

German Monetary and Economic Unification: Are Financial Markets Asking the Right Questions? *

1. Introduction

After a short period of stock market euphoria following the fall of the Berlin Wall, bond market weakness has led a stock market reversal in February and March, and pessimism over the prospects for German inflation during the process of monetary unification has prevailed in both the financial press and capital markets. If, as is widely believed, stock markets anticipate the future evolution of the real economy, monetary and economic unification of the East and West German economies has caused German economic prospects to deteriorate markedly.

The commitments made during the East German election campaign that the first step towards economic and political unification would involve a monetary union in which East German marks would be converted to Deutsche Mark at a rate of 1:1 seems to have been the primary cause of the increasingly negative assessment of unifi-

* Notes from a Seminar presented at the Wissenschaftszentrum Berlin für Sozialforschung, May 14, 1990. Final revisions completed May 16, 1990. I am indebted to Dr. Doris Cornelsen, Dr. Dieter Hiss, Prof. Dr. Lutz Hoffmann and Prof. Dr. Egon Matzner for discussion clarifying a number of inaccuracies and errors in the initial presentation. I am grateful to Nathaniel Land for providing statistical support.

These notes are based on a presentation first given in February 1990 while I was the Alcoa Visiting Professor at the College of Business Administration of the University of Tennessee, Knoxville. It also draws on the Laws Lecture ("Some Implications of European Economic Integration for the United States Economy") which I presented at that time and which has been partially translated as "Zum Verhältnis von deutscher, westeuropäischer und gesamteuropäischer Integration", in *Die Zukunft der DDR-Wirtschaft*, Reinbek: Rowohlt, 1990.

cation in credit markets. With the financial press evoking images of Milton Friedman's helicopters dropping bundles of Deutsche Mark onto a profligate East German population starved of consumption goods, descending locust-like onto West German shops to ravage supplies and create inflation, bond markets marked down prices of DM fixed interest assets by over 150 basis points from the fall of the Berlin Wall to the East German elections. What had initially been interpreted as the greatest opportunity for growth and expansion presented to the German economy since post-war reconstruction and the ultimate confirmation of the superiority of free market capitalism suddenly started to resemble a devious communist plot to weaken the anti-inflation resolve of the Bundesbank and destroy German prosperity despite the superiority of free market capitalism.

In addition, the public reactions of the Bundesbank to the proposed monetary unification, and its alternative plan proposing a 2:1 conversion rate, appeared to aide and abet the excesses of the financial press and encouraged the negative reactions in bond markets. The objection that the government's proposal for monetary union was absolutely "unrealistic" and would weaken the position of the DM was widely interpreted as representing an official Bundesbank forecast of higher inflation and higher interest rates to combat it.

Now, this domestic disagreement between the Bundesbank and the German Chancellor would have been a problem of only domestic German concern had it not been for the fact that it occurred in a period in which international money and currency markets were producing conditions in which there was increasing pressure on Japan to raise interest rates in defence of an ever-weakening yen, the Federal Reserve was again threatening to raise rates in the face of largely imaginary inflationary pressures in the US economy and nearly stagnant economic growth, and the Bank of England, faced with a deteriorating external position and increasing inflation, was moving to tighten monetary policy. The continued (relative) weakness of the DM within the EMS and reported monthly inflation rates excess of 3% on an annual basis only encouraged speculation that the Bundesbank would be forced to increase rates. Markets were thus quick to interpret the Bundesbank's negative reactions to the proposals for monetary union by anticipating its actions and pushing up long-term interest rates. This is precisely the kind of bond market scenario that in the spring of 1987 led to the subsequent world stock market break.

But, market participants appear to have failed to ask whether there was any reason to believe that monetary union would in fact produce the feared increase in German inflation and thus require substantial tightening by the Bundesbank in order to prevent its occurrence. Further, they seem to have made a superficial interpretation of the main concerns of the Bundesbank, which seem to be more linked to the impact of unification on the survival of the East German industrial and financial system during the *interim* between monetary and political union than the likely inflationary aspect of the spending patterns of East Germans.

2. The "helicopter" and the equation of exchange

The reasoning behind the "helicopter" theory can be easily reconstructed.¹ With estimates of accumulated East German liquid assets of between Ost Mark (OM) 150 and 180 billion,² a 1:1 conversion rate for currency and saving deposits outstanding at the end of 1989 would have increased West German M3 around 14%, more than double the Bundesbank's current target of 4-6% for M3 growth. Applying the Equation of Exchange to the 180 billion expansion in M3 implied by 1:1 conversion and using the 1989 FRG velocity of circulation of around 1.8³ implies an increase of about 14% in nominal GNP. Given that the maximum increase in real output for the current year is expected to be between 4 and 5%, and (optimistically) calculating an additional 4-5% in real resources available for diversion to domestic consumption from the external surplus, this

¹ This is not invention; it was actually employed in the *Economist* of 17 February 1990, p. 85 to explain how monetary unification would stoke inflation by distributing increased money balances without any change in available output.

² This is the range of figures that have appeared in the financial press. Data from DIW Berlin (*Wochenbericht* 26-4-1990) calculated from the 1989 report of the Staatsbank estimate savings deposits at DM 162 billion and currency in circulation at 17 billion. Given that the actual conversion will only concern deposits it is reasonable to suppose that all currency in circulation will be deposited before the conversion day so that the appropriate figure is currency plus deposits which for purposes of calculation may be supposed to be 180 billion.

³ Germany has not been an exception to the variability of velocity in recent years; the ratio of M3 to GNP has fallen from about 2.2 in 1976 to 2 in 1982 to 1.8 in 1989, with reversals of trend in both 1980 and 1984.

produces a minimum expected increase in the rate of inflation of 5-6% in addition to the current rate of 3%. The 1:1 conversion could thus be interpreted to imply an increase in purchasing power roughly equal to three years' expansion of real GNP in a single year and a trebling of the rate of inflation to the region of 10%, enough to scare even the most optimistic bondholder into retreating into the safety of cash or even Italian government debt.

But, such reasoning would appear to be based on two analytical errors. First, it assumes that the output that East Germany will contribute to the German union has no value and that East Germans will only buy West German goods with their new DM.⁴ Second, it assumes that all accumulated East German savings, once converted in DM, will be spent down to the last Mark.⁵

With respect to the first assumption, it is indeed notoriously difficult to evaluate the real output of goods and services of countries using net material product calculations in terms of western style GNP calculations. This is not only a question of value versus quantity evaluations of output quantities and of evaluating quality differences, but also of the exclusion of services unrelated to material production, *i.e.* government services, financial services, personal services and full capital consumption allowances in the net product accounts system. Rough, and probably optimistic, estimates of East German productive potential suggest a figure of 10-12% of West German GDP.⁶ On these figures the output that the GDR would contribute to the union would be only slightly below the increased purchasing power which would be created by a one to one conversion of all outstanding liquid OM assets.

It may be true that East Germans may prefer Western goods, but the argument requires that no one will be willing to do so, which is quite a different matter. In 1987 the GDR exported goods worth \$2.4 billion (between 4 and 5 billion DM) to the industrialised countries excluding the FRG, and exports to the FRG were estimated at

⁴ Again, to avoid charges of exaggeration, the *Economist* of 3 March 1990, pp. 15-6 provides an analysis based on such an argument.

⁵ This is implicit in the calculations of the consumption "overhang" which would be created by the conversion. Again, see the *Economist*, 3 March 1990.

⁶ Estimates of per capital GDP for East Germany range from a low of \$4,000 to a high of \$13,000. With a population of around 16.7 million this produces figures of \$66.8 billion to 217.1 billion. \$9,000 is considered to be a fair estimate and yields around \$150 billion or about 265 billion DM which is roughly 12% of FRG GDP.

around \$7 billion. This suggests that even if the optimistic estimates are not accepted, there is no justification for placing a zero value on GDR production available to increase real output. A pessimistic, but more realistic, estimate might be around 5-6% of FRG production.

With respect to the second assumption, all current plans for monetary unification include as basic prerequisites both the removal of price subsidies for consumption goods and the eventual privatisation of all East German state property. Thus, while the conversion at 1:1 would mean an increase in East German residents' purchasing power over West German goods, there will be a concomitant decrease in purchasing power over East German goods. This will lead to substitution for some goods, but for some domestically produced food other basic goods and housing and rents, this will be difficult if not impossible. These goods, which are of necessity produced in the East, even though they will become absolutely more costly they will remain relatively cheaper than Western goods. This increase in the price level of East German goods should increase the transactions demand for money and decrease the potential increase in expenditure over West German goods.

It is also important to remember that the hoard of locusts who descended on West Berlin during the temporary opening of the border during the Christmas holiday period had no assurance that they would ever be able to repeat the experience. Much like travellers going to an exotic country - if you don't buy it when you're there you may never get the chance again - they bought as if there would be no tomorrow. But the whole purpose of unification is to assure the East German population that they will have a tomorrow in which to purchase what they cannot afford today and that the goods will be locally available. If monetary union can create this assurance it is extremely likely that East Germans will treat DM assets in exactly the same way that foreigners have treated them since 1960, as extremely good long-term stores of value and choose to hold them, rather than spend them in a one time splurge which reduces their net wealth position to zero.

Given that privatisation should also apply to the housing stock, there would now also seem to be long-term incentives to save which did not exist in the past. Whereas East Germany had a large consumption overhang because of the absence of goods of acceptable quality, this surplus may now be converted into a large household savings surplus built up in order to acquire private property and

consumer durables which were not previously available. In addition, with the opening of the financial system, new financial assets paying real rates of return will be available for the placement of accumulated savings. All this should also increase the demand to hold financial assets and decrease the propensity to consume.

All of these arguments suggest that there are a number of reasons – rising prices of East German necessities, the possibility of purchasing and owning housing, positive real rates of return to saving, etc. – which lead to the conclusion that there might not be an enormous increase in expenditures on West German goods from the accumulated East German savings deposits, even if they should all be converted at unity. Indeed, conversion at unity might encourage the increase in the propensity to save which is likely to result from the changes in prices and property relations associated with unification. If in addition there is a generally increasing probability of unemployment, it seems unlikely, in the face of uncertainty over future incomes and increasing certainty over the stability of the value of savings, that this should lead to a massive destruction of household savings via a spending spree.

Now that the official treaty has been announced rough estimates can be made of the amount of the new DM which might be created in exchange for OM. Taking an average of 4,000 OM per man, woman and child (an overestimate given that the age distribution of the population appears to be skewed towards the elderly over 60 who have a 6,000 conversion privilege relative to the 2,000 for children under 15) this yields around DM 66 billion. The remaining 114 billion will be converted at 2:1, yielding 57 billion, or a total of DM 123 billion which is less than half the optimistic estimate of a 265 billion East German addition to output, and roughly equal to the pessimistic estimate.

3. The impact of increased spending

Thus, as far as the conversion of liquid financial assets is concerned, the expansion in the DM money supply implied by the proposed conversion rates should be roughly equal to the GDR contribution to overall GNP. But even if one were to concede the

premises of the helicopter argument and the conversion of OM to DM should bring about a substantial increase in the propensity to consume, it is still not clear that this would lead to inflationary conditions either in the FRG or the new combined German confederated union. If one concedes that some increased expenditure will take place, the question then becomes in what types of goods the increased expenditures will be directed, and in particular which types of goods not previously available in the GDR will be purchased. It seems clear that this will not be food, lodging and other necessary goods, which will presumably still remain cheaper as subsidies are gradually removed and whose increase in price will depend on domestic wage and production conditions. The most likely area of increased expenditure should be in those goods which epitomise western "consumer society", *i.e.* small household appliances and labour-saving light consumer durables, electronics, and then automobiles. Outputs of these types of goods in the FRG are of extremely high quality and are generally positioned at the upper end of the price range where substantial price inelasticity of demand prevails. The newly enriched East Germans are unlikely to be purchasers of Miele clothes dryers, or Braun electronics goods, and are likely to have a high price elasticity of demand. More likely they will purchase the cheapest, bottom of the line goods, *i.e.* the cheapest range of these type goods which are produced primarily by French, Italian, Spanish and East Asian firms. The increased expenditures are then most likely to be directed to non-German imports, rather than to higher priced German suppliers.

There is no obvious reason why an increase in demand for these types of goods, spread across a number of different nations and highly competitive producers should cause their import prices to rise; indeed there is even less reason given the short-term stability, and long-term tendency for nominal appreciation, of the DM with respect to these countries' currencies.⁷ Indeed, overall West German import prices have been falling steadily in the recent past. Thus, on the side of

⁷ It is also highly likely that given the current structure of East German production and on the presumption that wage rates do not rise rapidly, that these are also precisely the areas in which the East will start its industrial production for they do not require either high technology or large capital investments. One might thus expect that in about five years Germany will be a strong competitor in precisely those areas where the Mediterranean basin countries such as Spain, Italy and France are currently strong. In this sense the East may fill a "gap" in the German export basket which will eventually require a substantial currency realignment between the DM and the southern tier.

prices there is little reason to suggest that the conversion to DM of East German liquid assets, even if they are fully spent, should bring about any direct pressure towards a rise in the German domestic price level. Again, this is not to argue that East German prices will not rise – as subsidies are withdrawn they certainly will; but this process of price adjustment will have nothing to do with monetary unification per se, nor with the rate at which conversion takes place, or the amount of accumulated assets which are turned to consumption. Such price adjustments would occur, perhaps not quite so rapidly, even in the absence of unification.

On the other hand, there should be an impact on the German trade surplus, which should decline in precisely those countries where it has been increasing rapidly since 1985 (see Table 1). To the extent that this produces improvement in the overall Italian and French commercial accounts it should reduce the need for these countries to maintain high interest rates in order to attract capital inflows to keep their currencies stable relative to the DM within the EMS. This reduction in interest rates should be expected to take pressure off the Bundesbank to raise interest rates and the DM should then strengthen against these currencies within the European Monetary System exchange rate mechanism. This strengthening would, of course, reduce import prices from these countries, further reinforcing the positive benefits of the expenditure created by the conversion of OM for DM.

TABLE 1

SELECTED FRG TRADE BALANCES
(billions DM)

Country	1985	1986	1987	1988	1989	Change
UK	8.8	14.8	17.2	22.4	24.7	15.9
France	14.7	15.2	16.1	18.2	24.0	9.3
Italy	4.6	4.8	6.9	11.4	14.6	10.0
EEC	31.6	51.4	62.3	80.8	94.2	62.6
USA	23.2	28.3	24.3	16.6	8.4	-14.8
Japan	-12.8	-15.3	-14.7	-15.3	-16.9	-4.1
Total	73.4	112.6	117.7	128	135	61.6

This double benefit from an increase in imports suggests that financial markets have been looking at the impact of monetary union from the wrong perspective – the impact of union on domestic

monetary creation, inflation and the rise in interest rates to combat it, when the more important aspect involves the impact on international trade imbalances and on interest rate patterns, differentials and international investment capital flows. If it is true that interest rates are generally too high, and the DM too weak, because countries such as Italy and France with higher structural inflation and growth rates require higher interest rates in order to support their currencies, then a reduction in trade imbalances should allow these countries to reduce rates. It will also be beneficial if it reverses the process by which currency overvaluation due to too high interest rates produces declining international competitiveness, making high interest rates relative to the DM even more necessary in order to attract capital inflows to offset declining trade balances.⁸ Reducing these countries' need for capital inflows will allow them to reduce interest rates, which should have the effect of increasing capital flows into Germany, strengthening the DM and reducing import prices further. Looked at in a European context, an increase in demand for imported consumption goods in Germany looks just what is needed to strengthen the DM and to reduce, not increase, domestic inflation in Germany.

4. Other problems related to unification

There are two other aspects of the supposed impact of conversion on the rate of inflation which bear discussion. The first is the question of just exactly how the rate of inflation should be calculated during the process of unification. Clearly, a new index will have to be constructed, either one for each part of the unified economy, or one single index: it is not clear what either might mean with respect to

⁸ For 1985 (the most recent date for which OECD Series C trade figures were available to us) over 12% of German exports in both SITC categories 6 and 7 (manufactured goods and machinery) went to France, yielding surpluses of \$1 billion and \$4.5 billion respectively. For Italy the figures are 7.3% and 6.5% with a deficit of \$75 billion for SITC 6 and a surplus of \$2.4 billion for SITC 7. By comparison, for the US the percentages were 7.2% and 14.5% and the balances \$1.7 billion and \$7.5 billion. As can be seen from Table 1, since 1985 most of the overall surplus with the US has been transferred to the EEC so the figures for France and Italy have probably roughly doubled.

the existing measures of prices. Inclusion of East German prices in a unified index should initially have a downward influence. This impact should decline as subsidies are eliminated, which means that such an index would initially show a decline in the inflation rate and then overstate actual inflation as subsidies are removed. It is clear that there is no interest rate policy which could offset such changes in prices, nor would it be desirable to do so. However, there will also be price declines in the East as imported goods, which were sold at artificially high prices, and other domestic goods which benefitted from protection are sold in competitive markets.

On the other hand, it must be supposed that the Bundesbank will have control of monetary conditions in the entire union after conversion, and it is difficult to see how it might use either a dual index or a single index in any meaningful way to gauge the impact of its monetary policy during the transition. The same type of argument applies to the meaning of changes in the monetary aggregates, which will become extremely difficult to interpret during the process of unification.

The second point concerns the recent inflation experience in the FRG. The inflation rate, after falling to an average around zero for the period, 1986-1987, has recently risen to around 3%, a figure partially inflated as a result of some changes in indirect taxation. In such conditions, it is argued, even a small increase in inflation resulting from unification would be unacceptable and would have to be countered by tighter monetary policy. But conditions look rather different if the various components of the cost of living index are considered. The overall index in 1988 was only 101.4 relative to the base year of 1985=100, and rose to 104.2 in 1989. Of the four major sub-categories of prices, the index for 1989 for food was 101.3 (up 2.2% from 1988), for other consumables 99.9 (up 3% from 1988), for services and repairs 109.9 (up over 5% from 1988) and for rents (including garage rents) 108.7 (up nearly 10% from 1988). From this disaggregation of the index it is clear that the greatest part of German inflation since 1985, and in particular in the big jump in 1989, has come from increases in the prices of services and housing. Neither of these categories are likely to be negatively influenced by an increase in East German purchasing power resulting from monetary unification. Indeed, if unification reduces the flow of immigrants to the West it should reduce pressure on house rents, and the flow of immigrant workers which have already arrived during 1989 should

ease the pressure on costs of labour in the service sectors (highly skilled and professionally qualified immigrant labour represents the only possible pressure of foreign competition that can be applied to the labour intensive service sector).

On the other hand, import prices which had fallen to 80.8 in 1988 (again with 1985=100) were up by over 4% in 1989 to 84.4, but this was primarily due to increases in oil prices, which have now been reversed, and the weakness of the DM relative to the dollar and the rise in primary product prices, both of which have also been reversed in the last half of 1989. There seems to be no reason why a rise in demand coming from East Germany should have a negative impact on West German inflation (nor is there any reason to believe that either higher interest rates or a stronger Mark will reduce services prices, naturally protected from foreign competition and isolated from exchange rate changes).

5. Unification and the demand for capital goods

Of course, there are other reasons which have been presented to explain the necessity of higher interest rates. The most common is that since the reconstruction of East German industry will require capital goods from West Germany, and production in these sectors is already near full capacity utilization (near 90% of normal for the manufacturing sector as a whole), any increase in demand will cause increased pressure on prices. Aside from the fact that capital goods prices have no direct effect on the cost of living and thus do not have a direct impact on wage rates, it is unclear that even this argument is relevant. It is true that capacity utilization is high in capital goods industries, but these are the high export sectors of the German economy and these exports could be redirected to East Germany without any necessary impact on prices.

But it is unclear that the capital goods producing sectors will be the first to feel the demand impact of East German reconstruction. If East German industry is to be reconstructed and if there is to be a substantial investment by German firms in the East, the first priority will be to replace social overhead capital and infrastructure such as roads, railways, telephone and satellite communications and so forth,

all of which are essential preconditions for the profitable production and distribution of industrial goods for the European market. None of these types of investments are likely to require substantial additional capital goods and most of them are relatively labour intensive investments.

Only after these basic facilities are in place will the second impact of expansion of investment in plant and equipment be possible. But here again, plant must be constructed before equipment can be installed. It must also be assumed that the housing stock must be improved and enlarged. Thus on both counts it is likely that it will be the construction industry which will feel the initial increase in demand over the coming two years. There appears to be excess capacity in construction, and it is likely that there will be a great deal of excess labour in the East. With November equipment utilization in the construction industry proper showing 64.4 percent of normal this increase in construction activity is unlikely to cause substantial price pressures, and with excess labour it is unlikely to cause pressure on wages. Construction is the classic case of domestic activity with small import content, so that it is also likely to leave the commercial balance largely unaffected. All this suggests that capital goods producers should have some leeway to adjust capacity to meet the needs of reconstruction, either by redirecting exports or by expanding domestic capacity, as well as time to train the required labour force. Again, in the event of redirecting exports to internal uses there is the beneficial effect on payments imbalances for Germany has large surpluses in these areas with both France and Italy so that exports will be reduced and/or capital will be redirected to domestic investment, both producing the same potentially positive influence on the exchange rate suggested by the impact of increased imports of consumption goods.

6. Unification and the demand for savings

The most sophisticated argument that has been made in support of increased interest rates has nothing to do with the inflationary impact of the conversion rate of OM, but argues that the financial needs of reconstruction will put such a burden on the given supply of

world savings that real interest rates have to rise to attract the necessary capital. East Germany will thus enter the increasingly intense world competition with the US government, the LDCs, the Italian government and other East European countries for the decreasing quantity of private savings provided by German and Japanese families. The world shortage of savings relative to demand for capital will drive up interest rates just as a shortage of shoes would drive up the price of shoes. Aside from the dubious theoretical basis of this argument, in the case of East Germany this will be an internal problem for a unified Germany. The German capital account balance is now in the range of 110 to 120 billion marks (nearly 50% of the optimistic estimates of East German GDP), while the current account is nearly DM 100 billion or around 5% of GDP. The current government deficit is around 1%, leaving a net savings surplus of around 4% of GDP. Half of this surplus would give the GDR a 25% share of investment in GDP without taking into account any internally generated savings. Taking an estimate of DM 150,000 as the capital required to re-equip an East German labourer, this means that about 350,000 workers per year can be re-equipped using only half the available saving surplus. Using the entire surplus the entire labour force could be using new equipment within ten years if it could be supplied that quickly.

This also gives some insight into the likely unemployment problems. There certainly will be substantial displacement of workers, but the early expansion in the construction industry should provide an expansion in the demand for labour to cushion this. Even accepting the current worst estimates of a 15% unemployment rate due to displacement of uncompetitive industry, this means 1,350,000 workers, a number which could be reabsorbed in less than three years.

Thus while it is true that reconstruction will require capital, it is by no means evident that higher real interest rates will be required to attract it. Internal sources should be more than adequate to satisfy even the most rapid recovery. In addition, it must not be forgotten that Germany should be eligible to draw on EEC regional development funds and CAP agricultural price supports, all of which will increase capital available for restructuring.

On the other hand, there will be other financial burdens, such as responsibility for maintenance of pensions (which in the GDR are roughly a third of FRG levels), unemployment benefits and other

social expenditures which have been guaranteed conversion at par. But, again, these cannot be assessed against a zero contribution of the East German economy, nor should the contribution of approximately a 1% increase in the West German growth rate be overlooked; this amounts to the tax yield on an extra DM 20 billion in 1990.

While the supply of capital does not seem to be the really binding constraint, insuring adequate incentives to investment in East Germany will be crucial. In addition to the essential social overhead investments already mentioned, this is a question of contract law and property rights and expected profitability.⁹ This concerns another part of the unification treaty which has been postponed to a later date when a formal political unification treaty is agreed. This is perhaps the most damaging part of the existing plan for monetary unification, for it places substantial legal impediments in the way of the required flow of investment to the East. This separation of political and monetary unification has other disturbing implications for the way monetary unification is to take place which will be dealt with more fully below.

7. Conversion of wages and debts

Another aspect of the problem of investment incentives concerns the likely behaviour of wages. When Chancellor Kohl announced the final agreement on monetary unification, it was interpreted as a complete victory for his earlier announced position of one to one conversion. But, on closer inspection, complete one to one conversion is applied only to wages and salaries, pensions and scholarships. The economic implications of setting a conversion rate for wages is not clear (although it clearly was required for legal purposes), since conversion is only of relevance in relation to liquid mon-

⁹ It is perhaps necessary to make a distinction between finance and industry. Both will require the social overhead investments, but the financial system is more dependent on the communications links, and less on the behaviour of wages. Given the rapidity with which German banks have set up branch offices in the East, even before the legal provisions under which this might be done have been settled suggests that the first unification will be in terms of the financial sector. The recent agreement of Deutsche and Dresdner banks with Kredit bank supports this. The real problems will be in attracting industrial investors to the East, *de facto* the banking system is already unified.

etary assets which have fixed prices in Ost Mark. Conversion of the unit of account has no impact on the value of other assets or services for their prices will be determined by local market and labour union conditions. Wages may be converted at any rate; as long as they are subject to negotiation and bargaining in competitive labour markets the conversion rate is meaningless for wage levels will be adjusted to market conditions. This means that one of the most important aspects, perhaps the most important aspect, of generating the appropriate incentives to investment in the East will be the trade union structure which is introduced and the bargaining goals for wages and conditions that will be adopted by unions. It is clear that any attempt at a common policy or equality of wages and conditions between East and West would be fatal to the success of unification.

If wages were to remain "at parity", *i.e.* at their current levels in OM converted to DM, then average wages after conversion to DM at 1:1 would be between a third and a half of equivalent West German levels. Given that the most pessimistic estimates place GDR labour productivity at around 50% of that in the FRG, this means that wage differentials will more than offset productivity differences between the two countries.¹⁰ Indeed, it has been estimated that GDR wages of 60% of FRG levels would retain sufficient competitiveness, but that this would still be about 10% short of the levels required to prevent continued emigration of labour. This suggests that some sort of extra-market wage supplementation may be required in terms of tax reductions or transfers to increase East German labour incomes in the short term. In any event, it does not seem likely that East German workers are likely to be "priced out of jobs"¹¹ or that wage costs should be an impediment to attracting adequate investment.

The same arguments concerning investment incentives should be applied to the problems of the outstanding indebtedness of East German firms. In the unification treaty the debts of East German firms are converted at 2:1. While this will lighten the DM costs of

¹⁰ DIW (Berlin) gives estimates for 1988 for gross monthly wages in the FRG of 3,855 and 1,190 for the GDR (2,070 and 935 net). An earlier study (1982) concluded that the real purchasing power of the wage in the GDR was 53% of that in the FRG. WIIW Vienna reports industrial wages in the GDR for 1987 of 1,253 with the highest wages paid in transportation of 1,378.

¹¹ When the *Economist* (17 March, 1990, p. 17) finally stopped their helicopter terrorism of the financial markets they substituted it with a similar argument concerning East German labour being "priced out of jobs" because they would be "overpaid at Ostmark 1 equals D-mark 1".

reconstruction and make firms more attractive acquisitions, it seems clear that most firms will be hard pressed to meet their interest charges and that the market value of the debts relative to book value is not far different from that of the lesser developed countries, *i.e.* about 20% of par value.

Further, the economic justification for converting the debts at any rate seems questionable. For every debt there is a creditor, and in this case it is not very clear who the creditors are who will receive the DM interest payments on the firms' newly converted DM debt. In the case of state enterprises this was the East German State; if the creditor disappears so should the debt. In the present case the creditor becomes the enlarged Germany and debt forgiveness would seem a reasonable contribution to the unification process. But, this would create difficulties for the GDR never ran an official government deficit, so the counterpart financing for the firms was the increase in households' unspendable OM savings deposits. Thus, if the debts are to be eliminated, so should the savings deposits. If the savings deposits are to be validated and converted into DM, this can only be done by increasing government indebtedness or increasing taxes.

8. The divergence of opinion between the government and the Bundesbank

The crux of the difference of opinion separating the Kohl government and the Bundesbank would appear to be linked to the divergence between the conversion rate for firms' debts required to keep the East German banking system solvent and the conversion rate for households' deposits required to stem the flow of labour from East to West. It is clear that if the firms' debts were to be forgiven, while households' savings deposits were converted at 1:1 this would deplete the assets of East German banks while leaving their liabilities intact; the FRG government would have to provide assets in the form of DM government debt of the same value to provide East German banks with the assets to replace the loans to firms in order to balance their liabilities to families. It would thus appear that the Government had as its main concern the rate of conversion of households' assets which would stop the flow of immigrants and create sufficient confi-

dence in improvement in future economic conditions to keep GDR labour and production in place, while the Bundesbank was more concerned by the rate of conversion of firms' liabilities which would allow them to be able to meet their interest obligations after they were converted to DM. On the basis of the 50% productivity differential between West and East Germany, and given the one to one conversion of wages which, as seen above, places wages at less than half West German levels, it must have seemed reasonable to suppose that East German firms might be able to meet half of their debt obligations. This suggests a 2:1 conversion rate for firms' debt.¹²

This reasoning, however, creates a second problem. Since political unification will not accompany monetary unification, it will be the East German banks (entities of a sovereign foreign State) which will have responsibility for emitting DM. The stability of liabilities expressed in DM then depends on the performance of foreign banks over which the Bundesbank has only formal control. If the East German banks are to meet normal free market accounting practices and to remain in existence without defaulting until political unification and absorption into the West German banking system, this means that if their assets have been written down by one half and they have no equity, then their liabilities, the households' saving deposits should also be written down by one half. Thus the explanation of the Bundesbank's insistence on a 2:1 conversion rate for savings deposits: if assets are converted at 2:1 then so must liabilities.¹³

In this light the actual plan is possibly the worst of all possible solutions for it converts assets and liabilities at different rates. It will thus be necessary to provide the banks with compensating asset balances for the difference.¹⁴ It is clear that many of these problems could have been avoided or resolved in a more expeditious fashion

¹² On the other hand, there is the question of the external debt, which has been estimated at DM 40 billion. Against this the government holds approximately DM 20 billion of external credits. The figure of net foreign debt from the 1989 annual report of the Staatsbank is 23 billion. The yield of the sale of government assets through privatisation might be set so as to eliminate this foreign debt.

¹³ In the absence of a decision to increase taxes to cover the difference between the conversion rate on firm debt and on household savings deposits, it follows that a lower conversion rate requires a smaller increase in West German government debt. In proposing a lower conversion rate the Bundesbank was thus also implicitly proposing a smaller increase in deficit financing for the unification plan.

¹⁴ The conversion plan of 1948 also made use of "Ausgleichsforderungen" to bring banks' accounts into balance after the writing down of their existing credits. The present

had monetary and political union been simultaneous: thus the Bundesbank's insistence on delaying monetary and economic union. However, given the cross-border flows registered at the beginning of the year it is clear that the Government had little choice but to move as rapidly as possible to monetary unification. To this end the May elections were brought forward to March. Indeed, given the disruptions which are currently being caused by the delay until July for the introduction of monetary union there is little to support arguments for further delay and much to suggest that the total cost to the FRG of unification will be lower the more rapid is the political unification process.¹⁵

This also suggests that the capital markets have misinterpreted the stance of the Bundesbank concerning the risks of the Government's approach to unification. It is not the fear of inflation following from a 1:1 conversion rates which has motivated its opposition, but rather the concern to minimise the debt financing of unification and the technical problems concerned with assuring the solvency of East German firms and banks when monetary unification occurs in the absence of political unification. The arguments presented earlier suggest that it is not the increase in deficit spending which is the most pressing danger, but rather the collapse of the economy as it awaits clear decisions concerning political unification which will include the resolution of the problem of property rights.

case is perhaps even more difficult for the East German banks will have to be insured against any default by East German firms until the political treaty is signed and full integration of the banking system takes place. In the absence of recapitalisation this means granting additional equalisation claims against any failure to meet interest and principal payment by firms. A special agency is to be set up by the government for this purpose, funded by government debt issue. It appears that the claims will be issued directly to the firms to supplement their income earning assets and enable them to remain solvent.

¹⁵ The East German economy has virtually been put on hold until the conversion day at the beginning of July due to the complete uncertainty over conditions likely to prevail thereafter. East German television shows alarming pictures of crops unharvested in the fields and goods building up in warehouses due to the almost complete breakdown of the internal distribution system which is attempting to integrate Western suppliers and the absence of clear property rights which would allow the exploitation of external markets.

9. Conclusions

In summary, it does not appear that any of the widely feared inflationary consequences of monetary unification are likely to result from the announced unification plan. The conversion of the existing stock of savings, even if completely financed by the FRG and fully used to increase the propensity to consume, should not lead to any appreciable impact on prices, the increase in the demand for capital should not put undue pressure on available capital resources, nor is it likely that East German labour will price itself out of the market, nor that widespread unemployment should result. If anything the greatest risk is that the agreement is not sufficiently attractive to stem the flow of immigrants from East to West and produces the collapse of those parts of the East German economy which might have made a contribution to national income under free market conditions.

On the other hand, if looked at in terms of the ability of the Bundesbank to defend the integrity of the DM, then the plan will be more beneficial the more it leads to reductions in trade and payments imbalances within the EEC for it is this, not changes in consumer demand or wages or prices, which will allow interest rates in the rest of the EEC to fall and capital flows into the unified Germany allow the DM to strengthen as a consequence. This is a result which can only provide positive benefits to the overall process of EEC integration, for it will lessen the costs of economic cooperation to the rest of the EEC. However, the longer political unification is delayed the more costly and the more difficult will be the successful integration of the two economies.

Bologna

JAN KREGEL