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Europe 1992: Macroeconomic Implications

ONLY A FEW YEARS ago Europe was beset with stagnation and mass unemployment. A Brookings study, concluding that accepting the state of European unemployment was not a solution, recommended a two-pronged attack involving macroeconomic stimulus and microeconomic flexing.[1] Europeans, particularly the Germans, considered the first a typically American naivete. They accepted the second as an inevitable suggestion, about which nothing much could be done.

Under the heading of Europe 1992, the discussion has now moved from Eurosclerosis to the growth potential of the internal market, and Europessimism has yielded to pervasive Europhoria. Together with the sharp fall in oil prices in 1987, the disinflationary effects of dollar depreciation, and expansionary policy measures, Europe 1992 has set the stage for growth. Table 1 shows an outlook for European economic growth that two years ago would have been considered extravagant. Where stagnation had almost seemed inevitable, with discussion of work-sharing a routine response, the prospects have now shifted altogether.

This paper first assesses the macroeconomic implications of the internal market project. That assessment highlights the sources of improved macroeconomic performance, its likely magnitude, and its spillover to the rest of the world. I turn then to three special areas, the prospects for European protectionism, the implications of financial integration, and the fiscal effects of the present exchange rate system.

1. Lawrence and Schultze (1987).

Table 1. European Growth, Actual, 1961–87, Selected Years, and Projected, 1988–90
Percent per year

Item	*1961–73*	*1974–81*	*1982–87*	*1988–90*[a]
GDP	4.8	1.9	2.1	3.4
Investment	5.6	5.6	1.7	6.7
Employment	0.3	−0.1	0.2	1.4

Source: Commission of the European Communities (1989b).
a. Forecast, May 1989.

The Aggregate Effects

Europe 1992 is a supply-side revolution designed to generate growth by overcoming the segmented, uncompetitive markets that have survived the lowering of tariff barriers. The removal of physical, fiscal, and regulatory obstacles to competition across borders is at the center of the initiative. European Community estimates of the medium-term (six years) macroeconomic effects anticipate a 4.5 percent higher GDP as a result of these changes.

Four broad categories of policy measures are expected to generate beneficial effects. The first is removal of border controls. The second is EC-wide access to public procurement. The third is full capital mobility both for asset holders and for suppliers of financial services. And the fourth is measures to encourage increased competition and scale economies.

Modeling Productivity Gains

Some of the Europe 1992 benefits can be represented as gains in productivity, or output. These gains can arise in several ways as a result of opening and unifying the European market. Suppose the production function for output is linear homogeneous in capital, labor, and intermediate inputs, X.

$$Q = F(K, L, X). \tag{1}$$

The value-added function, V, can then be written as

$$V = \Theta(p)G(K, L), \tag{2}$$

where p measures the real price of intermediate goods.[2] A decline in the real price of intermediate goods because of competition or reduced costs of transborder shipment therefore operates in the way of technical progress by shifting out the aggregate production function.

Productivity gains from the removal of transborder obstacles can also be modeled as arising from an increase in the variety of intermediate products available to firms. A formulation by Paul Romer emphasizes the size of the market in sustaining the profitable production of specialized intermediate goods.[3] Because of the presence of fixed costs, the larger the market the larger the range of specialization that can take place. Let the production function for final goods be

$$Y = L^{1-\alpha} \Sigma x_I^{\alpha},$$

where x denotes the quantity of an intermediate good.[4] Let there be M intermediates and assume that it takes one unit of labor to produce a unit of the intermediate. The labor requirement for intermediates then is $L_I = Mx$ and that leaves $L_F = L - L_I$ of labor for final goods production. The aggregate production function for final goods can be rewritten as

$$Y = (L - L_I)^{1-\alpha} L_I{}^{\alpha} M^{\alpha}.$$

The Romer formulation points out that in addition to labor input, variety (proxied by M, the number of different inputs) is a determinant of the level of output. Merging two equal-sized economies increases the aggregate output, not because of scale economies to labor, but because it allows the production of a larger variety of specialized inputs. Scale is essential to exploit this variety bonus because of fixed costs.[5] There is also a gain from the more traditional scale economies that result from declining average variable cost. Raising the scale of operation of individual firms is in this case the source of gain in productivity. Europe-wide operation for firms with scale economies raises their productivity and frees resources as firms merge into more efficient scale.

2. See, for example, Bruno and Sachs (1985).

3. Romer (1989).

4. For simplicity, assume that the quantity of each intermediate good used is the same, so that $x_I = x$. This symmetry result would emerge if the production of each intermediate had the same constant unit labor cost.

5. This analysis applies to intermediate goods, but the same argument can be brought for the benefits of increased variety to consumers.

Measuring Productivity Gains

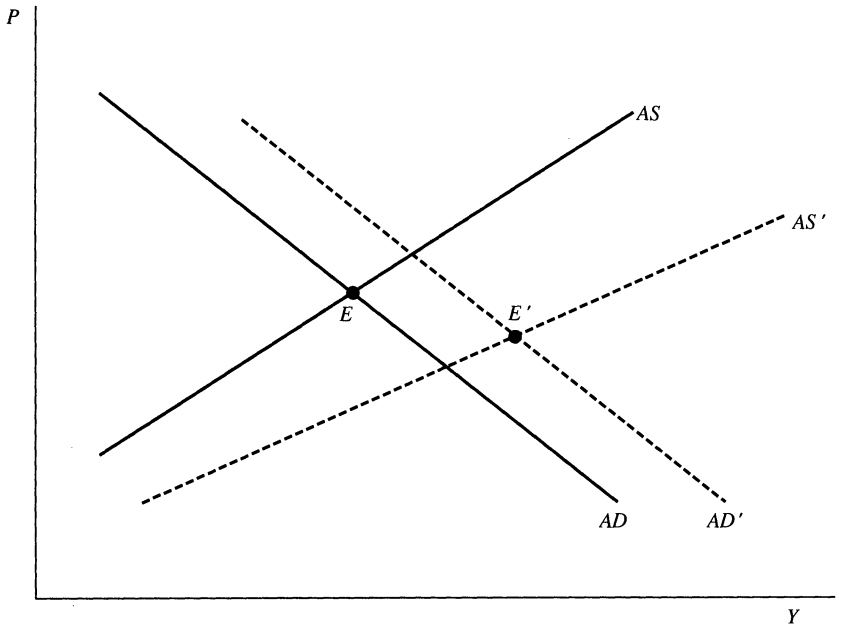
There are two ways to conceptualize and possibly measure the benefits of Europe 1992. One is to use a general equilibrium model of production to assess the impact of the policy measures on potential output and its growth, assuming that the economy is always at full employment. The other is to evaluate the benefits in terms of a medium-term macroeconomic model where demand factors are critical. An example shows the contrast between these approaches.

Consider the removal of border controls and the associated red tape. The effect is to increase the value of potential real GNP, measured in a welfare perspective. The labor services involved in transborder inspection and red tape, both in the private and the public sector, are part of GNP as officially measured. But the services do not directly contribute to welfare. When they are shifted to alternative uses, aggregate measured GNP does not rise, but welfare associated with the unchanged output increases. In the full-employment model, removal of border formalities appears as a reduction of an implicit tax on traded intermediates or final goods and as an increase in the labor and capital resources available for regular production. In the macroeconomic perspective, by contrast, the possibility of unemployment emerges. The question is by what mechanism former customs officers are absorbed into productive employment.

Both perspectives capture some important issues, but miss others. The full-employment view risks missing cyclical problems of adaptation, and the macroeconomic view is likely to downplay changes in the level and path of potential output. The EC projections rely substantially on macroeconomic channels, feeding Europe 1992 effects into the model as shocks—either reductions in interest cost (fed into the investment equation) or general increases in exogenous productivity growth. The former works through aggregate demand effects on growth; the latter translates into a more favorable growth-inflation trade-off and from there into higher growth.

An aggregate demand and supply model helps show the effects. On the aggregate demand side the chief net effects are two. First, trade diversion toward Europe raises aggregate demand. Because of the removal of intra-European obstacles to trade, European locations are favored, and hence demand for output produced in Europe rises. Second,

Figure 1. The Effect of Europe 1992 on Output and Prices



the increased profitability translates into a rise in investment. Financial integration, by reducing credit rationing and lowering financial costs, works in the same direction. Thus, as figure 1 shows, aggregate demand rises from *AD* to *AD'*, holding constant the structural budget and the nominal quantity of money. On the aggregate supply side, productivity growth shifts the aggregate supply schedule out from *AS* to *AS'*. The reduction in trade impediments and increased competition likewise reduce supply prices. The new equilibrium at point *E'* shows that Europe 1992 leads to higher output and a change in the price level that will depend on the relative strength of demand- and supply-side effects.

Europe 1992 will succeeed to the extent that it raises demand while at the same time creating a favorable inflation-growth trade-off and a favorable external balance. In such a scenario, demand will create growth, and the policy authorities will not feel compelled to stop the growth because of inflation concerns or because of fears that unsustainable external imbalances might develop. Table 2 shows European Community estimates of the direct effects of Europe 1992 policies,

Table 2. Macroeconomic Impact of the Internal Market after Six Years
Percent except as noted

Item	*GDP*	*CPI*	*Budget (percent of GDP)*	*External balance (percent of GDP)*	*Employment (millions)*
Removal of border controls	0.4	−1.0	0.2	0.2	0.2
Public procurement	0.5	−1.4	0.3	0.1	0.3
Financial services	1.5	−1.4	1.1	0.3	0.4
Supply effects	2.1	−2.3	0.6	0.4	0.8
Total[a]	4.5	−6.1	2.2	1.0	1.8

Source: Emerson (1988, table 10.2.1).
a. Average estimate.

including any induced macroeconomic effects, but without taking into account changes in macroeconomic policy reactions such as increased public spending.

The first three rows of the table report on the effects of measures that are straightforward, even if the economic measurements of gains may be difficult: removal of border controls, Europe-wide competition in public procurement, and cross-border competition in financial services are all clearly defined. The remaining category of dynamic supply-side effects is less clear. Under this heading comes a large range of deregulation measures that are expected to promote more competitive markets and markets that use scale economies more powerfully, two expectations that could be in conflict. Financial service integration and supply-side policies account for most of the effect on real GNP. All policies tend to reduce inflation relative to the baseline scenario, improve the budget, and improve the external balance.

The stronger the productivity effects—here is where the supply-side effects in table 2 come into play—the more likely that there can be a substantial increase in output without significant inflation. In fact, by predicting a decline in inflation, the EC has explicitly created a scenario with room for further policy initiatives, initiatives that can exploit the decline in inflation and the improvement in the budget arising from stronger growth.

Table 3 sets out EC simulations of expansionary fiscal policies—increased government spending—that reinforce the direct impact of the program, taking advantage of the perceived elimination of inflation,

Table 3. The Role of Macroeconomic Policy
Percent except as noted

Policy	*GDP*	*CPI*	*Budget (percent of GDP)*	*External balance (percent of GDP)*	*Employment (millions)*
Unchanged policy	4.5	−6.1	2.2	1.0	1.8
Expansionary policy[a]					
Budget unchanged	7.5	−4.3	0	−0.5	5.7
Current account unchanged	6.5	−4.9	0.7	0	4.4

Source: Emerson (1988, table 10.2.2).
a. Increases in government spending.

budget, and external constraints on expansionary policy. These simulations are made in two ways: assuming that the actual budget deficit is kept unchanged and assuming that the external balance is kept unchanged. The expansionary policies trade off a reduction in the disinflation effects for increased growth—2 percent to 3 percent. On the employment side the impact is massive, presumably because the fiscal support is targeted toward employment with major European infrastructure projects. One more percentage point of real GDP translates into 1.3 million more jobs. Four million jobs would reduce unemployment by about one-third.

Evaluation

The EC simulations show that output rises under both assumptions in the first two years, but that actual employment declines initially except as a result of freeing up public procurement.[6] The initial decline in employment sustains the expansionary impact of the measures because it reduces inflationary pressure and, therefore, for a given growth path of nominal money or nominal income, allows an increase in real growth that ultimately creates employment.

How seriously must these EC estimates be taken? They are the only available estimates, but otherwise there is no reason to attach undue significance to them. The margin of error is large simply because there are no available models with which to evaluate multicountry, multisector

6. See Emerson (1988, tables B.1–B.4).

supply-side economics both in terms of long-run growth and short-run macroeconomics. A more interesting question is whether important policy issues are bypassed or whether the modeling leaves issues unsettled. That seems the case in several respects. There is no clear distinction between the effect of the measures on potential as opposed to actual output. There is no explicit consideration of whether the aggregate demand effects would work fast enough to harvest the gains in potential output. And there is no consideration of whether real wage rigidity could stand in the way of employment gains.

The EC estimates include no measure of the gain in potential output that Europe 1992 could deliver. The only gains that are estimated represent a mix of productivity shocks and macroeconomic adjustment. As a result, one cannot even determine whether the full potential of Europe 1992 is implemented or whether the actual growth gains fall short of potential. And if the latter is the case, it is not apparent what stands in the way. There is clearly an implicit model of inflation constraints on allowable growth that never comes entirely to the forefront.

Regarding short-run dynamics, many of the policy measures initially translate into labor redundancy. At given output levels, labor demand would decline and unemployment would rise. An expansion in employment requires a significant increase in real aggregate demand. The demand expansion relies on increased investment and on the trade diversion effects relative to the rest of the world, and it is implicitly assumed that the decline in employment at the initial level of output does not have important aggregate demand effects. Unemployment compensation, for example, could eliminate aggregate demand effects, but then budget improvement would not be as strong as it is represented in table 2. Thus, if there are substantial immediate productivity benefits, the employment-demand relation needs to be given more emphasis. By contrast, if productivity growth depends substantially on investment, an initial demand-driven phase needs to be implemented that would bring with it more, not less, inflation.

The estimates of the direct effects of the internal market project show a quite significant fiscal improvement. Even if these projections are assumed to be plausible, the question remains whether governments will be willing to use these resources for infrastructure projects or environmental plans or whether they will use them to contain the buildup of public debt. In most European countries debt ratios have not stabilized,

and in some they are extremely high. Therefore, it would seem that the assumption of increased government spending or tax reductions may be optimistic.

The assumption of expansionary fiscal policy is also in question because of possible distribution effects. The internal market project in itself assumes fiscal harmonization, particularly in respect to value-added taxes; and that may require new fiscal resources in some countries, including, for example, Italy. More generally, some regions may do very well, both in terms of growth and the budget, and others poorly. The implication, in the absence of a transfer mechanism, is that the complementary fiscal expansion might not take place. Some regions that can afford it may not need it, and others may operate under fiscal constraints that do not permit expansionary measures.

The macroeconomic simulations reveal the implicit constraints and instruments. Monetary policy is not one of the instruments even though the internal market project itself is perceived as a program that leads to disinflation and labor market slack. Macroeconomic stimulus is seen as coming entirely from fiscal expansion, not from a transitory increase in monetary growth. The reason is presumably a super-monetarist view that links inflation directly to money growth, not to employment, unemployment, slack, or shocks.

A more appropriate complementary macroeconomic policy setting would be to use both monetary and fiscal policy. Easier money (used fully to absorb the entire disinflation) could help reduce real interest rates and thereby provide even more scope for fiscal policies to aid expansion.

It is not surprising that the Commission in Brussels did not tread this path. Money growth is made in Germany, where the authorities, quite beside abhorring the notion of European settings for money growth, believe that there is already full employment. Monetary stimulus in response to potential results would be expected simply to cause inflation.

Thus, expansionary macroeconomic policies may be forthcoming if in fact budgets do improve and disinflation is apparent. But European governments will not start a macroeconomic expansion early to absorb any initial adverse employment effects of Europe 1992. That in turn lessens the dynamism of the project and puts policymakers more on the defensive as they contemplate serious productivity measures.

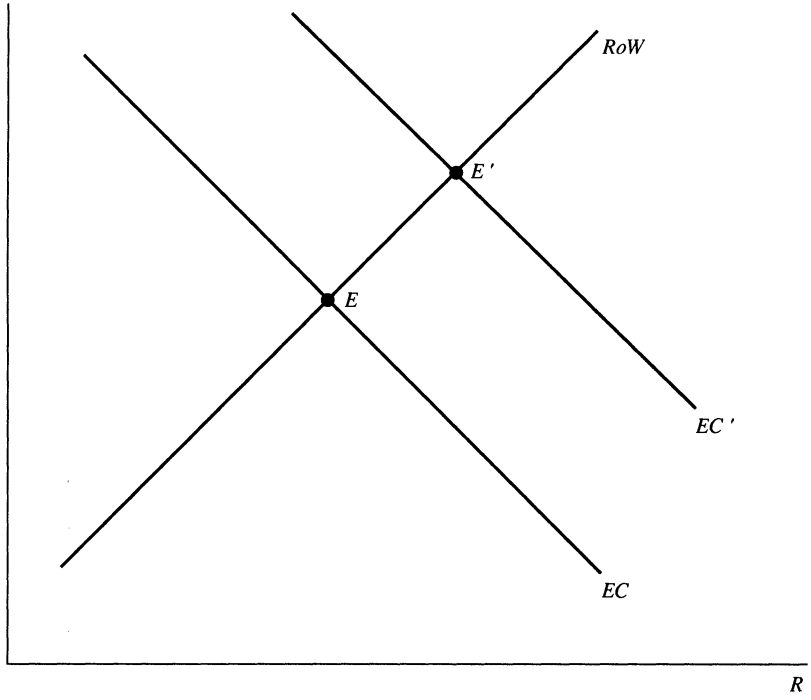
Another problem with the projections concerns employment gains.

The implicit European model emphasizes real wage and labor market rigidities as obstacles to employment. Some of the Europe 1992 measures taken by themselves reduce employment at each level of output, yet the projections call for employment gains between 1.8 million and 5.7 million jobs, depending on macroeconomic policies. Even 1.8 million is an ambitious estimate, since it amounts to a gain of about 1 percent in total employment, and a regression of employment growth on output growth for the period 1961–88 suggests that it takes a 5 percent increase in output growth to raise employment by 1 percent. But that does not allow for the fact that at least part of the output growth in the years ahead is due to an unusual productivity bonus that in itself will reduce employment. Thus, the net employment gains reported in table 2 may well be too generous. That is certainly the case for the simulations that envisage fiscal expansion.

The macroeconomic discussion is also incomplete because it does not make fully explicit the effects on real interest rates and terms of trade and the effects on relations with the outside world. There are two opposing forces at work. European output growth raises demand for goods worldwide and hence leads to a terms of trade improvement for outsiders. But part of the adjustment to Europe 1992 specifically involves trade diversion: a European production location, because of the reduction in intra-European barriers, becomes the preferred option. That will tend to worsen the terms of trade for outsiders.

Figure 2 combines the investment effects discussed above and the impact of Europe 1992 on the trade balance. The vertical axis shows the world real interest rate, r, and the horizontal axis, the terms of trade of outsiders, R. An increase in R is a gain in competitiveness for the rest of the world, *RoW*. Along *RoW* there is market clearing in the rest of the world: higher real interest rates reduce demand and require a gain in competitiveness to sustain full employment. Along the schedule *EC* Europe has goods market equilibrium. Starting at point E, Europe 1992 creates investment effects in Europe. There are also offsetting effects on the trade balance from the gain in potential output and from trade diversion. Supposing that the latter two cancel, thus leaving the schedule *RoW* unchanged, the net effect is the increase in investment opportunities that shifts *EC* out and to the right. At the new equilibrium point E' there is a higher world real interest rate and a real appreciation for Europe.

Figure 2. The International Effects of Europe 1992



The gain in European terms of trade is required to sustain full employment in the rest of the world as higher real interest rates crowd out demand. But higher real interest rates imply that fiscal balances, because of debt service, might not improve as much as predicted, and that means the scope for extra fiscal expansion would be reduced.

In conclusion, the growth effects of Europe 1992 are open to many questions, and it is tempting to argue that the disinflation-with-growth scenario is primarily a politically convenient portrait. But as everybody can see, Europe's economy is growing. Investment, output growth, and employment growth all are showing a sharp upward movement. One explanation that is not captured in the EC projections is animal spirits—an investment and employment boom brought about by a wave of optimism.

Animal Spirits

The animal spirit effect can be expressed in terms of the new Keynesian economics of investment.[7] The possibility of increased market size offered by Europe 1992 may lead firms to invest to position themselves for the exploitation of oligopolistic rents. The argument can be put in terms of the models of the option value of waiting and the emphasis on the interdependence of profits. Oligopolistic firms that face uncertain returns on quasi-irreversible investments will expand capacity only when the return on such a move is sufficiently front-loaded to overcome the value of waiting. This front-loading emerges in the Europe 1992 context in two ways. First, firms need a market presence to exploit their profit opportunities. A changing market profile requires investments now to preserve or exploit opportunities that otherwise are lost by the entry of other firms. Thus the race to be first triggers a competitive burst of investment. Second, because profits are strategically interdependent, the expectation of a Europe 1992 effect leads to the expectation of an increased profit opportunity for those firms who have the capacity in place. In the language of the new Keynesian economics, Europe 1992 works as a coordination mechanism.

Of course, increased investment profitability must be linked with saving for investment actually to take place. The increase in potential output at a given saving rate would provide resources for investment. If planned investment rises more than the increase in saving, real interest rates will rise and attract saving from the rest of the world. The more Europe 1992 leads to the perception of dynamic gains, the more likely it is to bring with it a high real interest rate environment.

Increased Protection in Europe?

Non-Europeans often wonder whether the European internal market project will lead to a "Fortress Europe." Will Europe, as a result of the competitive tensions that emerge in the completion of the internal

7. See Bentolila and Bertola (1987); Pindyck (1986); Dixit (1989); and Murphy, Shleifer, and Vishny (1989).

market, turn more protectionist toward the rest of the world?[8] And, more generally, is Europe 1992 primarily good or bad news for the rest of the world, particularly the United States? Naturally, European policymakers publicly declare that there is no risk of protection. But the possibility already attracts investment by outside producers.

Even without specific protectionist measures, Europe 1992 is expected to have some adverse effects on the rest of the world. The gain in competitiveness of European locations—for example, shipping from France to Germany becomes easier—will bring about trade diversion at the expense of extra-EC suppliers. Detailed estimates of the impact of such measures as removing barriers to trade suggest that imports from outside Europe will decline between 7.9 percent and 10.2 percent.[9] As the scenario reviewed in table 2 shows, the EC external balance is expected to improve by 1 percent of GDP as a result of trade-diverting effects of the internal market. The EC scenarios leave no question that adverse effects on the rest of the world are expected.

Adverse effects can also come from outright protectionist measures—or the threat of such measures. In sectors where scale economies increase market concentration and hence cause plant closings, for example, protection will seem justified: if Europe can achieve operations of minimum efficient scale on her own, import limitation will seem a natural counterpart of the internal opening up. And the political pressure will clearly run in that direction. A second area of vulnerability is public procurement. It is one thing to open up procurement to cross-border competition in Europe; it is quite another to open it to outside suppliers. The question of import content is certain to arise—as it has already for Nissan cars produced in the United Kingdom—and a tendency toward minimum European content is virtually certain. As a third example, multinationals, already anticipating the implicit or explicit adverse effects on outsiders, are preemptively making relocation decisions. Even if no outright protection ever occurs, the risk is enough to create tariff factories precisely in the way they have been created in the United States. The effect of these investments is to move production away from the rest of the world. Once plants are relocated inside Europe, production has been relocated whether there is a tariff or not.

8. See Skolnik (1988) for some reactions.
9. See Emerson (1988, tables A.5 and A.6).

That Europe 1992 carries the potential of protection against outsiders is apparent from the scramble of the countries of the European Free Trade Association to position themselves by a direct association. The EFTA countries, for all intents and purposes, are seeking to enlarge Europe 1992 with the concept of a "European Space." With so much emphasis on Europe, one is hard pressed to believe that the rest of the world will not be hurt.

The main reason that protection may ultimately increase stems from Europe 1992's "social dimension," which involves a harmonization of labor market arrangements, from job security and job place safety to wages and social security benefits. The issue is important because labor cost disparities, unadjusted for productivity, are extraordinary. If they are significantly reduced, by increases in labor cost in the low-wage countries, the latter will become uncompetitive relative to outsiders and will be likely to call for protection.

Table 4 shows hourly compensation in various EC countries. From the extent of the divergences, it is clear that a full leveling cannot happen in the near future, but it is equally clear that far more mobility of goods, services, and labor will make some harmonization likely.

How far harmonization will go is unsettled. It is highly unlikely that Spain, Portugal, and Greece will become high-wage countries unable to compete internally or externally. But it is also unlikely that the social dimension will go nowhere: unions are an integral part of the (continental) European political scene, and socially responsible behavior involves recognition of union participation in major political decisions. Unions, therefore, will help shape Europe 1992, and that means a fair part of the social dimension will take place. With some tendency toward harmonization, Spain, Portugal, and Greece will become higher-cost producers and lose some of their competitiveness relative to outside suppliers. Protection will thus arise as a natural complement to European labor market harmonization.

In its 1988–89 annual report, the Commission notes:

> Catching-up in economic terms must go hand in hand with catching-up in social terms, while maintaining basic social standards in the more advanced countries. Thus, apart from its regional aspects, the social dimension of the internal market is essential. The lower real wage levels and less onerous social regulations in the less advanced countries are comparative advantages which enable them to make progress in the catching-up process. In addition, minimum health and safety

Table 4. Hourly Compensation in Manufacturing, Seven European Countries, 1988
Index, United States = 100

Country	*Compensation*
West Germany	130
Italy	93
France	93
United Kingdom	76
Spain	63
Greece	34
Portugal	20

Source: U.S. Bureau of Labor Statistics, unpublished data.

standards at work and the pursuit by Member States, according to Article 118a of the EEC Treaty, of the objective of harmonizing conditions in this area, while maintaining the improvements already made, will contribute to better working and living conditions as well as to avoidance of distortions in competition between the firms of different Member States.[10]

There is clearly a tension between harmonization and competitiveness, leveling and upgrading, that remains unresolved.[11] European protection, if it does occur, is expected to be primarily directed against Asia rather than the United States. That seems commonly accepted even if it is not written on paper.

Financial Integration

The macroeconomic simulations give an unreal impression of what can be said about the effects of Europe 1992. Not only is the social dimension a wide open issue, but the way in which other measures operate is still to be determined. This is especially the case for financial intermediation.

The EC study envisages that cross-border competition in financial services will have a major impact on financial service prices, spreads, and the cost of capital. Compared with the average of the four lowest-price countries, Germany, for example, has at present a very high cost of consumer credit, while Belgium has a low cost. Price divergences at

10. Commission of the European Communities (1988a, pp. 38–39).

11. Giersch (1989) has especially noted the implications of a corporatist strategy where harmonization within leads as a natural counterpart to protection against outsiders.

the retail level would shrink substantially for banking services, insurance, and security transactions. In Spain the decline in financial service prices might be as large as 21 percent, in Germany 10 percent, and in the Netherlands only 4 percent.[12] A complementary, but rarely discussed, aspect of trade in financial services is the impact on credit rationing. The restrictions on capital mobility for asset holders and the inability to compete in services across borders at present leaves the regional and national saving pools substantially unconnected. In the wholesale Eurodollar there is already substantial mobility, as Giavazzi and Giovannini have documented.[13] But in the retail market many forms of credit remain segmented and nontraded. There is local lending of local deposits, and small and medium-sized firms are typically unable to obtain credit except locally. Credit rationing is pervasive, and financial integration, drawing on the U.S. experience with securitization, may be a very radical experiment.[14]

Financial integration is likely to have two effects. One is that while spreads narrow, interest rates that are now repressed may actually rise throughout Europe and especially in high-saving countries like Spain. At the same time, firms and households will find it easier to finance themselves in a more competitive market so that credit rationing will be less pervasive.

In the past, in the presence of budget deficits, credit rationing has crowded out business investment and consumer spending. With the internationalization of markets, this tendency can lessen significantly as firms can tap the European capital market, crossing national borders. The possibility therefore emerges that those countries where credit rationing has kept investment low will now borrow in the European capital market both to finance public sector deficits and to increase investment rates as well. Forecasts for Spain and Italy anticipate such increases in foreign borrowing.[15]

12. See Emerson (1988, p. 105).

13. Giavazzi and Giovannini (1989b).

14. The analogy with the U.S. mortgage market is useful. In the 1960s local savings and loans collected local deposits and made local loans. Today U.S. mortgages are securitized and traded internationally.

15. Commission of the European Communities (1989b).

Fiscal Convergence and Public Debt

Fiscal policies in the EC countries have converged in the 1980s. Differences in inflation have narrowed, and fiscal convergence has meant a shift toward primary budget surpluses everywhere. Table 5 shows the progress in reducing primary deficits and turning them into surpluses.

The internal market project has also strengthened the prospect of increased and perhaps complete monetary integration. The European Monetary System was invented to shield Europe from financial instability exported by the United States in the late 1970s. Initially created as a zone of monetary stability in Europe, it later became a project of disinflation.[16] But although the disinflation effort has been quite successful, a formal system of fully fixed exchange rates has not been established. That creates a delicate situation: interest rates reflect the possibility of further exchange rate alignments even though governments are more or less committed to maintain current exchange rates. For countries with high debt ratios, this represents the worst possible situation because realized real interest rates are high and debts are growing rapidly.

The favored approach at this time, as presented for example in the Delors Report, is to solidify, if not institutionalize, monetary integration. One possibility, favored by Germany, is to broaden rapidly the scope for capital mobility, which would test just how far the partner countries are willing to go in the direction of German monetary policy. With sharply increased capital mobility scheduled to be implemented by 1991, no important departure from German performance can be consistent with the free flow of capital and fixed rates.

The same direction is favored by central banks, in Italy especially, but also in Spain and France, where they traditionally have been appendages (or cash windows) of the national Treasuries. The disinflation experience of the 1980s in which exchange rate stability was central to establishing lower inflation and, possibly, a reputation for anti-inflation commitment, had an extraordinary side effect: it made central banks

16. See Giavazzi and Pagano (1988); Giavazzi and Giovannini (1989a, 1989b); Giavazzi, Micossi, and Miller (1988); de Cecco and Giovannini (1989); Ungerer (1989); Cobham (1989); and Schinasi (1989).

Table 5. Debt and Deficits, European Community, 1981 and 1988
Percent of GDP, general government, except as noted

	1981			*1988*		
		Deficit[a]			*Deficit*[a]	
Country	*Debt-GDP ratio*	*Total*	*Primary*	*Debt-GDP ratio*	*Total*	*Primary*
Europe 10	0.41	3.8	1.4	0.59	2.9	−1.8
Belgium	0.76	12.6	4.8	1.27	5.9	−4.5
Denmark	0.39	6.9	1.6	0.63	−1.0	−8.5
Germany	0.33	3.7	1.4	0.45	0.8	−2.0
Greece	0.29	11.0	7.9	0.74	12.8	3.2
France	0.25	1.9	−0.1	0.37	1.7	−1.1
Ireland	0.77	13.4	6.8	1.19	5.1	−4.3
Italy	0.59	11.3	5.2	0.94	9.9	1.0
Luxembourg	0.14	3.6	2.7	0.10	−5.6	−6.7
Netherlands	0.46	5.5	1.0	0.79	4.5	−1.5
Portugal	0.37	9.2	4.1	0.72	6.1	−2.4
Spain	0.18	3.9	3.1	0.48	3.2	−0.3
United Kingdom	0.52	2.6	2.4	0.49	−1.2	−4.7

Source: Commission of the European Community, *European Economy*, various issues.
a. A minus sign denotes a surplus. The primary budget deficit excludes interest payments.

independent. The bureaucratic response, especially in Italy, has been a fervent commitment to more of the same—aggressive deepening of monetary integration. Better to be a branch of the Bundesbank than an agency of the Tesoro.

But even though the experience of the 1980s has progressively hardened nominal exchange rates, there remain doubts about just how fixed the rates are and how permanently inflation differentials have vanished. For example, in 1988 unit labor costs (in dollars) increased by 3.4 percent and 2.9 percent, respectively, in Denmark and Italy, while they rose only 1.9 percent in Germany.

Asset markets clearly have not taken the view that exchange rates are now fixed. The last realignment, in January 1987, was preceded by general realignments in 1986 and 1983. In the fall of 1989 the possibility of another realignment to accommodate the Danish loss of reserves was widely discussed. The fact that inflation differentials have narrowed sharply and no realignment has occurred in two and a half years has not

Table 6. Interest Rates in the EMS, 1989:2
Percent except as noted

Country	*Deposit rate*	*Money market*	*Government bond*	*Debt-GDP ratio*
Belgium	5.1	6.5	8.4	1.27
Denmark	8.3	8.7	10.6	0.63
France	5.6	8.6	8.8	0.37
Germany	5.2	6.2	7.0	0.45
Ireland	3.9	9.2	9.1	1.19
Italy	7.0	12.5	10.6	0.94
Netherlands	3.5	6.6	7.2	0.79
Spain	9.5	14.8	13.6	0.48

Sources: Figures for Spain from Morgan Guaranty Trust Company (1989); for all other countries, from International Monetary Fund (1989). Debt-GDP ratios from Commission of the European Communities (1988a).

translated into an equalization of long-term interest rates. Yield differentials remain substantial, as table 6 shows.

The long-term interest differentials, assuming they do not primarily reflect taxation, suggest that markets anticipate general depreciation against the deutsche mark, except in the Netherlands. Moreover, the extent of anticipated depreciation is sizeable.

Interestingly, the term structures are quite flat. One cannot therefore take the view that there is a high probability either of a near-term realignment (the case of a negative term structure) or a distant one, reflected in a "peso problem" term premium. In fact, it is not clear what the yield differential relative to Germany suggests, other than that fixed rates are not expected to last forever.[17] And this uncertainty about exchange rates translates into a fiscal problem in countries with high government debt.

The countries with the weakest fiscal position are also the ones with the highest interest rates and the ones most committed to fixed rates. As a result, their budget deficits are large, and their government debt ratios are growing (see table 7). The problem worsens the more a government is actually committed to maintaining exchange rates and the less it is believed: in that case large realized real interest rates add year after year to the debt burdens. In 1985–87, for example, realized short-term interest

17. For a further discussion, see Dornbusch (1989a) and Giavazzi and Giovannini (1989b).

Table 7. The European Problem Debtors, 1989
Percent of GDP except as noted

Item	*Belgium*	*Ireland*	*Italy*
Debt-GDP ratio	1.28	1.18	0.98
Deficit			
Total	5.9	5.1	9.9
Primary	−4.8	−4.6	0.9
Inflation-adjusted	2.3	1.1	4.7

Source: Commission of the European Communities (1988a).

rates averaged 2.1 percent in Germany. By contrast, they averaged 4.3 percent in Italy, 9.4 percent in Denmark, and 6.4 percent in Ireland.[18] Because of these high realized real interest rates, debts kept growing relative to GDP. A related difficulty, also a by-product of the low-inflation policy, was the shift in deficit finance. Before the disinflation and fixed exchange rate commitment, Italy, for example, had financed a significant share of the deficit by money creation. But with fixed exchange rates and low inflation, the scope for inflationary finance was gone, and debt creation was the rule.[19] The growing debt ratios, of course, imply increased tax burdens in the future. Although the form and incidence of these taxes is uncertain, their presence makes high-debt countries poor locations for production.

The debt issue points to the need for major reform in two directions. One is to reduce the exchange risk premiums that now exist in real interest rates, the other is to reduce the budget deficits. The two policies are strictly complementary. Increasing ratios of debt to GDP are clearly not possible for a long time once the 100 percent threshold has been passed. Without a prospect of significantly higher growth or much lower future real interest rates, there is a need for reduced deficits. Without a prospect of deficit reduction and lower real interest rates, asset holders must ultimately expect debt repudiation in some form. That expectation would lead to yet larger risk premiums and even more rapid growth in debt.

Along with increased taxation and a more productive tax structure, a move toward much more rapid and firmly committed monetary policy

18. See OECD (1989).
19. On this point, see Dornbusch (1988) and Giavazzi (1989).

must also take place. To avoid the fiscal costs associated with exchange rate uncertainty, governments in soft-currency countries like Italy can pressure for increasing exchange rate fixity. They can immediately discard the 6 percent margin for exchange rate fluctuations and peg the deutsche mark without any margin. This would signal a much stronger commitment to fixed rates. The strategy is attractive because it is already widely believed in Europe that monetary policy is no longer effective. Monetary policy is made in Frankfurt, and any independence is not only an illusion, but is also expensive in terms of debt service.

Making the EMS fixed exchange rate project more credible may be even more important than the internal market project. The sheer passage of time makes this so, particularly when on strategic occasions a government denies itself the comfort of a devaluation. But the progress is far too slow, given the adverse fiscal results of lingering exchange rate uncertainty.

It is not obvious that a fixed nominal exchange rate offers a solution for all of the EC members at this time. Spain has an inflation rate of 7 percent; Portugal, 13 percent; and Greece, 15 percent. Clearly these countries are far away from German inflation, and any use of fixed nominal exchange rates to control inflation is misguided since it will produce overvaluation and ultimately a currency devaluation crisis. These countries would be better off pursuing a fixed real exchange rate policy, depreciating their currencies at a rate equal to the inflation differential with Germany. They would have inflation, and the fiscal advantage of seigniorage, but they would avoid high real interest rates and instability from real exchange rate variability. The argument against such a proposal is that without a nominal anchor there is no stability of inflation. That is true, but with a nominal anchor real instability may be worse.[20]

International Financial Competition

The formation of a European financial block has a major impact on world financial markets because it creates a viable and even attractive alternative to the U.S. capital market. The issue is not whether there

20. See Dornbusch (1982, 1988) and Canzoneri and Rogers (1989).

will be an ECU market; more likely, the European capital market will rapidly adapt to the U.S. experience and offer money market accounts denominated in deutsche marks and with favorable tax treatment.[21] What will the availability of a convenient market in mark (or equivalent) money market instruments do to the dollar? Surely, with such competition the demand for dollar-denominated assets declines relatively. There is no suggestion, even remotely, that the dollar will disappear as an international asset. The fact, though, is that a market of the size of Europe and with the support of German monetary orthodoxy, which now has become the common denominator, does offer a major alternative. Adverse current account effects of Europe 1992 for the United States and financial integration with the creation of a competitive European asset are bound to imply a major dollar depreciation in the 1990s.

21. Earlier this year Germany rolled back an already announced increase in withholding taxes on income from capital in the face of an exodus of tax payers. The lesson would seem to be that there is no obstacle to Germany as a low-tax location for a European money market.