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PRIVATIZATION AND DEINDUSTRIALIZATION IN EAST GERMANY

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ABSTRACT

Privatization and Deindustrialization in East Germany*

The transition in East Germany has been characterized by an extremely rapid privatization of state-owned enterprises and by an equally rapid process of deindustrialization. The great majority of East German state-owned enterprises (SOEs) have been privatized and are now genuine capitalist firms with an owner with the incentive and the power to change management behaviour. Meanwhile East Germany has been deindustrialized with employment in mining and manufacturing falling to one-quarter of its pre-unification level. This paper argues that the government imposed an inconsistent policy towards employment on the privatization agency, the Treuhand. Although required to take account of the shadow price of labour in the privatization negotiations (where employment subsidies were offered to prospective purchasers), the Treuhand engaged in large-scale labour shedding prior to privatization (using the market wage). Although costly from the perspective of the economy as a whole, the Treuhand had little choice given its mandate to privatize rapidly. Finding buyers for Treuhand enterprises has required considerable restructuring including labour shedding. It is argued that the single-minded focus on the issue of corporate governance and the matching of assets to management capabilities through the policy of selling to 'competent outsiders' diverted attention from the possibility that such a policy would not guarantee the retention of a minimal core of industrial activity. Late in the day, the Treuhand recognized that greater use had to be made of economies of scale in management and control to achieve the forward-looking restructuring of its remaining portfolio. It was necessary to create new institutions.

JEL classification: G30, L33
Keywords: East Germany, privatization, deindustrialization, Treuhandanstalt

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NON-TECHNICAL SUMMARY

This paper takes as its starting point two facts about changes in the enterprise sector in East Germany since reunification. The first is that the privatization of large state-owned enterprises (SOEs) has taken place extremely rapidly, and the second is that there has been a dramatic loss of industrial employment in the East German economy. Both of these changes mark East Germany out from its neighbours in Eastern Europe. A major objective of the paper is to explore the connection between these two phenomena.

Between German Economic and Monetary Union in July 1990 and mid-1993, the Treuhand had disposed of nearly 6,000 enterprises and another 6,000 parts of enterprises from its initial portfolio of 8,500 SOEs. The great majority of these privatized enterprises are genuine capitalist firms in the sense that there is an owner with the incentive and the power to change the behaviour of management and raise the efficiency of the enterprise.

In terms of employment, the term deindustrialization seems appropriate since employment in manufacturing and mining has fallen from 3 million to 0.75 million (from mid-1990 to mid-1993), taking the share of employment in manufacturing in East Germany to half the share in West Germany.

The paper argues that the method chosen by the Treuhand to achieve rapid privatization entailed sharp cuts in employment. The basic method used by the Treuhand was to sell enterprises to 'competent outsiders' – to Western companies, families or individual entrepreneurs. The objective was to ensure the matching of assets to management capabilities and the establishment of effective corporate governance. The Treuhand began the task of privatization assuming that reliance on this method would enable it to fulfil its mandate. In order to create units which were saleable to Western (and particularly West German) investors, the Treuhand found it necessary to engage in considerable amounts of enterprise restructuring. This involved breaking giant combines into smaller units, identifying core business activities, hiving off non-business related activities, closing unviable units, restructuring balance sheets to deal with old debts incurred by the SOE, and labour-shedding. The bulk of the loss of industrial jobs has been due to the actions of the Treuhand – not the new private owners.

Two separate motives for the cuts in employment made by the Treuhand are identified: (i) the creation of saleable units (where saleable is defined by the basic privatization method) and (ii) the control of the Treuhand's own deficit. While an explicit employment subsidy was used in connection with the first motive, none was used when jobs were cut for the second reason. The Treuhand's mandate of rapid privatization, its single-minded focus on the basic method of sales to Westerners and the inconsistent application of employment subsidies (imposed by the government) combined to produce the dramatic run-down of industrial employment.

Since the terms of German reunification and in particular the agreements to bring wages in East Germany into line with those in West Germany within a few years rendered unprofitable the great majority of enterprises, it was clear that the Treuhand would have to offer subsidies in order to sell enterprises. The Treuhand was required by the government to take into account the employment, regional and industrial consequences of its privatization decisions. It did this by offering a discount on the sales price of enterprises according to the number of jobs guaranteed which varied with local unemployment conditions, regional external effects and the like. In spite of the employment subsidies, steep cuts in employment were necessary to achieve sales – just as has been typical in foreign direct investment deals in East European economies with wages a fraction of those in East Germany.

The second reason for labour-shedding was to control Treuhand expenditure. From the Treuhand's perspective, it was prudent to lay-off workers who would go into retraining, job creation schemes or even unemployment at the expense of another Federal authority.

This analysis suggests that a wage subsidy would have had little impact on the pace of privatization (given the subsidies already on offer). Combined with the Treuhand's basic strategy of bringing in effective management and corporate control and undertaking financial restructuring and the break-up of enterprises, a wage subsidy would have enabled a broader-based process of enterprise transformation to take place. The population of 'fast-track' enterprises with Western owners and rapid movement to West German levels of productivity would probably be little different from that achieved by current policies. But employment in the remainder of enterprises would be much higher than at present.

This broader-based process of transformation would have required not only the introduction by the government of a wage subsidy, however, but also the recognition by the Treuhand that the basic method of privatization – sales to Westerners – could not be relied on to produce sufficient sales of enterprises and thus guarantees of investment and jobs, especially in industry.

The paper identifies the reasons for the over-optimism on the part of the Treuhand as to the involvement of Western companies in East Germany. Belatedly, the Treuhand realized that a shortage of management capabilities was possible in the East German transition. It recognized that greater use would have to be made of economies of scale in management and control through the creation of new institutional structures to achieve the strategic restructuring of potentially viable enterprises for which Western owners could not be found. This led to the development of the Management KG which combines high-powered incentives for a Western manager to turn-around a set of enterprises still owned by the Treuhand.

Theoretical justification for the common ownership of groups of enterprises both by the state and by private institutions during transition comes from the literature on vertical integration. It arises primarily from the fact that many enterprises in the transitional economies consist of rather arbitrary collections of assets and are in need of extensive restructuring. The emerging institutional structures in East Germany involving private, public and mixed forms of ownership can be interpreted in this framework.

1. Introduction

This paper starts from two facts about changes in the enterprise sector in East Germany. The first is that privatization of state owned enterprises - including large ones - has taken place extremely rapidly and the second is that an equally dramatic process of deindustrialization has occurred. Both of these changes mark East Germany out from its neighbours in Eastern Europe. In brief, between mid 1990 when German Economic and Monetary Union occurred and mid-1993, nearly 6,000 enterprises and another 6,000 parts of enterprises had been sold. The initial portfolio of the privatization agency, the Treuhandanstalt, was 8,500 state owned enterprises. Moreover, the great majority of privatized East German enterprises are genuine capitalist firms in the sense that there is an owner with the incentive and the power to exert the control necessary to change the behaviour of management and raise the efficiency of the enterprise. Of course, this is no guarantee of survival as the well-publicized failures of East German privatized firms testify.

The Treuhand (THA) began with 4.1 million employees (nearly half of total employment in the GDR); by the end of 1993 there may be as few as 1.2 million people employed in THA and former THA firms (Kühl 1993 p.12). The term deindustrialization is particularly appropriate since employment in manufacturing and mining has fallen from 3 million to 0.75 million and the share of employment in manufacturing has fallen to one half the share in West Germany.

The paper begins in section 2 by setting out the context within which the transformation of the state-owned enterprise sector in East Germany has taken place. An understanding of this context is helpful in identifying aspects of privatization which are unique to East Germany. In particular, the consequences of reunification for East German competitiveness lie behind much of the job losses. It is not the new private owners of former Treuhand enterprises which have engaged in large-scale labour-shedding but rather the Treuhand. Somewhat paradoxically, the Treuhand has also provided employment subsidies to the purchasers of its enterprises. In negotiating the terms of the sale of an enterprise, it was required to take account of the opportunity cost of labour. A discount on the sales price of firms was provided according to the number of jobs guaranteed by the purchaser and the amount of investment guaranteed. The employment subsidy varied according to the availability of alternative employment opportunities in the area and the regional importance of the enterprise (e.g. for local suppliers). The scale of investment guaranteed can be interpreted as an indicator of the permanence of the jobs provided. In section 3, the Treuhand's record in privatizing, restructuring and closing enterprises is set out. The characteristics of the new owners of East German business are identified. The problem of the manufacturing sector stands out very clearly in an examination of the stock of enterprises remaining unsold.

In section 4, the focus turns to the Treuhand's primary method of privatization: the sale of its enterprises to 'competent outsiders'. This is a 'top-down' method of privatization through which the Treuhand has sought to find buyers who have a knowledge of the industry in which the core activity of the enterprise is based and the access to finance required to make the firm competitive. We explore the reasons why this strategy was chosen and what it has entailed in terms of pre-sale reorganization and restructuring of the enterprise - including employment shedding. Issues of private efficiency and the need to establish effective corporate governance in former state owned enterprises are highlighted along with the notion that Treuhand ownership should be used to deal with market imperfections prior to sale to the private sector.

In section 5, a series of secondary privatization methods is presented, including the East German version of 'insider privatization': the MBO (Management Buy-Out). MBOs are mainly small enterprises of less than 20 employees. For larger enterprises failing to attract a buyer through the primary privatization method, a number of alternatives to closure have been developed by the Treuhand and by private, public and hybrid institutions. Institutions have been designed to take advantage of economies of scale in providing close control over enterprises. The aim is to enable forward-looking or strategic restructuring to take place which has not generally been possible in the Treuhand.

Section 6 returns to the problem of deindustrialization. Given its budget constraint and policy instruments, it is difficult to argue that the Treuhand could have prevented such a scale of job loss in manufacturing. However, it appears inconsistent from the perspective of the economy as a whole for the Treuhand to be offering employment subsidies associated with enterprise sales (using a shadow price of labour) whilst cutting jobs to control its own deficit (using the market wage). Section 7 concludes with a brief consideration of the policy implications of the analysis.

2. How has German reunification affected the context for transforming the enterprise sector?

All transitional economies have experienced dramatic falls in industrial output. The fall in East Germany was the largest of the Central European countries. Industrial output halved between the first half of 1990 (before monetary union) and the first half of 1991. Since then it has fallen further and stabilized at one third of its original level.

For the other countries in Central and Eastern Europe, a substantial proportion of the fall in output was caused by the reduction of aggregate demand associated with stringent macroeconomic stabilization packages. East Germany is quite different since aggregate demand has been sustained by transfers from West Germany: for example, between 1990 and 1991, GNP fell in real terms by 28% in East Germany, whilst domestic demand rose by almost 10%. A dramatic indication of the divergence between domestic demand and output is reflected in East Germany's current account deficit - 88% of GNP in 1992.

Output fell not because loss-making enterprises were closed down but because demand for the products of East German firms collapsed. West German and 'world market' goods were immediately available and East Germans could afford to switch their consumption basket to western products. East German real wages jumped from being similar to those in CSFR to being of the order of ten times as high. Investment demand too was buoyant in East Germany in contrast to the situation elsewhere in the transitional economies. It increased by nearly 30% in 1991 in East Germany. On the whole, East German producers were unable to compete successfully for this business so that high investment as well as consumption demand was associated with low sales by East German enterprises.

Elsewhere in Eastern Europe, large depreciations offered protection to domestic producers in markets both at home and abroad. In East Germany, there was a large real appreciation. At the post-unification real wage, Akerlof et al. (1991 Table 8 p.27) estimated that less than 10% of employment was profitable. Table 1 presents the operating results for Treuhand firms in 1991 and 1992 showing losses to the extent of nearly one-fifth of turnover.

Table 1. Operating results of Treuhand enterprises

	1991	1992 (prelim. data)
Turnover per employee (DM)	54,300	54,500
Profit or loss per employee (DM)	-10,200	-10,350
Profit or loss (% of turnover)	-18.8	-19.0

Source: Lichtblau (1993) Table 7, p.27.

Akerlof et al. (1991) argue convincingly that wages rose because of the efforts of the West German unions - sanctioned at the time by the Government and the West German employers - to move East German wages rapidly to parity with those in the West. The government's decision to convert Ost-Mark wages into Deutsch-Marks at 1:1 may have sped up the convergence of wages but was not decisive. This view is supported by the fact that East German wages increased after currency conversion.

Prior to reunification, it was estimated that industrial productivity in East Germany was 40-50% that of the West (see Beintema & van Ark 1993 Table 11 for a summary). However, recent research suggests a much lower value of 30% per person and 28% per hour (Beintema & van Ark 1993, Tables 11, 12). It appears that the physical capital stock was in poorer condition than previous estimates had assumed and the labour force far less well trained relative to their West German counterparts than the paper qualifications would suggest (Birnie et al. 1993). Hourly labour costs in the East German engineering industry were 40% of those in the West in mid 1991 and 57% in the spring of 1993 (Bispinck 1991, p.474; Bispinck 1993, Table 6). With labour costs on a trajectory to reach 80% of West German levels by 1996, it is clear that without massive investment in physical capital and retraining, profitable employment in the tradeable goods sector in East Germany is bound to remain far below the labour available.

Prospects for the East German firms sank further with the break-down of the CMEA trading system and the collapse of output in the economies of Eastern Europe and the former Soviet Union. Enterprises faced simultaneously a four-fold real exchange rate appreciation and the loss of major markets.

The government's privatization strategy was based on an over-optimistic view of the competitiveness of existing East German plant and equipment and of the likely magnitude of investment in East Germany by West German companies. The idea was that the privatization agency, the Treuhandanstalt, would rapidly find westerners with management expertise and access to finance who would buy the East German enterprises, take control of them and turn them around into high productivity firms competitive in the European market. This optimism is reflected in the initial estimate made by the first West German head of the Treuhandanstalt of the value of the enterprises in its portfolio: DM600 billion (see Table 2). Instead, the portfolio has been officially valued in the Treuhand's Opening Balance Sheet (published in October 1992) at DM81 billion. However, in order to sell these enterprises, a cost of DM215 billion is expected, confirming that enterprises typically had a negative value at the market wage.

Table 2. Estimates of the value of the Treuhand's original portfolio of enterprises

Date of estimate	Estimate in billion DM	Estimated by
Early 1990	1,365	Modrow administration of the GDR
Spring 1990	600	Treuhand-president Detlev Rohwedder
October 1992	81[1]	Opening balance sheet of the Treuhandanstalt

Note 1: The net equity capital of enterprises is estimated at DM81 billion; the cost of privatizing, restructuring and closing them is DM215 billion.

Source: Kühl (1993) p.1, Treuhandanstalt (1992)

The government's optimism about western engagement in East Germany lay at the heart of its macroeconomic strategy for transition. Productivity convergence with West Germany was to occur through huge flows of investment so as to equip East German workers with capital per head equivalent to that in West Germany. Estimates of the amount of investment required to achieve productivity convergence between East and West Germany within 10 to 15 years, range from DM100 to 200bn per year. However, total investment spending in 1991 was DM83 (in 1992, DM 109) billion, of which investment in the enterprise sector[1] was DM 40.5 million in 1991 and DM60 million in

[1] Excluding the post-office, telecommunications and railway enterprises.

1992 (Sachverständigenrat 1992, p.93).

Convergence of productivity levels between Eastern and Western Germany would also be assisted by migration and commuting[2]. There is evidence, for example, of a very high incidence of training being undertaken by commuting employees. This suggests that commuters can accumulate additional human capital in the west which could be very productively used in the East as conditions improve there (Pischke 1993, p.15).

Why would westerners and in particular, West Germans, wish to buy East German enterprises? The optimistic scenario for rapid transition assumed that the bulk of Germany's large companies would commit themselves to major investment in the new Federal States, either in the form of greenfield investments or through the purchase of Treuhand enterprises. The motive for the large companies was the availability of a skilled workforce (cheaper at least for some years than in West Germany) and either existing production facilities or easier planning permission for greenfield sites than would be the case in West Germany. But their decision to move into East Germany via a Treuhand company often hinged on the assumed value of the Treuhand firm's sales contacts in Eastern Europe. Retail and distribution networks familiar in Western economies are very underdeveloped in Eastern Europe and made very attractive the idea of acquiring enterprises with distribution networks in place and/or with strong 'brand-names' in those markets.

Indirect support for the hypothesis that this was the key motivation for West German firms comes from a survey of the investment motives of large Western investors and potential investors in Eastern Europe. They found that the principle motive for all investors was to establish market share in the region (Business International/ Creditanstalt 1992).

Initially, West German companies expected to achieve rapid access to the new Eastern European markets by the purchase of East German firms. With the collapse of the Comecon trading system, the deep recessions throughout the region and the disintegration of the Soviet Union, the value of East German contacts with the former communist economies shrunk rapidly. Far from offering markets to companies prepared to invest in

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[2] 3 % of the East German population moved to West Germany before monetary union. Migration then rapidly stabilized to a level of about 20,000 per month (about twice the level of migration between West German states). By 1991, a reverse flow had begun amounting to 7,000 per month. Commuting from East Germany to work in West Berlin or West Germany has built up to a significant level of half a million (Pischke et al. 1993, p.1).

East Germany, it became clear that many Treuhand enterprises lacked not only management skills, adequately trained workers and capital equipment but also markets. Higher than expected unit labour costs and the lower than expected value of East German contacts with the former planned economies has led German companies to scale down their investment in East Germany relative to initial plans.

Two policy instruments have been used by the government to promote investment and privatization. Investment grants and subsidies are available which can reduce the cost of an investment project by up to 50%. Secondly, subsidies are provided in conjunction with the privatization of state-owned enterprises by the Treuhandanstalt. The price at which the enterprise is sold by the Treuhand depends on three factors: the number of jobs the investor is prepared to guarantee, the amount of investment guaranteed per employee, and the amount of enterprise debts and environmental burdens the investor takes on. Ceteris paribus, the higher the number of employees taken on, the greater the discount on the sales price for the enterprise.

Had the Treuhand not provided employment subsidies in the course of its privatization deals, the loss of jobs in East Germany would have been even more rapid. One method of preventing the haemorrage of jobs would have been to provide general protection to employment in East Germany, for example through an employment subsidy (Akerlof et al. 1991, Begg & Portes 1992, Paqué 1993). Only the government and not the Treuhand could have implemented such a policy.

3. The Treuhand's record on privatization

3.1 Sales

There is general agreement that the Treuhand has been successful in one respect - it was set the objective of rapid privatization and this has been achieved. Table 3 highlights the run-down of its portfolio. The Treuhand began with eight and a half thousand enterprises comprising some 44,000 plants. Privatization has taken the form either of the sale of an enterprise as a legal entity or of part of an enterprise as a so-called asset deal. In Table 3, it is shown that around six thousand sales of each type had occurred by mid-1993. In addition to sales to the private sector, the Treuhand's stock of enterprises has been reduced through several other routes. In particular, as part of the restitution programme, more than a thousand enterprises have been returned to those who owned them prior to their nationalization by the Communist authorities. Another set of enterprises - mainly public transport and utilities - have been transferred to local authorities. There are almost 3,000 enterprises scheduled for closure. In summary, nearly 17,000 enterprises or parts of enterprises have been sold, returned to a previous owner, closed or transferred to a local authority. The Treuhand still has over 1,500 enterprises on its books.

Measuring the Treuhand's progress in numbers of enterprises is very crude. The data available is still very poor but a clearer impression of the meaning of these numbers comes from an examination of the results of privatization in terms of the receipts from sales and the amount of investment and number of jobs guaranteed by the purchaser of the enterprise. In section 3.3 below an inspection of the enterprises remaining in the Treuhand shows where success has been very limited.

Table 3. The transformation of the Treuhand's portfolio of enterprises

1. Treuhand's original portfolio: 1/7/1990	
Enterprises	8,500
Plants	44,000
2. Transformations of Treuhand's portfolio: 30/6/1993	
Privatized	12,195
of which ▪ enterprises	5,831
▪ parts of enterprises	6,364
Enterprises returned to former owner (restitution)	1,360
Enterprises transferred to local authority	259
Enterprises closed or in the process of closure	2,857
Total of transformed units	**16,671**
Enterprises remaining in Treuhand's portfolio	**1,668**
3. Other activities	
Transfer to local authorities of enterprise facilities,	8,809
of which, educational facilities	585
kindergartens, creches	728
sports facilities	914
Sales of real estate	16,405 objects

Source: Treuhandanstalt 1993.

As noted in the introduction, the Treuhand has valued its assets at DM81 billion. This valuation was based on the revenue achieved on sales to the middle of 1992. Table 4 shows that investment guarantees far exceed privatization receipts. The time profile for the investment guarantees is bell-shaped with its peak in 1994-95 with respectively 19.9% and 17.4% of investment guarantees falling due (Lichtblau 1993 Figure 1, p.13). By the end of 1992, only 2% of guaranteed investment was to have taken place but by the end of 1995, almost 50% should have occurred. (For almost 20% of the investment guarantees, no date was fixed for their implementation.)

Table 4. The revenue from sales and the amount of investment and number of jobs guaranteed by purchasers

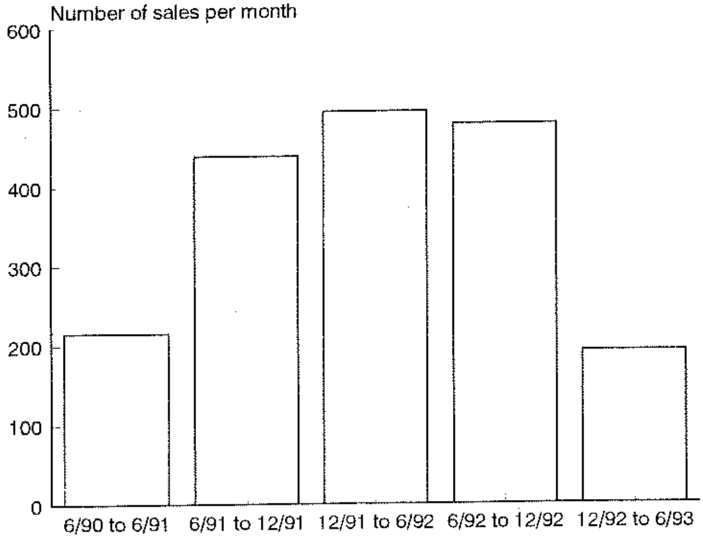
Data to the end of June 1993

Cumulative from July 1990 to mid 1993	Number of firms and parts of firms sold	Sales receipts DM billion	Employment guarantees '000	Investment guarantees DM billion
1. Main privatization activity (sales of enterprises and parts of enterprises)				
	12,195	32.0	1,030	122.7
2. Other major activities				
Sales of land released from enterprises (e.g. as business parks)		10.2	282	34.6
Agricultural and forestry land		1.0	138	19.1
3. Total for Treuhand (including minor activities)		43.5	1,468	180.1
4. Memorandum items				
Data for East Germany, 1992	GDP DM billion		Employment '000	Total investment DM billion
	247		6,297	109
				Investment in the private enterprise sector
				60

Source: Treuhandanstalt (1993), DIW (1993) Table 2 p.133, Sachverständigenrat (1993) Table 23 p.93.

The time profile of the Treuhand's sales is presented in Figures 1a to 1d. In Figure 1a, the record of monthly sales of firms and parts of firms since the inception of the Treuhand is shown. The peak of sales was in the first half of 1992 and there was a halving of sales activity in the first half of 1993. Over time there has been a clear decline in the number of jobs guaranteed per firm (or part of firm) sold - from more than 200 per firm up to mid 1991 down to about 60 since mid 1992. Investment per job guaranteed has

Figure 1a Monthly Sales of Firms and Parts of Firms

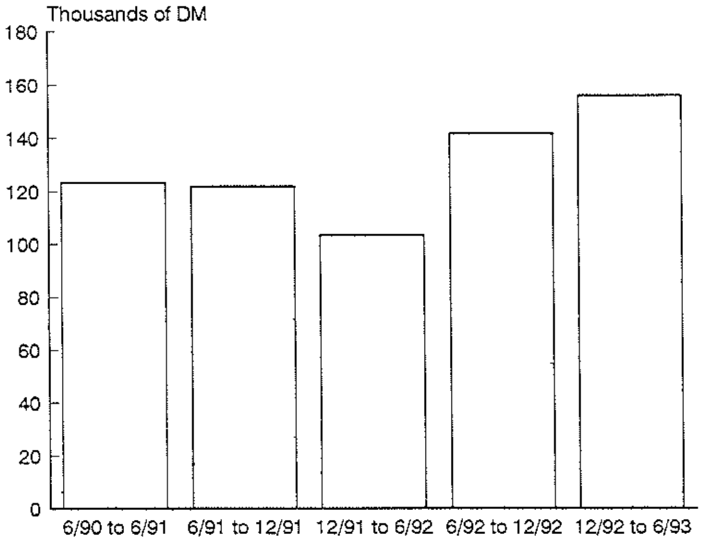


Source: Lichtblau (1993), Table 1, p.11, Treuhandanstalt (1993)

Figure 1b Jobs guaranteed per firm or part of firm sold

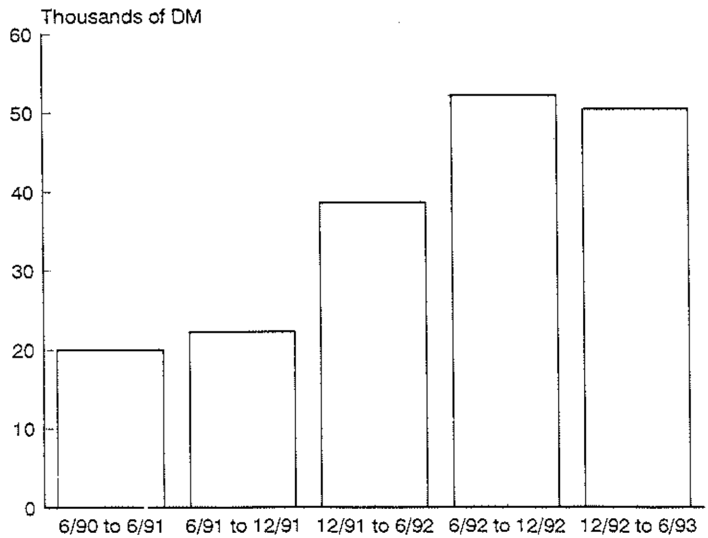
Source: Lichtblau (1993), Table 1, p.11, Treuhandanstalt (1993)

Figure 1c Investment guaranteed per job guaranteed



Source: Lichtblau (1993), Table 1, p.11, Treuhandanstalt (1993).

Figure 1d Sales receipts per job guaranteed



Source: Lichtblau (1993), Table 1, p.11, Treuhandanstalt (1993).

remained fairly constant (Figure 1c). As Figure 1d shows, the sales receipts per job guaranteed have increased. To some extent, this simply reflects the fall in jobs per sale (Fig. 1b). However, a further factor behind this pattern is that as financial restructuring has proceeded (see section 4 below), enterprise debts have been written down or written off. Early on, it was much more common for enterprises to be sold at a negative price, leaving the new owner to discharge the old debts.

3.2 New owners

Privatization in East Germany has produced an ownership structure quite different from elsewhere in the transitional economies. The basic type of privatization in East Germany shares key characteristics with some kinds of foreign direct investment elsewhere - namely, the new owner with a majority ownership stake is a Western enterprise. The most common form of ownership of larger privatized East German companies (with at least 100 employees) sold by the Treuhand is one in which there is a dominant owner (with a stake of at least 50%) which is a West German company. In other words, privatization has created subsidiaries of West German companies (Carlin et al. 1993).

Of sales to foreign companies, a majority stake by a West German subsidiary of a foreign company is as common as the purchase by a foreign company without such previous involvement in Germany. New foreign participation as a means of entering the German (and for some companies, the EC) market is relatively infrequent (Frisch 1992). Table 5 indicates that 700 firms or parts of firms have been sold to foreigners - the larger than average size of these firms is clear from the comparison between the foreigners' 5.7% share of sales compared with a share of 15% of sales receipts and investment guarantees. The receipts from sales of Treuhand firms to foreigners is of the same order of magnitude as the foreign direct investment attracted by its most successful Eastern European neighbours (Hungary and CSFR).

East Germans have played a very limited role in the purchase of larger enterprises. Their ownership of firms stemming from the activities of the Treuhand is limited to so-called MBOs - management buy-outs of usually small parts spun off from Treuhand firms (see Table 5 and section 5 below).

Table 5. The role of foreigners and East Germans in privatization
Data to the end of June 1993

	Number of firms and parts of firms sold	Sales receipts DM billion	Employment guarantees '000	Investment guarantees DM billion
Total	12,195	32.0	1,030	122.7
of which to foreigners (% of total)	700 (5.7%)	4.8 (15.0%)	138 (13.4%)	18.5 (15.1%)
MBOs[1, 2]	2,364 (19.5%)			

Notes: 1. In general these are sales to the East German managers/employees. There are 200-300 cases of MBIs where a West German manager has become the owner in a spin-off (see section 5).
2. Two-thirds of the 1,733 MBOs which had taken place by the end of 1992 were firms with less than 50 employees (Treuhandanstalt (1992) NL-Report 12.92, p.15).

Source: Treuhandanstalt (1993)

Ownership by the state (outside the THA) is confined to utilities apart from the well-known case of Jenoptik from the former Zeiss Kombinat but would be expected to increase in the light of the creation of the state holding companies described below (section 5).

There has been only one case of stock market flotation and even in this case, a West German company in the same sector held 51% of the equity. The East German company - Sachsenmilch AG - went into liquidation in July 1993. This case exemplifies the magnitude of the task faced by management in achieving a successful turnaround of an East German firm. Even with a controlling interest held by a Western firm and with the backing of the Deutsche Bank, control of costs during the phase of new investment was inadequate to prevent bankruptcy.

The equity of privatized East German companies is thus mainly held very tightly, indicating that considerable control over management by the owners is viewed as necessary.

3.3 Deindustrialization

Employment in East Germany has fallen by over 3 million from over 9 million before reunification to 6.3 million in the last quarter of 1992 (DIW 13/93, Table 2). The great majority of lost jobs have been in manufacturing with a decline of 2.25 million. In manufacturing, the sectors in which output growth has begun are those which supply the construction industry, and those which supply local consumers (printing industry and food and drink). Investment goods and especially machinery have been hardest hit with the share of mechanical engineering in manufacturing output falling from 24% to 11% (DIW 1993 Table 3).

The continued presence of the Treuhand in manufacturing remains very important as enterprises in this sector have been hardest to privatize. By the end of 1992, the proportion of total employment which was in Treuhand firms was less than 10% but over one fifth of manufacturing jobs were still in the Treuhand (see Table 6). For firms with more than 20 employees, one third of all manufacturing jobs were in THA firms - down from one half in the middle of 1992. Table 6 highlights the problem industries within manufacturing. Machinery accounts for nearly one third of all jobs left in the Treuhand and 45% of jobs in this sector in East Germany were still in Treuhand firms at the end of 1992. As Table 6 indicates the losses of Treuhand machinery firms increased between 1991 and 1992.

Table 6. Manufacturing: the importance of the Treuhand as an employer, the role of large enterprises and the magnitude of losses

	% East German employment in THA-owned enterprises.	% THA employment in enterprises with > 1,000 employees.	Profit or loss as % of turnover[1]	
	end 1992	Feb. 1993	1991	1992
Manufacturing	31	41	NA	-21
machinery	45	29	-17	-32
chemicals	47	87	-58	-38
iron & steel	44	54	-26	-11
vehicles & shipbuilding	38	53	-43	-14
electrical engin. & electronics	25	55	-43	-37
metal fabrication	21	41	6	0
textiles & clothing	47	0	-64	-37
food & drink	10	0	-13	-6
Mining	74	NA	-16	-30
Economy (incl. enterprises with <20 employees)	8			
Manufacturing (incl. enterprises with < 20 employees)	21			

Notes: 1. From a sample of 2,647 enterprises in 1991 and 812 enterprises in 1992 (samples may not have been fully representative).

Sources: Column 1: Lichtblau (1993) Table 3, p.16; Column 2: DIW (1993) Table 6, p.139; Column 3: Lichtblau (1993) Table 8, p.29.

The other notable characteristic of the firms still owned by the Treuhand in mid 1993 is that the bulk of employment remaining (300,000) is in very large firms: just under 50% of jobs are in 29 mining and manufacturing firms with more than 1,500 under 50% of jobs are in 29 mining and manufacturing firms with more than 1,500 employees (Treuhand 1993).

Although labour shedding has produced rapid productivity growth in manufacturing (a doubling from the first quarter of 1991 to the last quarter of 1992), this has been almost matched by the equally rapid growth of wage costs. Thus unit labour costs in East Germany remain on average nearly double those in West Germany (DIW 1993). Since there is no protection for tradeables, output prices are at best the same as in West Germany and the price-cost squeeze identified by Akerlof et al. (1991) persists.

4. The 'Primary Method' of Privatization in East Germany: broad-brush restructuring and sale to 'competent outsiders'

Privatization in East Germany has taken place almost exclusively from above. Compared with elsewhere in Eastern Europe, it has been very fast and has involved much more restructuring ahead of privatization. Two objectives have dominated the process: speed and the matching of management to assets. The work has been done by the privatization agency - the Treuhandanstalt or THA (see Carlin and Mayer 1992 for details of the establishment and governance structure of the THA).

4.1 Decentralization and devolution of control to the private sector

The THA sought to devolve control of its enterprises through the creation of supervisory boards for all enterprises with more than 500 employees. German corporate law requires the establishment of such second-tier boards. Supervisory boards play a vital role in the governance of German companies and are especially important when major investment and strategic decisions face a company (e.g. Schneider-Lenné 1992). In the context of privatization, the supervisory board was an institutional route through which East German enterprises could be brought into direct contact with the West German corporate world. In general, supervisory boards were chaired by West Germans and had one or two other West German members. The aim was to use supervisory boards:

(i) to gather and diffuse information to managers and employees within the enterprise on how the East German enterprise would have to be reorganized in order to have a chance of survival.

(ii) to provide contact with potential investors from the same industry in West Germany.
(iii) to provide advice on internal reorganization of the enterprise and its management.

The incentives for supervisory board members to fulfil these functions were far from perfect. Board members received a fixed fee - far below the fee for service on a board in West Germany in circumstances in which the demands on members' time were much higher. Many cases have been reported by the German weekly *Der Spiegel* in which supervisory board members used their position to reduce rather than enhance the enterprise's survival chances. It was in the interest of some enterprises in West Germany to eliminate competition from East German firms.

In other cases, supervisory boards - often those appointed before reunification - colluded with the management to prevent the Treuhand from restructuring firms. The THA was unable to prevent entirely the exercise of such insider power although it has been very limited in scale as compared with elsewhere in the region. The efficient functioning of supervisory boards relied on the importance of reputation to board members. The large German companies and banks nominated employees to sit on supervisory boards to demonstrate their contribution to the reunification effort. Such nominees voiced their reluctance to take on the position of chairman of the supervisory board precisely because of their concern that subsequent failure of the enterprise would damage the firm or bank's reputation.

For all its shortcomings, the implementation of two-tier boards provided a decentralized method for introducing market-economy expertise and contacts into state-owned enterprises at an early stage.

4.2 Evaluating enterprises, financial restructuring and identifying environmental liabilities

One of the THA's initial tasks was to establish the value of its portfolio. Enterprises were instructed to provide opening balance sheets in DM for 30th October 1990. Although initially viewed as a straightforward accounting exercise that would be completed within months, this task was transformed into a major project of enterprise evaluation and financial restructuring which lasted two years. For the reasons discussed in section 2 above, enterprise balance sheets based on GDR data were seen to bear no relation at all to the market value of firms. The THA responded to this by setting up a team of Western experts (managers, accountants, management consultants), formally accountable to the

Ministry of Finance, not the THA, to evaluate each enterprise.

Enterprises which were classed as potentially viable had their balance sheets restructured so as to give them a capital structure (debt:equity; and debt:turnover) similar to a West German firm with the same projected turnover in the same industry. (For a theoretical rationale for this practice see the discussion of debt write-off in Aghion *et al.* 1993). Financial restructuring entailed the writing down or writing off of old debts inherited by the enterprise from the GDR era. In addition, it was often necessary to recapitalize the asset side of the balance sheet. As well as financial restructuring, the THA has engaged in environmental audits of its enterprises to evaluate the burden of environmental liabilities.

4.3 Efficiency restructuring: breaking up enterprises

In tandem with the evaluation of enterprises and financial restructuring, enterprises have been split up. In principle, the huge Kombinats[3] of the former GDR were to be broken up as part of the corporatization process which had begun before reunification. However, over one third of the Kombinats remained intact. Since July 1990, the process of splitting up large concerns has continued with the result that the number of enterprises which are or were owned by the THA continues to grow. It began with 8,500 enterprises - this number has risen to 16,671. In addition to simply splitting up the Kombinats and hanging the former subsidiary enterprises directly on to the THA, a great deal of breaking up of individual enterprises has also taken place. An indicator of this is that in addition to the sale of enterprises as legal entities, over 6,000 parts of firms have been sold in asset deals.

The motivation for breaking up the Kombinats and for splitting up enterprises was to increase efficiency. Allocative efficiency requirements to reduce horizontal integration have played a relatively limited role in East Germany in the light of the strength of competition in the product market coming from West German suppliers.

The need to improve private productive efficiency has dominated the splitting up process. The Kombinat structure was intimately linked in many industries with the mode of sale of enterprise output. Sales to the Comecon area often comprised orders for a set of related output from a series of members of the Kombinat. The frequently discussed

[3] The organization of the enterprises of the GDR in three hundred giant multi-enterprise groups or Kombinate began in 1979. This process was far more comprehensive and systematic than was the case elsewhere in Eastern Europe.

synergy between member enterprises of a Kombinat appears to have value only in the context of the now-defunct Comecon trade arrangements and to a limited extent in sales of turn-key projects to LDCs. The criteria for efficiency restructuring have been dominated by the need to create rough units which 'make sense' in market-economy terms. As ever in the East German case, West German structures have formed the explicit standard of comparison (see Bischof et al. 1993 for details of how this was effected in one case of restructuring).

Opposition from insiders to the break up of Kombinats has been particularly prevalent in cases where the Kombinat was managed by a holding company with no core business of its own and where the supervisory board was weak. As enterprises were broken up, land not required for business purposes was separated from the enterprise and made available for new activities.

4.4 Selling core business activities

The THA has focused its sales strategy on finding investors able to complete the turnaround of a THA enterprise by undertaking sufficient investment to give the firm a secure future. The strategy was therefore directed exclusively toward Western investors - from the former West Germany or from elsewhere in the capitalist world.

As noted in the introduction, industrial employment in East Germany has not been preserved. Nevertheless, the sales strategy of the Treuhand was based on the preservation of the core activities of enterprises. Its aim was first to match the assets of East German enterprises - rebundling these assets when necessary - to the management skills of potential purchasers. A potential purchaser had to demonstrate knowledge of the industry and in particular, that there was a market for the enterprise's output. Secondly, the purchaser had to demonstrate that it had the financial and managerial resources necessary to carry out the remaining restructuring tasks, in particular strategic restructuring in the form of new investment and the development of new products.

One reason for the close interest of the Treuhand in the experience and qualifications of a potential investor was that the sale of an enterprise typically involved payment of a subsidy to the purchaser. For example, a negative price or a positive price offset by some element of subsidy. If a negative present value enterprise is 'sold' and the purchaser given a subsidy, the rational thing for the purchaser to do is to abandon the enterprise and walk away with the money. To prevent this, the THA has included employment and investment guarantees together with penalties for failure to fulfill the conditions in the contracts of sale of its enterprises.

Employment subsidies have been a key component of the sales strategy. Investors have been given a discount on the sales price of the enterprise according to the number of jobs guaranteed by the investor. In some cases, the price becomes negative (i.e. the investor receives the enterprise plus a grant). The basic rule of thumb is: ensure that the investment per head will be sufficient to make the enterprise competitive (assuming West German wages within 3-5 years), then give a discount on the current asset value based on the number of jobs guaranteed. There was no centrally determined scale of subsidies used in negotiations, but subsidies varied according to the availability of alternative job opportunities in the area and the external effects of employment in the firm in supporting employment elsewhere. For example, in the sales associated with enterprises from one Kombinat, discounts per job guaranteed varied from DM 10,000 for an enterprise on the outskirts of Berlin to DM80,000 for one near the Polish border (Bischof et al. 1993). In addition, in industries identified as of strategic importance, such as microelectronics, or subject to particular political pressure (such as ship-building) larger subsidies were provided (over DM250,000 per job guaranteed in microelectronics, Bischof et al. 1993).

The advantage of this approach is that regional and industrial external effects can be taken into account. The disadvantage is that investors face market wages and prices ex post at which they would, in the absence of the contracts, choose lower employment. Thus, the THA is required to monitor its employment and investment contracts and therefore to maintain contact with its former enterprises for the length of the contracts.

4.5 Passive versus strategic restructuring

Enterprises which have been privatized have typically already undergone considerable restructuring under THA-ownership as described above. But usually, only once the enterprise is in the private sector has strategic restructuring begun. Until very recently, the view of the Treuhand has been that it should not carry out forward looking or strategic restructuring. By strategic restructuring is meant the reorientation of an enterprise toward new markets requiring major investment in fixed capital and the development of new products. Such decisions should, in the view of the THA, only be taken by agents who would bear some risk. This was reflected in the very limited willingness of the THA to give permission for investment expenditure. It exercised tight control of enterprise access to finance for investment by rarely giving guarantees for investment credits. Banks were very unwilling to lend to Treuhand firms without such guarantees because of the extent of uncertainty hanging over the future of the enterprise.

Aggregate data reflect the fact that investment in THA firms is much lower than in privatized firms. For firms owned by the THA in October 1992, investment in 1992 was just DM 7bn, with one quarter of enterprises carrying out no investment at all. In privatized firms, investment was DM 30.3 bn representing three times as much investment per employee (Kühl 1993 p.18). Another survey has found for manufacturing that although 55% of employment was in THA firms, these firms carried out only one-quarter of investment in the sector in 1992. Manufacturing firms with West German owners accounted for 17% of employment but 43% of investment (DIW 52/92). Table 7 shows the difference in investment per employee in manufacturing firms owned by the Treuhand, privatized and newly founded firms.

Table 7. Manufacturing. Investment by Treuhand, privatized and newly founded firms

Investment per employee (DM)

	Treuhand firms	Privatized or reprivatized (former THA firms)	Enterprises founded since 1989
1991	11,070	23,340	47,360
1992	12,900	29,900	132,400

Source: DIW (1992b) Table 8, p.718.

As noted above, employment shedding in East Germany has largely taken place under THA ownership. This marks a striking contrast with developments elsewhere in Eastern Europe where mass lay-offs have been rare and largely limited to the few purely defence related enterprises which have been completely closed (e.g. in Slovakia and Poland).

One can examine the behaviour of enterprises which have remained in the

Treuhand - i.e. the 'long-stay' firms - using surveys of THA firms and the same firms once privatized (Kühl 1992, 1993) from the time of the original questionnaire in April 1991 until the most recent one in October 1992. Employment in these firms has fallen by just over one half during this period. A rather disturbing aspect of the pattern of job losses in these long-stay cases is that large-scale employment shedding has left the structure of employment as between production, administrative, research and development, and sales/purchase workers unchanged (Kühl 1993 Table 5). This is one indicator of a passive management of firms.

There is also information on the forecasts of enterprises of future employment changes. Firms privatized by October 1991, expected a decline of only 6% in employment over the course of 1992-3 whereas THA-firms expected a decline of more than 25% (Kühl 1993 Table 3). This provides some confirmation of the view that investors will only buy enterprises once employment shedding has largely occurred.

5. 'Alternative Methods' of Privatization used in East Germany

5.1 Managers and investment funds: MBOs and MBIs (Management Buy Ins)

MBOs - sales to insiders

As a consequence of the THA's basic strategy - to <u>sell</u> enterprises to buyers who have western management expertise, knowledge of western markets and technology - East Germans have been largely excluded from participation. They lack access to finance as well as to western networks. East German involvement developed as the threat of unemployment prompted existing managers of THA enterprises or parts of enterprises to propose the spinning off of a part of the enterprise as an independent business. This is the clearest example in East Germany of 'privatization from below' where the initiative for a privatization project has come from the Eastern management itself. This has provided a route to the creation of indigenous small and medium sized businesses, although the likelihood of survival of these so-called Management Buy Outs is not judged to be very high (DIW 1992b). The Treuhand did not initiate the MBO route as a deliberate strategy. They began to emerge in the regional subsidiaries of the THA and it was only in the Berlin regional branch that a properly worked out policy to support the preparation and screening of projects occurred. Only in Autumn 1992 did the THA establish a fund to provide MBO candidates with access to consultancy advice.[4]

MBIs, investment funds and bank holding companies - sales to outsiders

The Treuhand ran a programme in 1992 to try to attract mainly western managers to establish an independent business in East Germany by taking over a Treuhand enterprise. This can be thought of as a variant on the basic THA strategy - the key difference here being that rather than attracting a West German or foreign company to take over the THA firm, the MBI route is designed to open the way for individual entrepreneurs. 400 highly qualified candidates were left after the initial screening and were then matched with THA-firms. The candidates were then put in contact with a series of West German and foreign 'venture capital funds' in order to secure participation by a financial institution in the risk capital of the enterprise. 210 MBIs had resulted by the spring of 1993. Fifteen funds took part in the programme and have contributed DM 0.5bn as equity finance. The Deutsche Bank established an industrial holding company in 1991, The Deutsche Industrie Holding, with the objective of purchasing 100% of a set of THA firms. The idea was that the DIH would provide 'hands-on' management to enable the turnaround of the enterprises. After a very slow start, it sharply increased its commitment with the purchase of 13 Treuhand firms in July 1993 taking its total employment guarantees to nearly 3,500 and doubling its investment guarantees to DM150 million (Financial Times 2.8.93 p.15). There are a number of other private sector investment funds operating in a similar way - e.g. the Ermgassen fund, EGIT, and Robert Flemings of London.

The limited scale of involvement by bank holding companies and venture capital funds underlines that the scarcity of management capabilities appears to be a binding constraint on the pace of transition of the enterprise sector. Even in East Germany, methods for economizing on managerial resouces have proved necessary.

5.2 THA sets up restructuring companies with outsiders managing the restructuring - the Management KGs

In the spring of 1992, the THA embarked on an experiment by setting up two new companies to introduce high-powered incentives into the restructuring and privatization

[4] To date, there have been almost 2,400 MBOs accounting for just under one fifth of the total number of sales of enterprises or parts of enterprises. Two thirds of MBOs have been small firms with less than 50 employees; 6 MBOs have between 500 and 1,000 employees. 45% are in manufacturing (Treuhandanstalt, NL-Berichte 12.92).

process whilst retaining the ownership of enterprises in state (THA) hands. The THA believed that a new strategy was necessary because large numbers of 'potentially viable' enterprises had failed to attract a buyer. Prolonged parking of enterprises in the THA was undesirable and new institutional forms for state ownership were required which would provide more time for the enterprise to prove its viability and clear incentives for effective restructuring, including the forward-looking strategic restructuring typically denied to THA firms. There was a clear political objective for the THA as well - it is working to a time constraint and is due to have wound up its mainstream privatization activities by the end of 1993. Without creating new institutions for many of its 'potentially viable' enterprises, the THA would be forced to close them down.

The outcome was the creation of a new institutional form for state ownership known as the Management KG. The German corporate form of the 'limited partnership' (KG) Kommanditgesellschaft was chosen as the vehicle for setting up a restructuring company since it permits the separation of management from ownership which remains with the THA. An individual experienced western manager takes on the responsibility for turning the group of enterprises around and can earn a large bonus from a successful privatization. The Treuhand provides the finance for restructuring needed in the KGs and sets the budget constraint. The managers of the KGs negotiate directly with the Treuhand's vice president.

The Management KG was designed to deal with medium-sized (Mittelstand) enterprises and to effect privatization within three years. This is not a structure set up to provide for prolonged periods of maintenance in the state sector.

The theoretical advantages of the Management KG structure as compared with the THA hinge on the fact that the KG provides the enterprise with continuity of concentrated managerial attention. In the best cases under THA administration, a combination of talented THA case officers and active and constructive supervisory board involvement achieved successful restructuring. But it is difficult to imagine that the devolution of responsibility to supervisory boards for the oversight of enterprises in need of substantial restructuring can provide a solution when the time scale is 5 to 7 rather than 1-3 years. Secondly, as time has passed, enterprises remaining in the Treuhand have become stigmatized. Because the Treuhand's objective was rapid privatization, 'failure to find a buyer' has come to signal poor quality and great uncertainty about an enterprise's future.

This feeds back to worsen the enterprise's ability to find markets for its output since purchasers have no confidence that continuing supply will be forthcoming. For investment goods suppliers where service and spare-parts guarantees for years are necessary to achieve a sale, this has become crippling.

Finally, a critical difference as compared with THA-firms is the attitude of the Management KG toward investment. THA firms have typically invested considerably less than privatized firms as discussed above. The Management KG is designed to provide a channel through which public sector funds can be directed to new investment in enterprises within the context of a strategic restructuring of the firm.

5.3 Joint initiatives of the THA and the federal and state governments
Sectoral 'policies'

It was with the 'Revival of the East' (Aufschwung Ost) programme of spring 1991 - a joint statement by the Federal and state governments, the unions and business associations - that the Treuhand was obliged to take account of the employment and regional development consequences of its privatization activities. This programme also launched a massive flow of government resources to rebuild the infrastructure. However, it did not constitute a general structural policy for the region of the kind the unions had been demanding from the early days of reunification.

Policies for industries (and given the structure of GDR economic development) often also for regions were developed piecemeal in response to political pressure. The chemical industry was the first to be openly identified as needing a 'plan' in order to ensure its survival. The technological and economic indivisibility between the large enterprises meant that the standard THA incremental approach was inappropriate.

Microelectronics was also identified by the Federal government as a sector which would be retained. But in this case, the likelihood of generating a coherent plan for the industry was much lower because (unlike the chemical industry) the key microelectronics plants were located in several of the New Länder: there was no supraregional body capable of coordinating the reorganization of the industry. The THA had the capability for doing this but would not intervene in such 'structural' policy. The result was fragmentation and perhaps a greater downscaling of the industry than necessary (see Bischof et al. 1993 for a more detailed discussion).

'Maintaining the industrial core': the emergence of regional industrial policy

By mid 1992, there was considerable public concern that the rapid pace of employment shedding apparently necessary to achieve rapid privatization was denuding East Germany of its industrial core. Even with large cuts in employment within the THA, manufacturing enterprises were particularly hard to sell and prone to closure. This prompted the Federal Government to announce its commitment to retaining the 'industrial cores' of East Germany. As yet this term has not been defined. But it has been reflected in initiatives from the Länder to tighten the link between THA decisions and the Federal States in which enterprises are located.

One approach has been to set up a procedure for identifying enterprises still owned by the THA which are considered essential to the maintenance of a minimum industrial core in the region. For example in Saxony, the ATLAS project has been launched as a joint initiative of the Land, the unions and the THA. The Land (regional) government will support the modernization of these enterprises with the policy instruments available to them - funds for the improvement of the regional economy, guarantees for loans and labour market policy instruments. Enterprises chosen must be judged by the THA to be salvageable and the restructuring concept for the enterprise must maintain existing employment or create new jobs. Particular emphasis is given to enterprises with important links to other enterprises in Saxony.

The pledge to 'save the industrial core' has lent renewed momentum to the creation of holding companies at Länder level to which the ownership of THA enterprises would be transferred. The holding companies will take on enterprises with industrial and regional significance which are too large to be dealt with through a Management KG and too important to close. It appears that this is the institutional structure which will provide longer term state ownership and within which strategic restructuring will take place. Several Länder have moved to set up such holding companies (e.g. Berlin-Brandenburg, Saxony). Joint private sector (bank) and public sector (Land) funds are also being formed (e.g. the Sachsenfond) (Nolte 1993b).

6. Reunification, Privatization and Deindustrialization

Full economic and monetary union between two regions at quite different stages of development and with different economic and social systems has proved extremely costly.

It is impossible to look at the East German privatization process in isolation from this context. Rapid privatization through the Treuhand was based on the assumption that East German enterprises represented valuable platforms from which West German companies could develop markets in Eastern Europe. As the value of these market networks shrank, the Treuhand was faced with a portfolio of enterprises which had lost both their domestic and export markets. East German firms were squeezed in Eastern and EC markets by Eastern European enterprises desperate for orders and with costs a fraction of those in East Germany, and in their home market by western and especially West German suppliers.

There are two separate reasons for the massive run-down of employment by the Treuhand in its enterprises (prior to sale): (i) in order to create saleable units and (ii) in order to control the Treuhand's deficit. The Treuhand took the view that in order to sell enterprises to outsiders, a drastic slimming down of the workforce was necessary. In other words they believed, probably correctly, that western and in particular, West German, companies would not take on the task of implementing mass lay-offs. The reason for this is clear for West German firms or those foreign firms with subsidiaries in West Germany. Employment security constitutes an important feature of the set of implicit contracts which defines the operation of the German economic system (e.g. Houseman 1991). It is unlikely that companies would have been prepared to engage in forms of behaviour in East Germany unacceptable to their West German works councils since cooperation between employers and their work-force is highly valued. Lay-offs would also be more expensive for private employers because the Treuhand had fixed a maximum severance payment at a low level for employees of its enterprises.

The labour-shedding associated with enterprise sales in East Germany cannot be attributed solely to the high level of wages. The Treuhand has provided substantial employment subsidies as a discount on the purchase price of an enterprise (section 3 above). Experience in Eastern Europe demonstrates that a low wage is not a sufficient condition for achieving sales to outsiders. Foreign investors in Eastern Europe have required steep cuts in employment (a typical figure used in relation to foreign acquisitions in CSFR is a cut in employment of 30 - 40%) and the kind of financial restructuring, environmental audits and breaking up of enterprises discussed above, before they have been willing to buy (see, for example, the survey results in Business International/ Creditanstalt 1992).

The second reason for job-shedding was to control Treuhand expenditure. Employees on short-time work or laid off or working in job-creation and retraining schemes became the financial responsibility of other authorities - in particular, the Federal Labour Office. The Federal Labour office spent DM 45bn in East Germany in 1992. For the THA it was worthwhile to lay off workers when their value added was below the gross wage. For the government, given the level of unemployment benefit, employment of a worker with value added greater than the difference between the net (of tax and social security contributions) wage and unemployment benefit is worthwhile. The required value added threshold for the government would be a fraction of that for the Treuhand.

Thus on the one hand, in line with its obligation to take account of the regional and employment consequences of its privatization decisions, the THA has been using a shadow price for labour in its sales negotiations (implicitly recognizing the social cost of unemployment). On the other hand, the actual price of labour has been used as the decision variable for its own enterprise management with no systematic procedures for taking account of regional, agglomeration and other external effects.[5]

A wage subsidy would have afforded East German industry a measure of the kind of transitional protection available to other East European countries where sharp devaluations and real wage cuts have taken place. The sectors of East German business which are showing signs of life are the ones with some natural protection in the home market - construction, building materials, services, parts of the food and drink industry. Some form of protection is necessary to give East German industrial enterprises a chance to reestablish themselves in the home market as the basis for seeking markets abroad.

Combined with the Treuhand's basic strategy of bringing in effective management and corporate control and undertaking financial restructuring and the break-up of enterprises, a wage subsidy would have enabled a broader-based process of enterprise transformation to take place. The population of 'fast-track' enterprises with western owners, rapid movement to West German levels of productivity and high survival chances would probably be little different from under current policies (given the subsidies already on offer when enterprises are sold). But employment in the remainder of enterprises would be much higher than at present.

[5] New initiatives such as the ATLAS project in Saxony implicitly introduce the shadow cost of labour into the Treuhand's enterprise management decisions.

This broader based process of transformation would have required not only the introduction by the government of a wage subsidy, but also the recognition by the Treuhand that the primary method of privatization - i.e. selling firms to western companies - could not be relied on to produce sufficient sales of enterprises and thus guarantees of investment and jobs, especially in industry.

The Treuhand has recognized that greater use must be made of economies of scale in management and control in newly created institutions to achieve the strategic restructuring of its remaining portfolio. But this has come too late to prevent the excessive contraction of the industrial sector. Theoretical justification for the common ownership of groups of enterprises both by the state and in private institutions during transition comes from the literature on vertical integration (discussed in Carlin & Mayer 1992). It arises primarily from the fact that many enterprises in the transitional economies consist of rather arbitrary collections of assets and are in need of extensive restructuring. Institutional structures involving private, public and mixed forms of ownership are emerging which can fulfil this task. The role of private investment/venture capital funds in MBI/MBOs, the private management/ public ownership combination of the Management KG and the bank and state (Land) industrial holding companies are examples.

7. Conclusions and Policy Implications

The transformation of state owned enterprises into capitalist firms has proceeded very slowly in Eastern Europe. A much more rapid pace has been achieved in East Germany as several thousand subsidiaries of German and foreign companies have been established through the Treuhand's sale of former state-owned enterprises. Success with finding new owners has been paralleled by a catastrophic collapse of industrial employment. Labour shedding has occurred in response to the hardening of budget constraints facing enterprises. Enterprises have usually found it impossible to borrow from the banking system without guarantees provided by the Treuhand and the Treuhand has kept tight control over its guarantees. As a consequence, insufficient cash flow has led to lay-offs. The opposition of the workforce to redundancies has been muted by the extent of the social safety net and early retirement and labour market programmes financed by the West German tax payers.

As emphasized throughout this paper, the whole thrust of privatization in East

Germany has been toward finding a solution to the problem of corporate governance. The first step taken by the Treuhand was to bring in outsiders on to the supervisory boards of Treuhand enterprises. Although not always successful, the intention was to subject the management of large East German enterprises to scrutiny by outsiders and to provide a flow of information about required changes in organization. The great majority of enterprises with more than 100 employees which have been privatized have been sold to a West German or foreign company. In most cases the owner has a large majority stake - often 100%. This provides an indication of the extent of restructuring which is envisaged by investors as being necessary in order to turn the enterprises into profitable firms competitive in the European market.

Participation in the Treuhand's 'sale of the century' by western and especially West German companies has been less than initially expected and less than necessary to secure the industrial base of the East German economy. Political volatility and uncertainty about the economic environment appear to be the major reasons behind the low levels of foreign direct investment in Eastern Europe (Business International/ Creditanstalt 1992). By extension, the economic weakness and uncertain prospects of the economies of the former Soviet Union and Eastern Europe helps to explain the lower than expected involvement of West German and foreign companies in acquisitions of East German companies. The principal attraction of East German enterprises in the tradeables sector was the value of their access to markets in the former planned economies.

The Treuhand's success in finding new owners who will exert effective control over management in the core businesses of many of its enterprises is due both to its extensive restructuring and rebundling of assets and to the provision of subsidies. In spite of the availability of employment subsidies in the form of a discount on the price of the enterprise for each job guaranteed, sharp cuts in employment have accompanied virtually all privatizations. The conclusion from this is that even if a general wage subsidy had mitigated East Germany's labour cost disadvantage, complete reliance on early sales to western companies would not have preserved the bulk of employment in East German enterprises. The Treuhand moved too slowly to create or foster the creation of institutions which will deploy to best effect the managerial resources available. The Management KG appears to have the right incentive structure to engage in the strategic restructuring essential for the survival of enterprises for which there appear to be no immediate prospect of sale and which are not slated for closure. However, there appears to be no alternative to lengthier periods of state ownership for some enterprises than the 3 years permitted in the current Management KG structure. Greater use of combined Länder-THA-private sector institutions will be necessary and serious evaluation of these alternatives is a priority.

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