ECONOMIC AND MONETARY IMPLICATIONS
OF GERMAN UNIFICATION

by

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The fall of the Berlin Wall, on November 9, 1989--followed in short order by the creation of the German Economic and Monetary Union, in July 1990; the political unification of West Germany (FRG) and East Germany (GDR), in October 1990; and the all-German election two months later--was the cause of great euphoria and jubilant celebrations. "Since then, however," a knowledgeable German observed recently, "the bridegroom has realized that he married a good-looking but very poor and sick girl." Such a statement is highly instructive, for it provides a telling commentary on existing realities--the immense gap that divides the economies of the western and eastern parts of a united Germany. And by implication, it points to the exceedingly difficult task of welding two very unequal societies into a single nation strong enough to pursue a major global role. In fact, the sharp economic (as well as social) contrasts between the confident groom (FRG) and the willing but anxious bride (GDR), on the eve of their marriage, are by now well documented and require only brief mention here.

Thus, measured in the aggregate, the Gross National Product (GNP) of the former East Germany is estimated at about 10 percent of that in the FRG; per capita GNP figures (in 1989 dollars) are $9,670 for the GDR and $15,250 for the FRG. Labor productivity in the eastern part, at the time of unification, was estimated at about 30 percent of the level in the west, while average gross wages amounted to one third, and net take-home pay to less than half of those in the FRG. As of mid 1990, the FRG had net foreign assets of some $300 billion, in contrast to a net foreign debt (in convertible currencies) accumulated by the GDR. And finally, at the time of monetary unification, the West German economy featured a low inflation rate, a reformed tax system, and the accumulation of substantial liquid reserves for investment by private companies, whereas the GDR was characterized by a
heavily indebted enterprise system, a distorted structure of wages and prices coupled with an interventionist tax and subsidy system, and enormous environmental problems.

Nor have economic conditions in the former GDR improved since the marriage vows were exchanged. On the contrary, they have largely deteriorated—and at an alarming pace. Less than one year after unification, the eastern part of the country can be said to experience deep economic depression. The current unemployment rate is 30 percent; and by some estimates it may reach nearly 50 percent by the end of 1991. Output is expected to fall by at least 40 percent from 1990 and 1991. Hoped-for large scale Western investment has not materialized so far; and investment in the five new Länder in 1991 is anticipated to be less than in 1989. The fate of some 8,000 former East German state enterprises, to be reorganized or liquidated by the Trust Fund (Treuhandanstalt) is still not clear. And, perhaps most troubling, nearly one million East Germans, mostly skilled and well trained, have moved to the western part since November 1989.

It is tempting to compare the present task of bridging the economic gap between the two parts of Germany to the challenges faced by U.S. policy makers in their efforts to rebuild the West German economy, as well as those of other West European countries, after World War II. In fact the notion of a present-day Marshall Plan is often suggested as a means of helping East European countries in general to achieve a rapid transformation from failed economic performance under centralized planning systems to healthy market economies. Yet such comparisons and suggestions are neither meaningful nor particular relevant in the context of present realities. Indeed, the only common denominator underlining the past and present in this connection is the recognized need for substantial
financial resources. And even here, there are significant differences in the order of magnitudes. During the four years of the Marshall Plan, West Germany was the recipient of roughly $1.4 billion in American economic aid, while the cost of German unification to the German government is currently estimated at $600 billion by the year 2000! In any event, it is not differences in the costs of reconstruction (then and now) that render comparisons irrelevant, but rather differences in economic structures, as well as differences between the external context within which European economic reconstruction took place in the late 1940s and early 1950s, and that in which the process of German unification is taking place today.3

This having been said, attention may now turn to the central question before us--namely, what are the economic and monetary implications of German unification? It would be useful to identify at the outset three separate though interrelated spheres within which this question may be addressed. There is, first, Germany itself, consisting at the moment of two radically different economic structures. There is, secondly, a united Germany within Europe--particularly within the European Community (EC). And thirdly, there is Germany as a major actor in the global economy.

Of these three, the one that commands the most attention and concern is the first. And from an economic standpoint, the implications of German unification for Germany itself may be examined by a kind of a cost-benefit analysis. That is to say, one may attempt to calculate—or estimate—the potential economic benefits of unification and compare them to the costs involved. For the former GDR the relevant measures of such benefits would obviously include potential increases in output, resulting from the reorganization and modernization of industrial activities and improved labor productivity; increases in incomes; and a wider choice of consumer goods.
Additional gains may also result from increased specialization and expanded trade, especially with Western countries. But while the general presumption is that in the long run, eastern Germans will be much better off than they would have been without unification, the exact course and the extent of such an eventuality depends on a number of factors.

One very important factor is the amount of capital actually made available for investment in the eastern part of the country. According to some estimates, gross capital investment of $1,071 billion is needed in order to bring eastern Germany's capital/labor ratio to 80 percent of west German level, in the year 2000, which translates into an average annual flow of $107 billion over a ten year period.\(^4\) Whether or not such flows could or would be sustained, is an open question, yet their importance cannot be stressed too strongly. Capital investment is the most crucial ingredient necessary to raise east German labor productivity. And it is the growth of productivity which, in turn, will determine the growth rate of output. Indeed, the various estimates of future growth rates of real Gross Domestic Product (GDP) in the former East Germany, as well as in the united Germany, are all based on specific assumptions about productivity increases in the eastern part--increases that are designed to close, or at least narrow, the productivity gap between western and eastern Germany.

Thus, if one takes as a point of departure the initial gap (i.e., labor productivity in the east being 30 percent of the level in the west), and assumes that productivity in western Germany will grow at about 2 1/2 percent a year between 1990 and 2001, two possible scenarios may be considered.\(^5\) In the first, it is assumed that over this period east German labor productivity will grow at about 11 1/2 percent per year, reaching 80 percent of the west German level in the year 2001. During that period,
output—as measured by eastern real GDP—is estimated to grow on average at about 10 percent per year, and disposable income by an average of 6 percent per year. A second, less optimistic scenario assumes a smaller increase in east German productivity, attaining only 60 percent of the west German level at the end of the period. And under the circumstances, output is estimated to grow at 6-7 percent per year, and disposable income by 3 1/2 percent per year.6

It bears noting that a crucial difference between these two sets of projections lies in their respective assumptions about the amount of investment made in eastern Germany. The first scenario assumes a higher level of investment than does the second—a clear indication of the importance of capital in influencing productivity growth. And it might also be noted that the two scenarios differ in their assumptions concerning the size of the east German labor forces—another important factor influencing output. Although both scenarios anticipate continued migration from east to west, the first assumes smaller net migration flows than does the second, thus leading to a smaller reduction in the east German labor force and, as seen above, to larger increases in east German output. Yet the implications of east-to-west population flows extend beyond the eastern part itself. Such migration, after all, can be expected to increase both aggregate supply and aggregate demand in western Germany. And even if migration adds to total employment in the west while reducing it in the east, the effects on potential output need not necessarily be offsetting. It might be argued, in fact, that since productivity is considerably higher in the west, the east-to-west migration may well result in a net increase of the country’s combined output.
What exactly can be said about the effects of unification on the combined Gross Domestic Product (GDP) of a united Germany? Here an additional factor enters the picture—namely, the ways in which government expenditures on unification are financed, and the resulting impact on the government budget, public debt, and interest rates. Such expenditures can be financed either by borrowing or by raising taxes, or by some combination of the two. Clearly, resort to large-scale government borrowing (bond financing) is bound to increase the budget deficit, raise the level of debt, and exert an upward pressure on both short-term and long-term interest rates. On the other hand, reliance on tax increases (tax financing) has its own drawbacks. In view of the recent tax reform in west Germany, raising direct (income) taxes may prove counterproductive. The alternative—i.e., raising indirect tax rates—may well result in higher prices of goods, and cause inflation jitters. In either case—increased borrowing or raising taxes—interest rates are likely to rise above the levels they would have reached in the absence of increased government expenditures associated with the merger of the two Germanys. Indeed, as will be argued later, larger budget deficits, higher interest rates and higher taxes must be counted among the costs of German unification.

Such costs, moreover, bear directly on the possible effects of unification on the combined output of a united Germany. For, to the extent that interest rate levels and tax rates typically affect the behavior of both producers and consumers, they are bound to influence the aggregate level of economic activities and, hence, GDP. Accordingly, projections of the potential growth of Germany’s combined GDP must be based on certain assumptions about changes in government budget deficits and their impact on the level of interest rates and/or tax rates. Such assumptions, in fact, are
built into various simulations of the German economy over the next ten years.

Thus, taking the second half of 1990 as a baseline, one set of simulations puts Germany's real GDP in the year 2001 at 14.5 percent above the level it would have reached in the absence of unification. This particular projection is based on the assumption that, compared to the baseline, the German government deficit would peak at 4.4 percent of GDP in 1991, and would subsequently decline rapidly to an eventual 0.6 percent of GDP in 2001. At the other extreme---and based on the assumption of considerably larger budget deficit throughout the period---real GDP in 2001 is estimated to be at only 8.1 percent of the baseline.\(^7\) A much more optimistic set of projections, resulting from a different simulation model, yields a combined real GDP, in the year 2000, of between 20.7 and 21.1 percent above the baseline.\(^8\) Whatever their respective analytical merits, all of these estimates can at least serve as rough quantitative indications of the macroeconomic effects of unification on Germany itself. Specifically, they suggest that, in the aggregate, Germany would be economically better off with unification than without it. How much better off depends, of course, on which of these estimates is regarded as a more realistic representation of future development. Which, in turn, depends on the validity of their respective assumptions.

Not to be overlooked are the possible microeconomic effects of unification. Here one might note the likelihood of increased efficiency of firms and industries, due to economies of scale, wider markets and increased competition. Another source of potential microeconomic benefits lies in increased R & D expenditures on new products and technologies, likely to be undertaken in response to a more competitive and unrestricted
market environment. But while such possibilities must be taken into account, it must be openly conceded that industry-specific (or firm-specific) effects of unification are most likely to occur over the long run, and thus cannot be modelled or quantified in a meaningful way. What can be asserted, on the basis of available empirical investigations and intuitive considerations, is that unification is likely to unleash a combination of macro and micro economic changes which, in the long-run, will result in substantial economic benefits to the country as a whole.

So much for expected benefits. On the cost side of the ledger, one must consider costs that have already occurred as well as those that are yet to be faced. At the time of this writing, the most obvious and serious cost, in real terms, has been the actual decline in eastern Germany's output, with industrial production estimated to have fallen by nearly 50 percent since the monetary unification. No less serious, however, is the loss, at least in the short run, of potential output, due to the idling of productive capacity, high unemployment and the continuing migration to the western part. In part, these developments arise from the fact that the financial resources required for the reconstruction and transformation of eastern German economy are still lacking in the east. The west German private sector has not yet responded to the need for rapid and substantial action to help the eastern part, basing its approach instead on normal business consideration. And such an attitude, on the part of west German and other private investors, is further influenced by the lack of clear regulations over property ownership claims in the east, and by the complex and often confusing mechanism governing the reorganization, management and/or liquidation of former East German state enterprises.
Yet to a very large extent, the current economic problems stem directly from certain decisions made back in 1990, in connection with the establishment of the German Economic and Monetary Union. Monetary unification entailed the replacement of the ostmark (M) by the deutsche mark (DM) as the sole legal tender; the introduction into the GDR of a market-based banking system with unrestricted capital flows and freely determined interest rates; and the conversion of East German wages and salaries, pension, other recurrent payments and the first M 4,000 of most GDR citizens' saving accounts at the rate of 1 M = 1 DM. The crucial decision to adopt a 1:1 conversion rate may have been politically expedient but economically very ill advised. For it was quite clear at the time that a 1:1 rate was not a realistic reflection of the true economic value of the ostmark in relation to the DM or other western currencies. Indeed, it can be argued that the very adoption of the 1:1 conversion rate--coupled with negotiated wage settlements on behalf of east German labor, in conjunction with the unification agreement--was bound to render east German production even less competitive on international markets than before, to further encourage westward migration, and to reduce incentives for private investment in the eastern part.

In any event, it is now quite clear that the fiscal costs of unification will be substantially larger than initially envisioned and will thus exert a much heavier burden on Germany's federal budget. To be sure, part of the projected public spending will be for investment in infrastructure and other projects designed to expand eastern Germany's productive capacity. But a very large part currently consists of unemployment compensations and other social welfare payments to east Germans; and to the extent that high unemployment in the eastern part continues, such expenditures are likely to
persist and even grow. In addition, some operations of the the Trust Fund—specifically, the guarantees of bank loans to east German enterprises—entail potential financial liabilities which ultimately may have to be borne by the German government itself. And even the German Unity Fund which was initially seen as a political master stroke on the part of Chancellor Helmut Kohl, is now viewed as inadequate to handle the higher-than-expected costs of unification, and may require additional financial resources.

The likely impact of large-scale expenditures on the federal budget position can be easily surmised. Starting from a generally balanced fiscal position in 1989, the government has witnessed steadily growing budget deficits. And although, according to some estimates, such deficits are projected to decline after peaking in 1991/92, it is not at all certain that this would, in fact, happen. In any event, the increase in government expenditures since monetary unification has already necessitated a large increase in government borrowing and has had a significant effect on interest rates. This upward trend has also been helped along by the central monetary authority, the Bundesbank, which has been raising interest rates in order to keep inflation under control. That this is not merely a short-term reality, is suggested by the fact that available simulations of the German economy anticipate that during the next ten years German interest rates will be higher than they would have been in the absence of unification.⁹

Nor is this all. After he solemnly declared, during the all-German election last December, that the financing of unification costs would not require new taxes, Chancellor Kohl has recently reversed himself. In March, his cabinet approved a 7 1/2 percent surcharge on personal income tax and corporate tax, as well as various increases in sales tax on gasoline, heating oil and natural gas, effective July 1, 1991. And although these
increases were adopted for one year, some government officials have ventured to opine that other goods and services may soon be subject to tax increases, and that VAT rates may also have to be increased.\textsuperscript{10} To be sure, resort to higher and/or new taxes may ease the projected fiscal imbalances. But the impact of tax increases on economic activities cannot be ignored. An increase in income and corporate tax rates serves as a brake on consumers and producers spending, while a VAT rate increase is bound to raise prices and thus contribute to inflationary pressures and inflationary expectations.

Higher interest rates, tax increases and real or perceived inflationary pressures must, therefore, be considered as major costs of German unification. The extent to which these costs will affect the expected economic outcome of unification--i.e., higher levels of \textit{per capita} output, income and consumption in a united Germany--cannot be quantitatively predicted with any degree of certainty. Nor is it possible to quantify, in precise terms, the effect of such costs on Germany's economic positions vis a vis its foreign trading partners. What \textit{can} be suggested, however, is that from an international economic perspective, the unification process is likely to produce, at least in the short-run, a mixture of positive and negative results.

Perhaps the most visible external result of German unification has been--and will likely continue to be--an increase in interest rates in other countries. In large measure this is a reflection of the high degree of international financial integration, whereby developments in one capital market are quickly transmitted to other capital markets. Large government borrowing, to finance unification costs, have caused a tightening of the German capital market, leading to a rise in interest rates there, as well as in
foreign financial markets. Another contributing factor has been the underlying change in the German saving–investment relationship. Prior to unification, West Germany had generated a surplus of savings over its own private and public investment needs; and this excess was largely lent to the rest of the world. To the extent that more German savings will now be channelled into investment at home, the availability of funds in foreign capital markets will be reduced, causing foreign interest rates to rise.

Although the net effect of rising interest rates on economic activities in other countries are equally difficult to measure, two observations may be made. On the one hand, the rise in interest rates may well serve to reduce the level of investment and other interest-sensitive expenditures, thereby slowing economic growth. Indeed, some of Germany’s EC partners, whose own economies are currently experiencing slowdowns, are particularly fearful of such a possibility. On the other hand, the possible negative effects of higher interest rates on economic growth in other countries may be somewhat moderated by expected changes in Germany’s trade-balance position, due to changes in the DM exchange rate vis a vis other currencies. Rising German interest rates have already caused the DM to appreciate significantly on world currency markets, especially against the dollar, since the monetary unification. And, in turn, the appreciation of the DM—coupled with large-scale government borrowing and spending—is expected to reduce Germany’s persistently large trade and current account surpluses. Which, by implication, means an improvement in the trade-balance position of Germany’s major trading partners. Whether or not such an improvement—currently based on short-term or medium-term exchange rate changes—can be sustained over the long run, will largely depend on the extent to which the restructuring of eastern Germany’s economy is properly managed and
successfully accomplished. If, as one observer recently asserted, "unification will ultimately lead to a period of unprecedented growth and prosperity for all of Germany," then the long-run external outlook can be expected to be favorable. This is so because the aggregate-demand effects of an economically prosperous Germany would surely translate into increased imports from all of Germany's trading partners. But if the eastern part proves to be a continuing drag on the country's economic and financial resources, any short-term external benefits may well turn into long-term burdens on Germany itself and its global economic partners.

At this moment, however, it is not the long-run global implications of German unification that are of major concern, but rather its short-term and medium-term effects on Germany's partners in the European Community (EC). There are several dimensions to this concern, not least of which is a nagging ambivalence about the prospect of a Germany which is even stronger economically than it already is today. From an EC perspective, a strong Germany may be seen as both an indispensable ingredient in the process of attaining the goal of European economic and monetary integration, and a force threatening to dominate the EC by asserting economic hegemony over the rest of its member-countries. Whether or not a strong united Germany would or could mold the future shape of the EC, is, at present, a debatable philosophical issue. But on a practical level, German unification does raise several EC-related and European-related issues which cannot be ignored.

One such issue concerns the possibility of additional costs to the EC itself, resulting from the fact that, by virtue of unification, the former GDR has become part of the Community. As an economically backward area, eastern Germany would become eligible to receive various EC payments--
especially agricultural subsidies. According to some estimates, the bill for eastern Germany's entry into the EC may amount to some $2 billion per year, for the next several years; and while the German government has promised to pay as much as 80 percent of this cost, Germany's position as the largest contributor to the EC budget would thereby be eroded. Another issue focuses on the concern that German private investment priorities might change as a result of unification--specifically, that eastern Germany might replace such EC members as Spain, Portugal and Greece, as well as East European countries, as a major investment target. And thirdly, there is a distinct possibility that a united and prosperous Germany will draw an increasing inflow of skilled labor from both Eastern Europe and other geographical areas, at the expense of other countries, both in Europe and elsewhere.

Yet perhaps the most pressing EC-related issue is a concern over the possible impact of German unification on the on-going "EC1992" process, and in particular, the creation of a European Economic and Monetary Union (EMU). When the two EC intergovernmental conferences--one on the economic and monetary union, the other on a possible political union--began in Rome, last December, they were greeted, for the most part, with high expectations for quick results. Now that the painful realities of German unification have set in, several questions arise: Will the economic and fiscal/monetary problems faced by the German government slow down the EC 1992 process? Will the higher-than-expected costs of unification--and their effects on interest rates--require realignments among the European Monetary System (EMS) currencies before a monetary union can be fully established? Will such realignments have positive or negative effects on individual EC countries and on EC's external trade position? Will
adjustments in nominal exchange rates among EMS countries necessarily imply proper real exchange-rate alignments, in order to achieve a workable monetary union?

These and similar questions will continue to dominate the debate over the probable impact of German unification on the course of European integration during the 1990s, as well as on future intra-European and extra-European economic relations. But important as they are, such questions are easier posed than answered. For in the final analysis only time will tell what were the full economic, social and political consequences of German unification.
Notes

1 Meinhard Miegel, quoted in Europe, March 19, p. 17.


3 Post-W.W. II Germany, while emerging from a repressive political regime, was nevertheless characterized by an essentially capitalistic economic system, whereas the present eastern part has lived for forty years under a centrally planned economic structure. Moreover, the late 1940s and most of the 1950s were dominated by the so-called Cold War and the division of Europe, which is not the case today.

4 These are estimates of the Congressional Budget Office (CBO). See p. 74 of the CBO study cited in footnote 2.

5 These scenarios are based on a simulation model used by the International Monetary Fund (IMF) and reported in the IMF study cited in footnote 2.

6 These are average figures. The estimated increases in GDP and disposable income vary from year to year. See IMF study, p. 83 and p. 89.
7See IMF study, p. 100.

8These are the results produced by the simulation model used by the CBO. It might be noted that the CBO simulations are based on the assumption of two extreme alternatives of financing increased government expenditures on unification--i.e., by borrowing alone (bond financing) or by solely raising taxes (tax financing). The higher figure in the text reflects expected GDP under the assumption of tax-financed spending; the lower, on the assumption of bond-financed spending.

9For details, see CBO study, pp. 80-81; and IMF study, p. 100, p. 104, and p. 111.

10Response to author's question, from the German Information Center in New York.


12Ibid., p. 8 and p. 11.