to increase rates. This raises the question of which country's bonds the

ECB will purchase. If it seeks to maximize income (to in turn be distributed back to national governments), then it will purchase those bonds carrying the highest rates. This would favor low income EMU countries whose bonds are classified as more risky, and this is a potential good: however, it would also favor countries with imprudent fiscal policies which are also reflected in higher market rates, and this would be a bad.

Given this difficulty regarding open market operations, the European parliament may wish to adopt partial deficit financing of the European Commission through the sale of EC bonds, and legally restrict the ECB to dealing in these bonds. Such financing would reduce the contributions national governments make to finance EC governance. However, it is not clear that there would be a sufficiently large EC bond stock to support effective conduct of ECB monetary policy.

4. *Capital mobility:* as with the conduct of sovereign monetary policy, ECB monetary policy will be subject to the threat of capital flight. This suggests that protections against such flows, of the sort outlined above, should be built into the EMU from the start. The prosperity of the Golden Age period 1950-1973 was built upon the absence of widespread international capital mobility, and this allowed national governments to pursue sovereign monetary policy.[10] The creation of the EMU offers a window of opportunity to recreate those conditions. This window should be taken advantage of through the creation of permanent institutions that allow capital mobility within the EMU, but restrict mobility with the rest of the world. If the countries of Eastern Europe join the EC and EMU, they too would join this system.

7.3. *Case III: a limited EMU*

It is possible that effective sovereign monetary policy is no longer feasible in today's globalized financial market place, and re-regulation is not possible owing to international political conditions. At the same time, it may prove impossible to get agreement

[10] The significance of capital controls in creating the preconditions for effective domestic economic management in the period of the Golden Age (1950-70) is emphasized by Pivetti (1993).

on the establishment of an appropriately structured ECB. In this case, smaller monetary unions may be the best policy. Each of these unions would be subject to resolution of the same problems raised in the previous Section. Possible unions include the Benelux countries and Germany, or the UK and Ireland. These are unions which the existing data suggest are optimum currency areas. Other unions may also be appropriate. The important point is that smaller monetary unions are possible, and this option should be fully explored.

In sum, the EMU represents a development of historic proportions, matching the Bretton Woods agreement of 1944. Indeed, the EMU may be of greater significance since it carries institutional lock-in: once in, countries will find it costly to leave. In contrast, Bretton Woods was readily undone in the early 1970s. For these reasons, the EMU needs to be evaluated with the long term in mind. The viability of national currencies needs to be considered in terms of likely future trends in international capital markets. Whether or not to join the EMU depends on an evaluation of whether effective sovereign monetary policy is feasible now and in the future, whether the EMU constitutes an optimum currency area, and whether the proposed ECB will have an appropriate institutional design. If the EMU is formed, it should be formed in a fashion that creates institutions which promote expansionary policies and empower the conduct of 'sovereign European' monetary policy. If this cannot be accomplished, countries may be advised to retain their own currencies or form smaller monetary unions with other countries that share their policy dispositions.

REFERENCES

Barro, R. and D. Gordon (1983), "A positive theory of monetary policy in a natural rate model", *Journal of Political Economy*, vol. 91, August, pp. 589-610.

Bayoumi, T. and B. Eichengreen (1994), "One money or many? Analyzing the prospects for monetary unification in various parts of the world", *Princeton Studies in International Finance*, no. 76, September.

Bean, C.R. (1992), "Economic and Monetary Union in Europe", *Journal of Economic Perspectives*, vol. 6, Fall, pp. 31-52.

Caskey, J. and S. Fazzari (1987), "Aggregate demand contractions with nominal debt committments: is wage flexibility stabilizing?" *Economic Inquiry*, vol. 25, October, pp. 583-97.

De Grauwe, P. (1994), *The Economics of Monetary Integration*, Oxford University Press, Oxford.

Eichengreen, B. and C. Wyplosz (1993), "The unstable EMS", unpublished paper, presented to the Brookings Panel on Economic Activity, April.

Friedman, B.M. (1990), "Targets and instruments of monetary policy", in B.M. Friedman and F.H. Hahn eds, *Handbook of Monetary Economics*, vol. 2, North-Holland, Amsterdam.

McKinnon, R. (1963), "Optimum currency areas", *American Economic Review*, vol. 53, pp. 717-25.

Mundell, R. (1961), "A theory of optimum currency areas", *American Economic Review*, vol. 51, pp. 657-65.

Niskannen, W. (1971), *Bureaucracy and Representative Government*, Aldine-Atherton, Chicago.

Palley, T.I. (1990), "A theory of downward wage rigidity: job committment costs, replacement costs, and tacit coordination", *Journal of Post Keynesian Economics*, vol. 12, pp. 452-66.

Palley, T.I. (1994), "Escalators and elevators: a Phillips curve for Keynesians", *Scandinavian Journal of Economics*, vol. 96, pp. 117-23.

Palley, T.I. (1996), "The institutionalization of deflationary policy bias", *Monnaie et Production*, vol. X of *Economies et Sociétés*, pp. 249-70.

Pivetti, M. (1993), "Bretton Woods, through the lens of state-of-the-art macrotheory and the European Monetary System", *Contributions to Political Economy*, vol. 12, pp. 99-110.

Poole, W. (1970), "Optimal choice of monetary policy instruments in a simple stochastic macro model", *Quarterly Journal of Economics*, 84, pp. 197-216.

Tobin, J. (1972), "Inflation and unemployment", *American Economic Review*, vol. 62, May, pp. 1-16.

Tobin, J. (1978), "A proposal for international monetary reform", *Eastern Economic Journal*, July-October, reprinted in J. Tobin, *Essays in Economics: Theory and Policy*, The MIT Press, Cambridge, Mass., 1982.

Tullock, G. (1965), *The Politics of Bureaucracy*, Public Affairs Press, Washington.