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Finance, Economic Development and the Transition: The East German Case

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Abstract

The role of banks in the transition concerns three issues: the bad loans problem, the role of banks in providing a solution to the problems of corporate governance of privatized enterprises and the access of new enterprises to finance for investment. This paper shows how the combination of early privatization of the banking system plus financial restructuring of enterprises by the Treuhand prevented the development of a 'bad loans' problem in East Germany. The merits of banks as large stakeholders in privatized enterprises has been frequently debated in Eastern Europe. Although the role of banks as owners of non-financial companies in West Germany is frequently exaggerated, there was a widespread public expectation that they would play a considerable role in the restructuring of East German enterprises. We show that their role in acquiring stakes in privatized firms in East Germany has been negligible and suggest reasons for this outcome.

East Germany is characterized by a very high level of investment and the second part of the paper investigates how the financial system can affect the relationship between investment and growth. It has been argued that the inefficiencies of both development and commercial banking in the Italian Mezzogiorno have contributed to the failure there of high levels of investment to translate into growth. The efficiency characteristics of development and commercial banking in Southern Italy are contrasted with those in East Germany.

Considerable attention is given to the extent of competition in commercial banking and to the delegation by the development banks of screening and monitoring activities to the commercial banks, which characterizes the German system. It is argued that the German banking system which has been transferred to East Germany does not suffer from the inefficiencies found in Italy. Evidence is provided for the convergence of the structure of banking in East and West Germany. Nevertheless, in spite of the extensive access of East German firms to development bank finance, evidence is provided that the financial system does not foster investment in intangibles such as in marketing and in R&D. This has serious consequences for those firms which are not owned by Western firms and hence do not have access to the retained earnings of the owner, nor to the ability of the owner to guarantee loans from the banking system.

Zusammenfassung

Die Rolle der Banken im Übergangsprozeß in Mittel- und Osteuropa umfaßt vor allem drei Aspekte: das Problem „fauler Kredite", ihre Rolle bei der Lösung des corporate governance-Problems privatisierter Unternehmen und das Problem des Zugangs neuer Unternehmen zur Finanzierung ihrer Investitionen. In dem Papier wird dargelegt, wie die Kombination von früher Privatisierung des Bankensystems und der Wiederaufbau einer finanziellen Basis in den Unternehmen durch die

Treuhand ein „Faule-Kredite"-Problem in Ostdeutschland verhinderten. Die Verdienste der Banken als große Anteilseigner in privatisierten Unternehmen sind in Osteuropa viel diskutiert worden. Auch wenn die Rolle der Banken als Eigentümer von Unternehmen in Westdeutschland häufig überschätzt wird, gab es eine verbreitete öffentliche Erwartung, daß die Banken eine bedeutende Rolle bei der Umstrukturierung der ostdeutschen Unternehmen spielen würden. In der Analyse wird gezeigt, daß ihre Rolle bei der Übernahme von Anteilen privatisierter Unternehmen in Ostdeutschland sehr gering ist und es wird versucht, die Gründe für diese Entwicklung darzulegen.

In Ostdeutschland herrscht ein hohes Investitionsniveau. Der zweite Teil des Papiers untersucht daher, wie das Finanzsystem die Beziehung zwischen Investitionen und Wachstum beeinflussen kann. Bezogen auf die Entwicklung im Mezzogiorno in Italien wurde häufig argumentiert, Ineffektivitäten der Förder- wie der Geschäftsbanken hätten verhindert, daß ein hohes Investitionsniveau zu Wachstum geführt habe. Die Leistungsmerkmale der Förder- wie der Geschäftsbanken in Süditalien werden mit der Situation in Ostdeutschland kontrastiert. Dabei wird besonderes Augenmerk auf das Ausmaß des Wettbewerbs im Geschäftsbankensektor gelegt sowie auf die Auswahl- und Überwachungsfunktion der Geschäftsbanken, die sie im Auftrag der Förderbanken übernehmen, eine für das deutsche System typische Konstellation.

Die Analyse kommt zu dem Schluß, daß das nach Ostdeutschland übertragene westdeutsche Bankensystem nicht an den Ineffektivitäten leidet, wie sie für Italien's Mezzogiorno festzustellen sind. Die Bankenstruktur in Ostdeutschland hat sich schnell derjenigen in Westdeutschland angenähert. Es ist offensichtlich: Auch wenn jedes Unternehmen in Ostdeutschland problemlosen Zugang zu Förderbanken-Krediten hat, bleibt die Kreditwürdigkeit von Investitionen in immaterielle Aktivitäten wie Marketing oder Forschung und Entwicklung wegen mangelnder Realsicherheiten problematisch. Dies hat ernsthafte Auswirkungen für solche Unternehmen, die nicht westdeutschen Unternehmen gehören und die von daher weder auf thesaurierte Gewinne noch auf die Kreditwürdigkeit ihrer Eigentümer zurückgreifen können.

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0. Introduction

The peculiarities of the East German transition have arisen because of its absorption into an advanced market economy which has meant that some of the key 'transitional' policy problems such as macroeconomic stabilization and the credibility of the reform process have been avoided entirely. It now seems that a number of characteristic problems for transitional economies in Central and Eastern Europe have arisen as a result of the interaction between inherited structures and reform policies in unforeseen ways. One such process involves the financial sector. State owned enterprise managers seek to ease the pressure to restructure arising from the more limited access to state subsidies under reform policies by borrowing from the banks. Banks burdened with a portfolio of bad debt to state-owned enterprises (SOEs) which they presume will be repaid by the state at some time, have little incentive to refuse refinancing or to monitor the use of newly extended credit. This weakens the pressure on state owned enterprises to restructure and at the same time - in the context of tight monetary policy - raises the cost and reduces the access of new private sector firms to credit. The transformation of old activities and the creation of new ones is curtailed.[1]

From the perspective of analyzing the transition, the East German experience is interesting in three ways. The first is the question of how East Germany was able to avoid the feedback loops of the kind described above? Second, because East Germany appears to have skipped this phase in the transition, the problems faced there now may be of relevance to other Eastern European policy makers and facilitate appropriate institutional design at an early stage. Third, in the transition literature on both financial sector reform and corporate governance, reference is often made to the 'German model' or the 'German-Japanese' model (for example, Corbett & Mayer 1991). The experience to date of the German model at work under transitional conditions in East Germany should therefore be informative.

We begin in section 1 by situating the East German case within the debate about financial sector reform in the transition economies. There are three central issues in that debate: (i) the bad loans problem; (ii) banks as part of the solution to the problem of corporate governance of privatized enterprises; and (iii) the access of new enterprises to finance for investment. We argue that for the first two of these issues, East Germany's experience is very different from that typical of the transition. The very limited role of the banks in corporate governance is perhaps surprising in the light of the popular perception of the 'German financial system'. The third one raises the general question of the relationship between the financial system, investment and economic development. We take up this issue in the second and third sections of the paper.

Amongst transition economies, East Germany is quite exceptional in terms of the extent of investment which is occurring there. Is there reason to believe that the financial

[1] As a second example, Aghion-Blanchard (1994) have argued that enterprise restructuring depends on the consent of the insiders in enterprises and this, in turn, is a function of the outside employment opportunities available. If new job creation depends on the tax burden which rises with aggregate unemployment, too high unemployment can stall the transition: high unemployment raises the resistance of insiders to further restructuring and the costs of supporting the unemployed constrain the rate of new job creation.

system will influence the effectiveness of investment in generating growth? In section 2, the theoretical literature linking the financial system to growth both in relation to 'development' banking and commercial banking is briefly surveyed. In section 3, the contribution of the financial system to the persistence of underdevelopment in the Italian Mezzogiorno in spite of very high investment over a long period of time is considered. The hypothesis is put forward that the financial system itself could exacerbate regional economic weakness because it is poorly developed - i.e. backwardness in the financial sector reinforces backwardness in the real sector. There is some empirical support for this hypothesis in the case of the Mezzogiorno. We examine its relevance for East Germany. However, even if the banking sector in East Germany is not backward in comparison to that in West Germany, the German financial system may be unsuited for a transitional economy. East Germany is now an economy of small and medium sized firms where the key issue is whether or not the financial system can promote the formation and growth of such firms.

1. The transition and the financial system: are there lessons from East Germany?

Three themes have dominated the debate about the role of the financial system in the transition in the CEECs (Central and Eastern European countries): the problem of inducing the banks to enforce a hard budget constraint on state-owned enterprises by refusing to refinance bad loans, the potential role of banks in providing effective corporate governance of enterprises and the role of the banks in providing credit to new enterprises.

The bad loans problem

In Eastern Europe, the demand for new credits from the banking system came from enterprises faced, after the start of the reforms, with limited access to state subsidies. New credits will allow enterprises to forego costly restructuring. Banks are willing to supply new credit because an overhang of bad debt reduces their incentive to monitor loans. Once this problem arises, the reform of the banking system and enterprise restructuring are intimately connected.

The problem for the state is that although generous ex ante recapitalization of the banks will increase their incentive to monitor good projects and to spontaneously carve out bad ones, the recapitalization may signal the government's willingness to recapitalize again (Aghion et al. 1994). If this is so, then the positive incentive effects of the ex ante recapitalization are wiped out. This suggests that an effective approach to reform involves a combination of conditional recapitalization and the reduction of the cost of monitoring to the banks by providing direct subsidies to their monitoring activities (Aghion et al. 1994).

Whilst the idea of delegating enterprise restructuring to the banks arises naturally from consideration of the debt-overhang problem, it can also be argued that this is appropriate because the banks are better informed about the enterprises than is the state. However, full delegation of restructuring to the banks may be inefficient as compared with the alternative of carving out the large loss-making enterprises from the balance sheets of the banks and managing them in a state agency. It is shown (Aghion et al. 1994) that full delegation to the banks will dominate carve-out when the banks have a large monitoring advantage (e.g. better information) over the state and/or when there is a sufficiently high penalty to bank managers who refinance bad projects.

This model of the role of banks and the state in restructuring enterprises helps to clarify the East German case. In East Germany, action was taken at the very beginning of the transition to eliminate the flow of soft credit. Firstly, the banking system was reformed before the enterprise sector was restructured. Even before the Economic and Monetary Union (July 1990) the Bundesbank had in practice taken control of the East German state banking system. The Deutsche Kreditbank, the arm of the former State Bank of the GDR (German Democratic Republic) comprising the branch network and virtually all enterprise accounts, came under the control of Deutsche Bank and Dresdner Bank immediately after Monetary Union. The stock of 'old loans' accrued under the GDR state banking system was isolated in the balance sheet of the Kreditbank, so that Deutsche Bank and Dresdner Bank acquired a branch network and ongoing banking relationships with corporate customers, but no potentially bad enterprise debt. Secondly, the privatisation agency the Treuhandanstalt (THA) took effective control of the state enterprise sector. Access to bank credit by SOEs was almost impossible without the loan being guaranteed by the Treuhand. Although in the early phase of the operation of the THA, when output in SOEs contracted rapidly and there was a danger of widespread collapse through bankruptcy, guarantees were granted across the board without any evaluation of the risk (Carlin & Mayer 1992), on the whole the control over the granting of Treuhand guarantees was effective.

Indeed, the East German case can perhaps best be thought of as representing the opposite extreme from that of full delegation of restructuring to the banks. In East Germany, there was full carve-out of enterprises from the banking system and the centralization of restructuring in a state agency. Taking as given the rapid increase in product wages in East Germany combined with the collapse of export markets in Eastern Europe and the consequent unprofitability of the great majority of enterprises, full carve-out may have been efficient. This left the banks to concentrate on rapidly modernizing the technical operation of the payments system, building up their personal sector business and establishing a client base in the new private and newly privatized enterprises. Such an argument depends both on the depth of the profitability crisis in the enterprise sector in East Germany (and hence on the extent of the diversion of bank resources which bank-led restructuring would have entailed), on the possible complementarities and economies of scale in restructuring available to a state agency (Carlin & Mayer 1992) and on the existence of an effective budget constraint for the state agency.

The corporate governance problem and the banks

In contrast to elsewhere in the CEECs, the existence of 'good' banks combined with the close control by the Treuhand of access to state subsidies and to inter-enterprise loans, strictly circumscribed the power of the insiders in the enterprises even before they were privatized. In the pre-privatization phase, the impact of the hard budget constraint in inducing managers to raise efficiency was supplemented by other mechanisms of corporate governance introduced by the Treuhand. In particular, large enterprises operated with supervisory boards dominated by West Germans which were charged with overseeing managers' behaviour. The effective control, pre-privatization, of enterprises by employees and managers, which is common in Eastern Europe, was atypical in East Germany (Carlin and Mayer 1992, von Thadden 1994).

West German bank representation on supervisory boards of Treuhand firms and in the role of chairman was extensive - at a level slightly above their representation on the boards of West German companies (Carlin & Mayer 1992). This is the route through

which a measure of delegation of restructuring to bank personnel occurred in East Germany - but it is probably best thought of as the provision of subsidized services by the banks to the state, rather than as true delegation to the banks. It was emphasized in several interviews with bankers that they believed bankers to have no comparative advantage in restructuring. Finance was seen as a lower-ranking issue as compared with industry-knowledge and contacts. Nevertheless, from the perspective of the Treuhand, the participation of bankers on supervisory boards helped to control the problems caused by the potential conflict of interest arising when a supervisory board member of an East German enterprise came from a West German company competing in the same product market.

With privatization, a quite distinctive ownership and control structure has developed in East Germany. Few large firms remain and the great majority of those with over 100 employees have a single owner or majority shareholder. Dispersed ownership is virtually absent as East Germany has become an economy comprised of subsidiaries of West German (and to a lesser extent foreign) companies plus medium-sized and small enterprises which are owner-managed. As equity holders in privatized enterprises, the banks have played a negligible role in East Germany. Table 1 gives a survey of bank equity stakes in East Germany as reported by the respective industry associations for the commercial banking and savings banks sectors.[2] The 189 acquisitions of East German companies by West German banks reported by the Bundesverband deutscher Banken amount to 3% of Treuhand privatisations at that time. It should be borne in mind that the reported acquisition figures include acquisitions in the financial sector. Of the acquisitions by banks reported to the Bundeskartellamt, the German monopolies and mergers authority, 40% were horizontal acquisitions within the financial sector.[3]

[2] The precise extent of bank equity holdings in East Germany is hard to quantify. This is because East German firms that are possible acquisition targets tend to be small and ownership data on small firms is hard to collect. For example, the 'wer gehört zu wem' company handbook, which lists the ownership structures of 13000 East and West German companies with own capital of more than DM 1 million, shows no East German holdings of the Deutsche Bank or of Deutsche Bank subsidiaries in East Germany, although Deutsche Bank is probably the biggest single bank investor in East Germany (see Deeg, 1994, p. 24).

[3] Note however that the Kartellamt only registers acquisitions of more than 25 *% of* shares where the joint turnover of the acquirer and the acquired exceeds DM 500 Mio (for banks: 10% of balance sheet total). The Kartellamt data is thus biased against minority stakes taken out by banks. The Kartellamt data does however register all majority acquisitions of big and medium sized banks. 2% of all acquisitions in mining, manufacturing and construction registered with the Kartellamt by the end of 1992 were majority acquisitions by banks.

Table 1. Bank equity stakes in East Germany

Source	Equity holders	Acquisitions end 1993 number	Acquisitions end 1993 value (DM mio.)	Comment
Bundesverband deutscher Banken (BdB)	Private commercial banks and their subsidiaries	189	583	The private banks assessed 2362 possible acquisition targets in East Germany. Total employment in the 189 acquired firms: 24612 (end 1993). The reported acquisitions include acquisitions in manufacturing as well as financial sector acquisitions.
Deutscher Sparkassen- und Giroverband	Landesbanken		150	Included in the DM 150 mio are: DM 18 mio. participation in 'special regional investment funds promoting medium sized companies' (mittelständische Kapitalbeteiligungges.); more than DM 40 mio. invested in 10 East German manufacturing companies, where at least one of the holdings is known to be a 100% stake.
		Acquisitions. end 1992		
Bundeskartellamt	West German or foreign banks	42		The Kartellamt registers all acquisitions where joint turnover of the acquirer and the acquired exceeds DM 500 Mio (for banks: 10% of balance sheet total). Of the 42 cases 18 were acquisitions in the financial sector. 3 of service firms. 10 in construction and the rest in manufacturing.

Memorandum item: Number of fully privatized Treuhand companies, end 1993:5833

Source: Bundesverband deutscher Banken. 'Die Privaten Banken in den neuen Bundesländern'. 1994; Deutscher Sparkassen- und Giroverband. 'Leistungen der Sparkassenorganisation in den neuen Bundesländern'. 1994; T. Frisch. 'Unternehmenszusammenschlüsse in den neuen Bundesländern. HWWA-Report Nr. 119. 1993.

In Hungary, banks have emerged as equity holders through debt for equity swaps by enterprises in financial distress. This route was excluded in East Germany for the reasons discussed above - i.e. the initial separation of old enterprise debts from the banks and the rapid reform of the banking system. The German government however actively encouraged the banks to acquire Treuhand companies. As part of the government's 'solidarity pact'-initiative the banks announced that they would invest DM 1 bn in East German companies, where the private commercial banks and the savings banks sector were to invest DM 400 mio. each, with the remaining DM 200 mio. to be invested by the cooperative banks. The THA was charged with providing a list of possible acquisition targets to the banks. However, little of the investment promised by the banks has actually come through. The BNL investment fund set up by the commercial banks had made four acquisitions by June 1994. The Sparkassen assessed 180 THA companies and acquired stakes in three.

The view that German banks hold large stakes in non-financial enterprises in West German is frequently exaggerated. For example, the number of firms in which the private banks, directly or indirectly, held stakes of more than 25% (i.e. a blocking minority) fell from 86 to 45 between 1976 and 1986 (quoted in Deeg 1993, p. 157). During the 1970s

and 1980s, it was the local savings banks and their regional partner banks (the Landesbanken) that played an increasingly important role.[4] The activities of the Landesbanken in purchasing equity in non-financial companies and in industrial restructuring were often closely coordinated by the regional government in a broader regional or industrial promotion programme.

It is interesting to look at why the private banks have not taken a larger ownership role in East Germany. As noted above, interviews conducted early in the transition with West German bankers involved in the East revealed their belief that the first best solution for an East German enterprise was to find a Western 'partner' able to supply the necessary *managerial* skills to turn the enterprise around. The assumption (by the bankers and by the Treuhand as well, where there were no commercial bankers on its own management or supervisory board) was that *ownership* by a western company in the same industry was the most efficient method of upgrading the human and physical resources of the eastern enterprise. Arguments based on asymmetric information in the market for managers have been used to justify this assumption (Dyck 92). A bank holding company would, the argument goes, be left with hiring the worst managers (from the west) and would therefore be less efficient than a western company in turning around an eastern enterprise.

This interpretation suggests that banks would be least reluctant to acquire equity in Eastern enterprises which are engaged in activities in which the least restructuring was required and in which there was the least gap between the competences of eastern and western managers, including knowledge of markets. Perhaps a good example of this is the decision of the Deutsche Industrie Holding (a holding company established by the Deutsche Bank to purchase East German enterprises) to concentrate on acquiring enterprises in the construction industry. Another indication is that of the four companies in the portfolio of the BNL investment fund only two were actually acquired directly from the Treuhand. The BNL bought one company that had already been privatized but experienced financial difficulties and took a minority stake in a further privatized firm which needed to increase its own capital.

The East German solution to the problem of corporate governance through a domestic version of massive foreign direct investment is unavailable elsewhere in Eastern Europe. Moreover, it is clear that even in East Germany, there were insufficient investors from the West prepared to purchase Treuhand firms in spite of the availability of very generous subsidies for doing so. To put it another way, the Treuhand sought restructuring plans for its enterprises and was prepared to pay for them: in some cases, there were no bids submitted. It is in situations of this kind that the German case comes closest to Eastern Europe: where foreign ownership is unavailable, should shares in SOEs be concentrated in the hands of a bank, some other kind of financial institution such as a mutual fund, floated on the stock exchange or distributed through a voucher system?

In spite of considerable political pressure and financial inducements, as noted above, the banks have taken up rather few of the enterprises for which western buyers could not be found. It has therefore been left to the state in various guises to undertake the restructuring of the remaining enterprises which were too large for management buy

[4] For example in 1990, WestLB, the Landesbank in the state of North Rhine Westphalia, increased its equity stakes in firms by 12 which took the total value of its holdings to a level similar to that of the Dresdner or the Commerzbank (Deeg 1992, p. 299).

outs, or to decide on their closure (see Carlin 1994). East Germany provides no model for substantial bank ownership of non-financial enterprises in the transition.

Finance for new enterprises

A common problem in Eastern Europe is the lack of availability of credit to newly established private sector firms. These may be start-up firms or small MBOs which have separated from SOEs. In both cases, severe credit rationing and very high real interest rates are prevalent. Banks demand high and very liquid collateral from private sector firms whilst at the same time extending soft credits to large SOEs.

Dittus provides evidence of widespread credit rationing by the banks in Poland, Hungary and Czechoslovakia (see Dittus 1994). In 1991 and 1992 real interest rates ranged from 15-30% in Poland and 15-20% in Hungary, while they were lower in Czechoslovakia (5-10%). In 1991 enterprise borrowing increased at a time when interest rates were rising, while in 1992, when real interest remained high but more or less stable, lending to enterprises contracted dramatically (in Hungary for example banks lending to enterprises fell from 5.2% of GDP in 1991 to 0.4% of GDP in 1992). This credit crunch seems to have largely been the result of the introduction of new banking laws and regulations which hardened the banks' budget constraint.

Private firms seem to have suffered in two ways from the weak financial position of the banks due to the overhang of bad debt discussed above. Before the credit crunch SOEs were crowding out private firms - their soft budget constraint enabled SOEs to increase borrowing even when interest rates were very high and rising. After new regulation hardened the budget constraints of the banks, banks were rationing credit to both SOEs and private firms. There are reasons to believe that the effect of credit rationing on the private sector is more severe than on state firms. Firstly, newly established private firms are typically short of collateral. Furthermore credit rationing occurs when asymmetric information between the borrower and the lender makes it impossible for the bank to accurately assess the quality of a loan applicant (see section 2 below). Even in an advanced banking system newly established firms are more likely to be subject to credit rationing because the bank can not make inferences from the firm's previous banking history. In Eastern Europe facilities for the screening of loans applicants are poorly developed. This makes it even more likely that credit is rationed to newly established firms in transition economies.

Section 3 below discusses how the problems of credit rationing and providing finance to new enterprises have been addressed in East Germany. The institutional characteristics of the banking system (transplanted from Germany) are contrasted with those of another European problem region (the Italian Mezzogiorno) .

2. Finance, investment and growth

One of the most striking differences between the former East Germany and other transitional economies in Eastern Europe is the level of investment taking place. The insights of the new growth theory have been used to suggest that such high investment could lead to much more rapid convergence of East German to West German levels of productivity than the standard Barro convergence process based on the Solow model would suggest (Burda & Funke 1994). However, a less optimistic scenario is provided by the

failure of the Italian Mezzogiorno to converge to the Centre-North in spite of almost half a century of high investment levels. In a detailed empirical study, Faini et al. (1993) hypothesize that an important causal factor behind the Mezzogiorno combination of high investment with persistent failure of regional development is the weakness in the financial system in the South. Specifically, they point to the mechanisms for the allocation of finance to investment projects and the subsequent monitoring of economic activities.

To the standard result of the new growth theory that investment has a much more powerful effect on growth (compared with the Solow model), King and Levine (1994) add a prior relationship: that the financial system can powerfully affect investment. In their growth model, financial institutions exert their influence not be affecting the rate of physical capital accumulation, but by evaluating, managing and funding the entrepreneurial activity that leads to productivity growth. This may provide a useful way of conceptualizing the Mezzogiorno paradox of a high level of physical investment (leading to a capital intensity much higher than that in the rest of the country) combined with low total factor productivity growth.

The 'financial system' can be drawn sufficiently widely to include financial intermediation, the establishment and exercise of property rights, bankruptcy procedures and the structure of corporate governance. However, a narrower focus will be adopted here. We want to concentrate on the banking system as a source of external finance for investment. To guide the theoretical discussion, it is useful to outline the main players in the banking system. In both the Italian and German cases, we find three relevant types of bank. We return in section 3 to the differences between the systems but for now, a simple set-up only is required. We assume that there are (i) local banks, defined by the regulation that they must confine their loans activity to a local geographical area, (ii) the local branches of the national commercial banks (i.e. bank headquarters are in the 'developed' region) and (iii) special long-term lending banks. For simplicity, we refer to local banks, commercial bank branches (cb-branches), and development banks.

Development banks

It is simplest to make two pair-wise comparisons. We start by collapsing the first two categories and focusing on the comparison between commercial and development banks. Is there any theoretical justification for having development banks? A useful model is that of Dewatripont-Maskin (1994) who highlight the circumstances under which the 'short-termism' promoted by a decentralized commercial bank structure is nevertheless socially efficient. There are 'good' and 'bad' entrepreneurs and the former can choose either a quick project which is completed in one period or a slow one that takes two. The bad entrepreneur's project takes two periods to complete and is assumed to be poor. The type of project is only revealed in the period in which it is completed. They begin from the problem of how the banking system can impose a hard budget constraint on borrowers: i.e. how can the banks credibly threaten not to refinance poor projects even though the refinancing may be worthwhile once the fixed costs of the project have been incurred. The threat to refuse refinancing is made credible in a decentralized banking system in which an individual bank lacks the funds to refinance. Once a second bank is required to refinance, and if costly monitoring of borrowers is necessary, then the first bank will fear that the returns to monitoring will be shared with the second bank and hence will have little incentive to monitor in the first place. This undermines the viability of a project requiring refinance and creates an incentive for entrepreneurs to choose only quick projects.

D-M go on to show that although the equilibrium with small banks and only good projects being financed always exists, it is only always socially efficient when no long-run projects are socially worthwhile. If long-term projects are sufficiently profitable to enable the bank to cover its losses on poor ones then there may be a justification for intervention in financial intermediation through a development bank to eliminate the 'short-termist' equilibrium. In the D-M model, this requires a sufficiently high proportion of 'good' entrepreneurs and a sufficiently high return on (good) slow projects compared to (good) quick ones. A development bank (or a sufficiently centralized banking system) can overcome the externality in monitoring and induce good entrepreneurs to mount slow projects. A development bank can also overcome the different problem raised by von Thadden (1994b) that entrepreneurs can be deterred from undertaking long term projects through the fear that the bank may exploit the borrower at the refinancing stage.

In the D-M model, the development bank acts just like a bank and as long as the proportion of good entrepreneurs is high enough and slow projects are profitable enough, a development bank is justified. On these assumptions, the soft budget constraint exists in the sense that poor projects are financed, but this is socially worthwhile. In section 3, we confront this model with the operation of development banks in the Mezzogiorno and in Germany.

Local banks and the branches of commercial banks

We turn to the second feature of the banking system by ignoring development banks and focusing on local banks and the local branches of commercial banks headquartered elsewhere (cb-branches). Is there any theoretical justification for the existence of local banks? How can the continued existence of local banks be explained (assuming the geographical concentration of their loans is regulated but there are no constraints on the entry of cb-branches) and is this socially justified? We assume that there are also two types of firm: local firms which are small and rely on the banking system to finance investment and subsidiaries of firms headquartered in the developed region. The second type of firm is large and has access to internal funds from the parent company in addition to credit at competitive rates from the cb-branches.

Information problems appear central to the coexistence of local banks and cb-branches. Stiglitz and Weiss (1981) show how the inability of banks to determine the risk characteristics of loan applicants in ex ante screening can lead to credit rationing. A special case of the S-W model can give an indication of how two different types of banks could emerge. S-W argue that in the credit market the interest rate may fail as a screening device when a bank cannot distinguish between different types of privately informed credit applicants. The bank finds that increasing the interest rate on loans not only increases interest receipts but also increases the average riskiness of its loan portfolio and thus expected losses due to bad loans. This is because an interest rate increase drives out the safe borrowers before it induces exit by the risky ones. The bank sets its interest rate where the trade-off between increased interest receipts and higher riskiness of the loan portfolio is optimal.

In equilibrium, all banks (assumed to be identical) set the same interest rate but the 'bank-optimal' rate need not clear the market. It is possible that banks offer credit at a price at which demand exceeds supply: credit is rationed. S-W point to the special case where a two-interest rate equilibrium can exist, with a low interest attracting both safe and risky applicants and where there is excess demand, and a higher interest rate which attracts only residual risky applicants. This could explain the co-existence of local banks

and cb-branches even in a framework which allows perfect competition between banks, with the cb-branches lending at the lower interest rate and where demand for cheap cb-branch credit exceeds supply and the local banks lending at the higher rate.

In the S-W model, all banks are identical in their ability to screen applicants. Faini et al. however suggest that local banks may have better access to information on local firms than cb-branches. This informational advantage shelters local banks from outside competition: as cb-branches practice credit rationing (taking their ability to screen loan applicants as given) local banks can exert monopoly power over those firms rejected by the cb-branches. Sharpe (1990) argues that the bank's ability to learn about their customers in the course of the lending relationship allows them to capture some of the rents generated by their older customers. The reason for this monopoly power is an adverse selection problem: a firm that is successful is recognized as such by the bank it is currently banking with but cannot adequately signal its superior performance to other banks. This makes it difficult for successful firms to switch banks, because among those firms that try to change banks are also those unsuccessful firms that have been rejected by their original bank as a bad credit risk. Bank inability to adequately assess new loan applicants thus reduces competition and successful firms are 'informationally captured' (Sharpe 1990).

In the case where local banks have informational advantages over cb-branches and are protected from competition from other local banks by regulation, local banks can informationally capture local firms without interbank competition driving profits to zero - local banks enjoy monopoly power in the long run (with the monopoly rents most likely being absorbed in higher operating costs).

3. Regional financial structures and economic development: Italy and Germany

To claim that the financial system contributes to, rather than simply reproduces the weakness of economic development in a region, one could show that the financial sector is different from elsewhere in the country. This difference could be due to regulation or it could arise endogenously. Alternatively, it could be argued that a common 'national' financial system is especially unsuited to the needs of the weak region. For example, in relation to labour rather than financial markets, the argument has frequently been made that East Germany has suffered severely from the transfer of inappropriate West German labour market institutions such as centralized wage-setting. In this section, we consider both alternatives.

In section 3.1, we refer to the detailed empirical study by Faini et al. which examines the first hypothesis for Italy: they argue that the specific backwardness of the financial sector in the Mezzogiorno serves to exacerbate backwardness in the non-financial sector. The policy implication is clear: banking sector reform would be necessary (but presumably not sufficient) to foster economic development in the South.

In terms of methodology, they seek first to establish the difference between the financial system in the North-Centre and the South - both in terms of short-term and long-term lending - and second, to find statistical evidence for the effect of this difference on the choice and implementation of investment projects in the South.

In section 3.2, before turning to East Germany, we compare the West German banking system with the Italian one as it relates to regional development. The West

German systems of both development and commercial banking including the role of local banks are shown to be very different from those in Italy. In Germany, the operation of development banks is tied in closely with the highly competitive commercial banking structure - comprising both cb-branches and local banks. It is argued that this set up is likely to avoid the problems plaguing the financial system in the Mezzogiorno. In the following section, we turn to the introduction of the West German system in East Germany. This requires an examination of the commercial banks and their activities in the East (the cb-branches), the local banks (savings and cooperative banks and their regional associations) and the 'development[1] banks. Finally, in section 3.4, the ability of the German 'national' financial system to address the specific problems faced by the enterprise sector arising from the transition is evaluated.

3.1 The Italian Mezzogiorno: the results of Faini et al. (1993)

Faini et al (1993) seek to establish financial sector backwardness for Southern Italy in relation to both 'development' and commercial banking. In Italy as a whole, there has been a clear separation between long and short-term lending. Until recently banks have been prevented by regulation from operating on either the asset or liability side with maturities greater than 18 months (Faini p. 169). All long term lending has been done by special purpose public sector institutions (SCIs) which operate in different geographical areas. In the South, three SCIs operate and all are majority owned by the public sector Mezzogiorno Development Agency. Long-term lending in the south is therefore tied intimately to the regional development bureaucracy. Interest rates on long-term loans are fixed below market rates by the government.

The institutions for commercial banking in the south also differ from those in the Centre-north. The South is characterized by local banks which are much smaller than those in the north - often they have only one or two branches. The medium-sized banks common in the Centre-North are absent. Bank loans to firms in the South are therefore divided between the small local banks and the branches of the Northern commercial banks. The local banks account for two-thirds of all lending in the South; cb-branches account for the remainder. The customers of local and cb-branches differ: about one half of the lending carried out by cb-branches comprises loans to the subsidiaries of companies which are headquartered in the Centre-North. By contrast, only one-fifth of the loans business of local banks is with the subsidiaries. The bulk of their business is with the predominantly small companies based in the South.

(i) The 'development' banks

The theoretical literature surveyed in section 2 suggests reasons why intervention may be necessary to overcome the 'short-termism' of a commercial banking system. In the Italian case, we find such intervention with all long-term lending occuring through the SCIs. This would be justified from the perspective of social efficiency if there were a large proportion of good entrepreneurs and the return on long-term projects was sufficiently large that the returns on the slow projects proposed by the good entrepreneurs would more than pay for the poor projects financed.

Faini et al find that the southern SCIs are different from those in the Centre-North. Specifically, they find that the Southern SCIs have higher costs, lower productivity and a higher share of bad loans than the Northern ones. It appears that the inefficiency of the Southern SCIs arises at several points. At the project evaluation stage, it is suggested that

risk-aversion by the bureaucrats in the SCI operates to create a bias away from high risk projects, even if they promise a high return. The reason is risk aversion on the part of the officials in the face of administratively set ceilings on interest rates.

During the implementation stage, the soft budget constraint described by Dewatripont-Maskin would come into play. Even if the SCIs operated as banks, it may be worthwhile refinancing poorly performing projects given the sunk costs. To the extent that the SCIs have inadequate institutional structures for monitoring the performance of loans, it is possible to explain the simultaneous presence of the exclusion from financing of innovative high risk projects and the presence of a high share of bad loans. Faini et al. look at a sample of more than 2,000 small firms in the North and South and estimate the determinants of long term loans. They find that the only variable to affect long-term loans for which the coefficient was different as between North and South was risk. Risk is negatively correlated with long-term loans throughout and the coefficient is significantly larger for the Southern firms (p. 192).

(ii) The commercial banks: local banks and cb-branches

In spite of a uniform regulatory environment across the country, it appears that there is a systematic difference between the commercial banking conditions in the South and in the rest of the country. The very small, very local banks that dominate lending to the local firms in the south appear to be protected from effective competition from the cb-branches by informational characteristics of the environment through the mechanism described in section 2.

These banks have higher operating costs, worse loan quality and lower profits than the cb-branches. Whilst paying the same interest rate on deposits, such banks charge some 2% points higher on loans than is charged by cb-branches. Faini et al find that whilst about half the interest differential is accounted for by firm characteristics, the other half is due to bank characteristics (p. 178). Holding firm characteristics constant, local banks charge higher rates and this is virtually entirely accounted for by the higher operating costs of local banks.

It appears that cb-branches provide ineffective competition for the local banks and hence allow high costs to persist. A possible explanation for this - as suggested in section 2 - is that considerable information is required to screen and monitor local firms. Cb-branches do not have such information and this results in the rationing of credit to local firms. Faini et al find that in short-term borrowing as well as long-term, risky Southern firms find it more difficult than those in the North to secure credit (p. 194). To provide further evidence on credit rationing to risky small firms, they estimate an investment function for a set of small firms in the south which includes a cash-flow term when firms are risky. The coefficient is significant and they conclude that 'high-risk firms in the Mezzogiorno are endowed with profitable investment projects, which sometimes cannot be undertaken because of lack of internal funds, (p. 195).

In summary, the Faini evidence suggests that the development banks in the Mezzogiorno are unlikely to satisfy the conditions required by D-M for their efficiency. The benefits of over-coming short-termism appear to be outweighed by the prevalence of a soft-budget constraint combined with a lack of incentive for the SCIs to promote promising high risk projects. In terms of commercial banking, a situation appears to prevail where good local firms are informationally captured by inefficient local banks. Cb-branches engage in credit rationing and promising local entrepreneurs are denied

access to credit.

Some scepticism has been raised concerning the *size* of the effects identified by Faini et al.: could such small, albeit statistically significant effects, really account for much of the persistent North-South gap in economic development? In their defence it is clear that they do not claim that financial institutions are solely responsible for the problem: they point to a series of likely contributory factors including the role of uniform wages across the country irrespective of productivity differences and the weaker rule of law in the South. Their results are certainly supportive of the notion that in a situation in which there is no capital shortage in aggregate, the financial system contributes both to the misallocation of funds as between projects/ entrepreneurs and to the inefficient use of investment funds.

3.2 West German banks and regional economic development

Our knowledge of the comparative efficiency or growth characteristics of different institutional arrangements is very poor. The German financial system has traditionally been accorded an important contributory role in the successful late industrialization of Germany. Recent debate about the comparative merits of the so-called German-Japanese compared with the Anglo-American financial systems remains unresolved both at the level of theory and in comparative applied analysis.

Much of the debate about the role of the banks in the 'German model[1] focuses on the large commercial banks and the largest non-financial firms where the issue of corporate governance arises (e.g. Edwards and Fischer 1994; Elston 1993). This focus is largely irrelevant to East Germany where there are few large firms and those that remain are tightly controlled by a western parent company (see section 1 above). Of greater relevance are the issues raised in the comparison with the Mezzogiorno where the interaction between the financial system and a regional economy comprising small local firms and subsidiaries is central. The Mezzogiorno displays persistent segmentation between the two parts of the southern Italian economy with small local firms failing to grow and with the subsidiaries failing to become rooted by developing effective supplier networks in the regional economy. Similarly, the success of East German integration with the West depends on the growth of the new small and medium-sized firm sector (SMEs), comprising both start-ups and MBO-privatizations, and the development of economic links to the subsidiaries. It is therefore the less widely discussed side of the German financial system as it relates to the provision of external finance to SMEs on which we must concentrate.

We can identify the same types of players in the financial system in Germany and Italy - there are development banks and commercial banks comprising local banks and cb-branches. However, there are institutional differences which may be significant in judging the likely impact of the financial system on East German development. Some empirical support for the positive impact of the German financial system on regional development in West Germany in the 1970s and 1980s comes from detailed case studies (Deeg 1992). Recent work by Vitols (1994) suggests that the German financial system may help to explain the puzzle of the persistence of a larger SME sector in West Germany than is typical of advanced countries. This is a puzzle because German small and medium sized enterprises, unlike those elsewhere, do not have the advantage, as compared to large firms, of a much more flexible labour market with lower wages and less regulation. East Germany is an interesting test case for this argument: gross labour market inflexibility

was imposed and the question is whether high investment financed in large part by the state (which in aggregate prevents high wages from acting as a constraint on investment) and the financial system can combine to produce self-sustaining development. Retentions are not available in East German companies to finance investment. Subsidized finance is however available through the development banks but the question is how efficiently can the banking system allocate that finance. Of course, it is too early for an empirical evaluation of the effectiveness of the banking system in East Germany. It is possible however to use the theoretical ideas introduced in section 2 to identify the relevant structural features of the system as it operates in West Germany and to document its implementation in the East (sees 3.3 and 3.4).

Commercial banks: local banks and cb-branches

The commercial banking sector in West Germany comprises three groups: (i) the major private commercial banks (Deutsche Bank, Dresdner Bank, Commerzbank) with extensive national branch networks; (ii) the savings banks and (iii) the cooperative banks. Both the savings and the cooperative banks are local banks in the sense that the geographical area in which they are able to extend loans is typically limited but they share features which distinguish them from the local banks in Italy. In particular, individual savings and cooperative banks belong to a regional association, and the regional association in turn belongs to a national association. This structure enables local banks to take advantage of economies of scale in payments systems and economies of scope in the provision of financial services. German banking regulation applies to all three sectors and permits all types of banks to engage in universal banking activities. By virtue of their ownership, the savings banks are required to take account of the economic development needs of the local area. (The savings banks are owned by municipalities and the Landesbanken by the states and the regional savings associations.)

Traditionally there was a division of labour between the different banking groups and competition was limited. The big three banks concentrated on loans to large companies and at shorter maturities as compared with the savings and cooperative banks -which concentrated more on loans to SMEs at longer maturities. However, as documented by Deeg (1992) this segmentation has diminished over the course of the 1980s. Competition between the three banking groups especially for SME customers has intensified. The big three banks were increasingly forced to broaden their customer base as large firms loosened their ties with banks through increased access to international financial markets and to internal sources of finance - including reinvested pension funds. In order to gain business from SMEs, the big banks had to improve their information gathering facilities at the local level. The Landesbanken became more involved in lending to large firms and in restructuring, including taking equity stakes, in enterprises which were very important to the regional economy.[5] Savings and cooperative banks built up consultancy services at the regional level and sought to improve their provision of export finance and other more specialized financial services.

Vigorous group competition served to improve the access of SMEs in West Germany to external finance and appears to have improved the ability of the financial

[5] See Deeg 1992, chapter 6 for a detailed examination of the role of WestLB in the state of North Rhine Westphalia.

system to contribute to regional economic development. The contrast between the operation of commercial banking in the regions of West Germany and in Southern Italy therefore widened in the period prior to German reunification.

Development banks

The most important development bank in Germany is the Kreditanstalt für Wiederaufbau which was established explicitly to deal with the problem of short-termism on the part of the big three banks after the Second World War. In a number of basic industries including steel, energy and coal, large-scale investment was required. However the companies in these industries were prevented from rebuilding their internal sources of funds for investment because of the continuation of price controls. The government saw the usefulness of the Marshall Aid (ERP) Counterpart Funds for this purpose (as a way of directing investment to priority projects requiring long-term finance without appearing dirigiste) and established the KfW to administer the loans. The role of the KfW in this early period fits the case addressed by Dewatripont and Maskin - i.e. there were socially worthwhile long-term investment projects which required the intervention of a development bank in order to secure the necessary external finance.

Although in its early years, the KfW was directly involved in making loans to specific industries, after the reconstruction period, it moved to a different model of operation. An important feature of the way the KfW subsequently operated which is in sharp contrast to the SCIs in the Mezzogiorno and has implications for the evaluation of the role of the KfW in East Germany, is its relationship to the German commercial banking system. The KfW makes available fixed interest long term finance to small and medium sized enterprises for whom access to such finance would typically be impossible. The method is simple: the KfW sells bonds on the international capital market and these funds are made available to small and medium sized companies at a fixed interest rate for periods of up to 20 years (for a loan for a commercial building). Any application for a long-term loan from the KfW is made through the house bank of the applicant (be it a cb-branch or a local bank). The house bank evaluates the loan application knowing that if the loan is granted, the house bank bears the default risk but is spared the interest rate risk since the loan is refinanced through the KfW.

With small and medium-sized enterprises and with the two-tier structure of local banks in Germany, the problem that is solved by a development bank in the D-M model does not readily arise. In the D-M model, the need for a development bank arises when the commercial banking system is sufficiently decentralized such that a single bank may not be able to refinance a 'slow' project. The externalities in monitoring available to another bank which may have to refinance the project deters the first bank from lending to the 'slow' project. The fact that savings and cooperative banks belong to regional associations which are able to pool resources permits long-term lending to occur without the externality problem. In this institutional context, the role of the KfW is different. It seeks to address the Stiglitz-Weiss credit rationing problem facing small and medium-sized enterprises. The KfW activities described above is a method of increasing the access of SMEs to long-term funds through which an incentive is created for the screening of loan applicants and the monitoring of project implementation by the house bank. Although a really convincing study is yet to be done, there is some evidence (e.g. Harm 1991 pp.41-2) that there is little public subsidy involved in the KfW financing of investment.

There is a second special credit institution, the Deutsche Ausgleichsbank (DtA) which was established to compensate the post-war refugees in West Germany and help

them to set up their own businesses. Later, its focus was shifted toward a general concern with providing long-term finance for business start-ups. The DtA operates through the house bank on the same principles as the KfW in the sense that a multiple screening process for applicants takes place. Studies of the effectiveness of the DtA start-up programmes in West Germany have shown that recipients are more successful than the average start-up firm (Brüderl et al. 1993). In a well-designed study of 6,000 company start-ups in Bavaria, Brüderl et al. found that recipients of DtA and KfW credit had above average chances of survival although they did not grow faster in terms of turnover or employment than the average firm. The firms receiving support tended to be those with more limited equity. This study shows that DtA support is secured by the start-ups for which it was intended and that the screening and monitoring process is effective in the sense that it is at least as good as that for own-bank credit.

There is one further institutional link in the chain in West Germany to reduce credit rationing to firms with insufficient collateral: the guarantee banks. These were established in the 1950s to deal specifically with the problem (now so prevalent in East Germany) that few people wishing to start a business had the necessary collateral with which to secure bank finance (Harms 1991).[6] When a would-be entrepreneur applies at their house bank for a loan and is told that the loan will only be granted if it is covered by the guarantee bank, the application is considered by a committee of the guarantee bank comprising both bankers and experts from trade and industry (through the chambers and industrial associations).

3.3 The forwardness of the banking sector in East Germany

Although the financial sector was seen as an unambiguous growth point for the transitional economies, it is unclear that its development in Eastern Europe has proceeded ahead of that of the real sector. East Germany is the exception, with the reorganisation of 'development' banking and commercial banking (cb-branches and local banks) occurring rapidly between 1990 and 1991. Two factors facilitated the speed of the transformation of the banking sector which were unavailable in other transitional economies: The willingness of western banks to become involved in retail banking on a large scale (in the case of the private commercial banks) and the 'altruistic' transfer of knowledge (in the case of the savings and cooperative banks). Both will be discussed below. Although foreign banks have established a presence in Eastern European countries (where some have even acquired stakes in local banks), activities of foreign banks have been geared towards niche markets such as merchant banking and support functions for foreign multi-nationals rather than the domestic retail banking market. Schemes to provide western management

[6] These non-profit making banks are owned roughly half and half by (i) banks - the regional associations of the saving and cooperative banks and the private banks and (ii) local chambers of commerce and business associations. The federal and state governments provide long term loans to the banks. The guarantee banks cover up to 80% of the loans guaranteed through them; in him, the government reinsures (70%) of the losses of the guarantee banks (Harms 1991).

expertise to banks in CEECs exist[7], but sometimes it has proved difficult to provide western experts with the right incentives to impart their knowledge.

Wagner's statement 'The goal of quickly constructing an efficient banking system that corresponds to Western standards in East Germany has largely been reached' (1993, p. 1010) is uncontroversial. In terms of development banking, the key elements of the West German institutional structure were established in East Germany by the middle of 1991 (Seidel, 1992, p. 600). In contrast to Southern Italy where separate development banks for the south were set up, in East Germany, the scope of the West German institutions was extended to include East Germany.

During the post-war period of central planning, the local branches of the savings and commercial banks survived in the GDR but were down-graded into deposit-taking institutions. Credit allocation was subsumed in the planning process with the accounting arrangements in the hands of the branches of the Staatsbank. There was a sharp separation between deposit taking and enterprise account-keeping institutions. The savings banks held 81% of deposits whilst 80% of loans were administered by the branches of the Staatsbank (Denning 1991). In order to reproduce the West German banking structure, it was necessary to reintroduce the commercial banks (cb-branches) and to rebuild the savings and cooperative banking sectors into true universal banks.

The reintroduction of the cb-branches took place initially through the formation of joint ventures between the successor banks to the commercial arm (Deutsche Kreditbank) of the former monobank (the Staatsbank) and the Deutsche Bank and the Dresdner Bank. Within a short period of time, the joint-ventures became wholly owned by Deutsche and Dresdner respectively. In this way, Deutsche and Dresdner became bankers to thousands of THA enterprises. As a result, they took on the administration of the THA-guaranteed credits to provide liquidity to enterprises. Commerzbank, the Berliner Bank and the other West German commercial banks quickly moved to establish branch networks in the East. Within a year of unification, there were 40 private banks operating in East Germany with over 600 branches. As the pressure of competition for customers increased, the practice of banks charging a premium on loans guaranteed by the Treuhand ceased. In their fourth report on adjustment in the New Länder, the DIW (Berlin) and IfW (Kiel) state that the spectrum of financial services in terms of variety and conditions is largely the same as in West Germany (DIW 1991 p.728).

By the end of 1991, in the private banks in East Germany nearly one-quarter of bank employees came from West Germany and were engaged in on-the-job training of their East German colleagues. Furthermore, employees in East German branches received three times as many days in training courses as their West German colleagues. Table 2 provides information on the growth of the activities of the cb-branches in East Germany. The rapidity with which the electronic processing of bank transfers was introduced is illustrated in the lower part of the table.

[7] One example of how western management expertise is supplied to CEEC banks is the 'Twinning Programme[1] for Polish banks, sponsored by the International Finance Corporation, a World Bank subsidiary. The twinning programme matched seven Polish banks with partner banks in Western Europe, where the western bank was paid to provide technical expertise over a three year period. When the Polish banks are eventually privatized, the western twin will have the chance to buy 20% of the shares (see G. Smosarski, 'Can Poland's banking boom continue?' Central European 2/1992.

Table 2. Development of customer base and branch networks of banks in East Germany

	1990	1991	1993
Private Banks			
No. of branches	-	750	1117
Investment (DM bn)	-	2.7	4.3
Employees	-	18700	20979
of which: West Germans		25%	21%
Avg. no. of days in training programmes: Employees in East Germany, 1990-1993		24.9	
Employees in West Germany, 1990-1993		8.0	
No. of private customers (000's)	1185	2303	3114
No. of business customers (000's)	79	141	263
Share of business customers (% of all customers)	6%	6%	8%
Memorandum item: Share of business customers West Germany	*5%*	*5%*	*5%*

The Sparkassen had 3233 branches with 42 000 employees in 1393. where DM 5.6 bn had been invested in East German branches in the period 1990-1993.

All banks - processing of bank transfers

	1990 (3rd quarter)	1992 (2nd quarter)	West Germany 1991
Total number (000's)	4630	26186	-
of which: processed			
manually	4 %	0.5 %	1%
automated clearing system	95%	67.5 %	46 %
processed electronically	1 %	32 %	53 %

Sources: Bundesverband deutscher Banken. 'Die privaten Banken in den neuen Bundesländern', various issues; Deutscher Sparkassen-und Giroverband. 'Leistungen der Sparkassenorganisation in den neuen Bundesländern'. 1994; Deutsche Bundesbank, 'Abschlußbericht der vorläufigen Verwaltungsstelle Berlin', 1992.

The restructuring of the savings and cooperative banks sectors took longer since it involved the modernisation of existing institutions with the incumbent management largely kept in place. As noted above, although their activities had been dramatically curtailed during the GDR-era, the savings and cooperative banks still existed in East Germany in 1990. Their West German counterpart banks took on the task of modernizing and

integrating them into the West German structures.[8] Considerable resources flowed from the West German savings and cooperative banks to the East - in terms of human capital as well as assistance with reequipping the Eastern banks. According to the savings banks association (Deutscher Sparkassen und Giroverband) more than 5000 West German managers were actively involved with on-the-job training in East German savings banks in the early stages of the transition. This free provision of managerial resources by the West German savings banks was supplemented by the DM 100 mio. the East German savings banks have invested in staff training in the period 1990 to 1993.

The comparison of the profit and loss accounts of the East and West German savings banks shows how quickly the East German savings banks have come to approach West German earning ratios (see Figure 1). The higher operating expenses of East German savings banks reflect the significant expenditure on staff training and the massive investment in buildings and equipment (Deutsche Bundesbank, Monthly Report 4/1994, p. 41). East German savings banks enjoy a much higher interest margin (net interest as % of business volume) than their West German counterparts. This is due to their interest expenditure being below rather than their interest earnings being above the West German level - the East German customers kept their deposits in low yielding savings accounts rather than opting for more favourable time deposits. This advantage for the East German savings banks is likely to be eroded over time, but has helped the East German savings banks to finance the adaptation to West German standards.

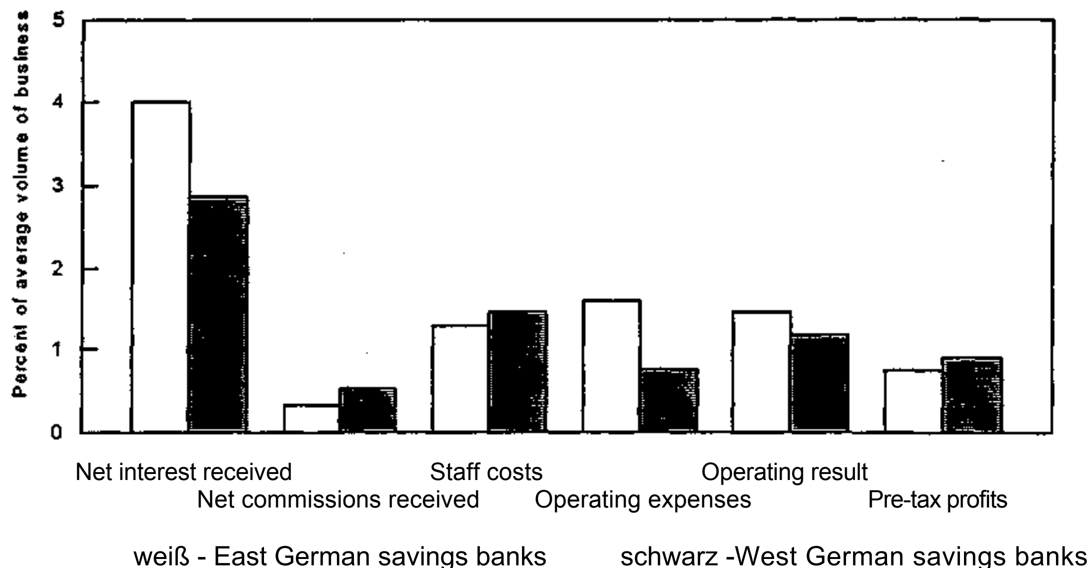
In the future however the biggest problems for the savings banks will be on their asset side. Having operated as deposit taking institutions under central planning, their portfolio of loans is still small compared to their deposits. In 1990, loans to enterprises amounted just 0.6% of the savings bank sector's total assets (loans to self-employed persons: 2.9%). In 1992, this share had risen to 7.8% (self-employed persons: 6.2%). However, the share of enterprise loans in East Germany would have to double to reach the West German level of 17.8% (self-employed persons: 15.8%).

Figure 2 provides a guide to the transformation of the banking sector in East Germany. The fact that the Staatsbank was the repository for old enterprise loans is clear. For all the other banking groups, lending to enterprises began in 1990. The short-term liquidity loans to THA enterprises show up clearly in the credit bank category (which corresponds to cb-branches in our terminology). The rapid growth from a tiny base of the savings banks is notable. The figures for the two development banks, the Kreditanstalt für Wiederaufbau (KfW) and the Deutsche Ausgleichsbank (DtA), overstate the true volume of loans at any particular time, because the figures refer to loans granted, while the figures for the other categories of banks refer to paid out loans. Even though the figures are overestimates, they illustrate the importance of the development as suppliers of long term finance to East German enterprises (see also Table 3 below for more details).

Figure 3 helps to clarify the evolution of loans to Treuhand enterprises and the role of state guarantees. By the end of 1990, over 70% of all loans to enterprises in East Germany by the private banks were to THA-owned firms and virtually all of these liquidity loans were state-guaranteed. By the end of 1993, however, the loan portfolio of the private banks was no longer dominated by loans to THA-owned enterprises. The share of state-guaranteed loans in loans to non-THA enterprises from the end of 1992 to the end of 1993 represents the growth in the operation in East Germany of the Guarantee Banks

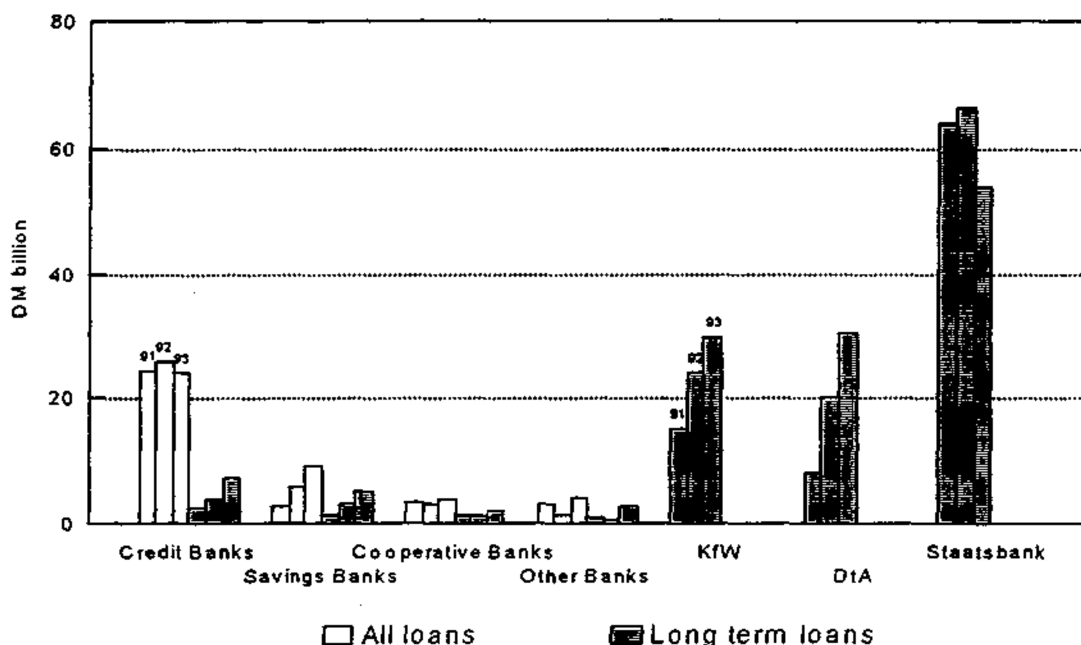
[8] For details see Deeg 1994, pp. 9-15

Figure 1
East and West German savings banks - comparison of profit and loss accounts. 1992



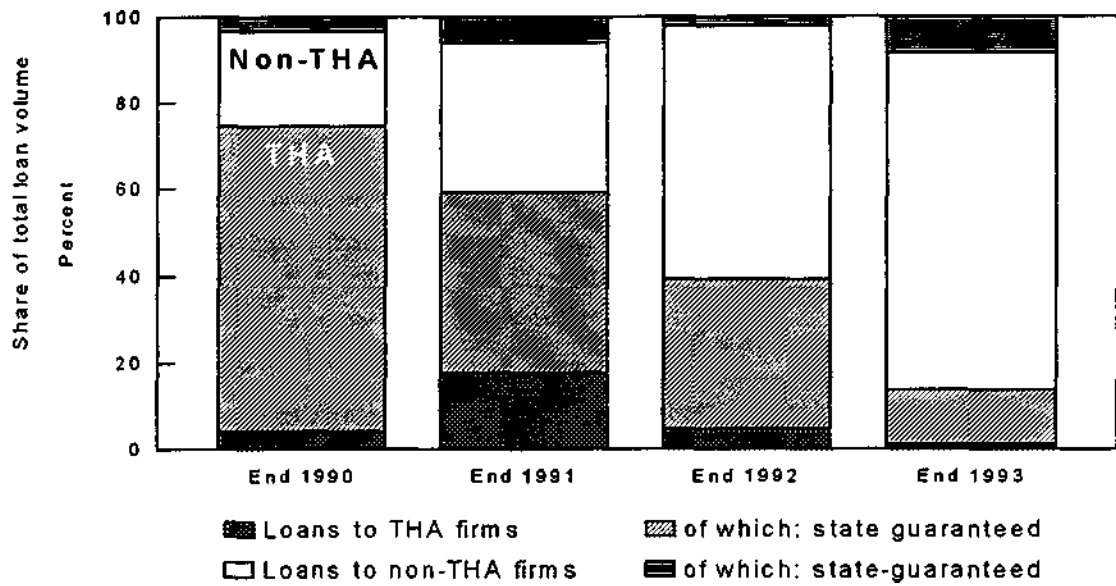
Source: Deutsche Bundesbank. 'The profitability of east German savings banks 4 credit cooperatives'. Monthly Report April 1994.

Figure 2
Banks in East Germany - loans to enterprises, absolute numbers, 1991-1993



Note: The figures for KfW and DtA refer to loans granted, while the figures for credit, savings, cooperative and other banks refer to paid out loans. There can be considerable delays before granted loans are paid out. The figures for savings and cooperative banks exclude regional giro institutions (Landesbanken) and regional and central cooperative banks. The Staatsbank figure shows the stock of old enterprise loans carried over from the GDR banking system.
Source: Deutsche Bundesbank. Regionalergebnisse der Monatlichen Bilanzstatistik; KfW annual reports 1991.1992.1993; DtA annual reports 1991.1992.1993: own calculations.

Figure 3
West German Credit Banks - enterprise loan portfolio in East Germany, 1990-1993



Source: Bundesverband deutscher Banken.'Die Privaten Banken in den neuen Ländern', various issues.

which also operate in West Germany (discussed above in section 3.2). One aspect of the normalisation of the banking system in East Germany, as it applies to enterprise loans, shows up in Figure 4 where the proportion of short to long term loans appears to be moving towards the West German ratio.

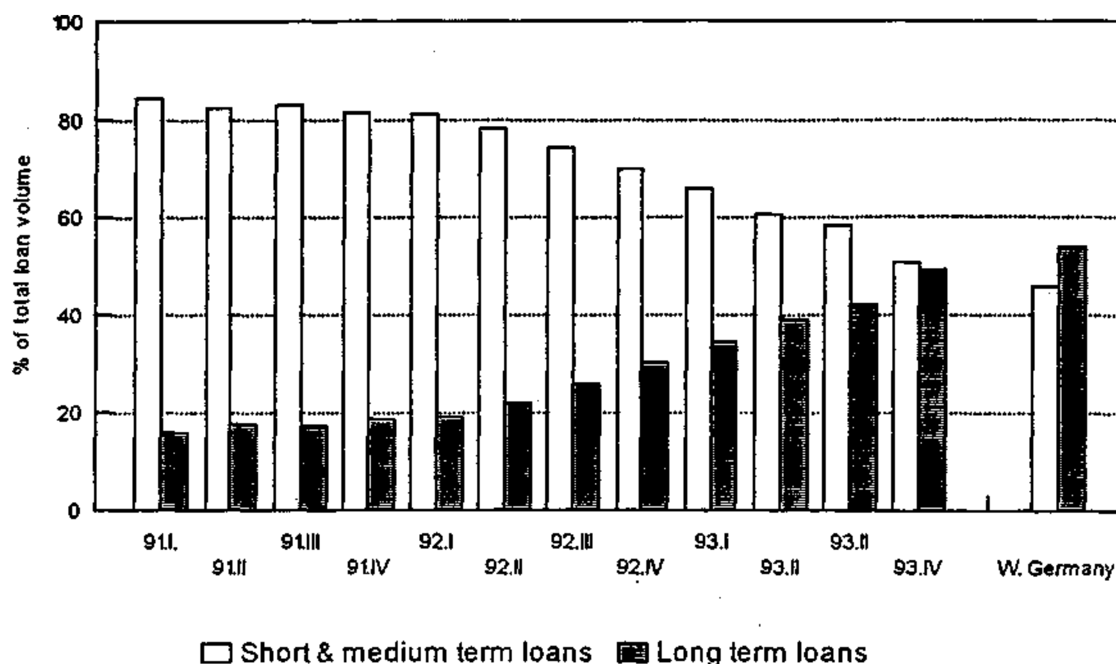
Figure 5 shows the evolution of the shares of the market for loans to enterprises by the different bank groups and compares this with West Germany. The data presented suggest that a convergence between the structure of banking in the East with that of West Germany is occurring. The peculiarities of the inherited structures in the commercial bank sector have diminished with the increasing competition from the restructured savings and cooperative bank sectors and the reversion of the cb-branches to a more typical client base centred around the East German enterprises bought by Western firms.

A note of caution should be inserted here: The figures on the composition of the East German banking system quoted above refer only to loans granted by banks (or branches of banks) *located in East Germany.* However, loans granted by banks *located in West Germany* to East German enterprises or individuals are not accounted for. Furthermore, the figures ignore loans granted by banks located in West Germany to West German companies or individuals who want to invest in East Germany. One reason why the volume of loan commitments of the KfW and the DtA shown in Figure 2 is so high in comparison to the rest of the banks is because it includes loans to West Germans investing in East Germany whose loans applications have been processed by banks located in West Germany (more than one quarter of the KfW-promoted investment in East German industry was investment by West German companies in East Germany (Seidel 1994). The true flow of loans from banks in West Germany to either East Germans or West Germans investing in East Germany is extremely hard to quantify. The only estimate that exists is by the savings bank association: It estimates that West German savings banks provided loans totalling DM 23 bn to some 25 000 enterprises and individuals investing in East Germany in the period 1990 to 1993. The corresponding figure for the whole West German banking system could be twice as high.

In spite of these indicators of 'forwardness' of the banking system in East Germany, the banks have been widely criticized. There have been periodic public debates in West Germany during the post-war period concerning the excessive power of the (big three private) banks. Since reunification, the banks have once again been subject to public criticism: this time for failing to use their 'power' to restructure East German industry. The federal industry association, the BDI, sought to pin down the complaints of SME firms in East Germany concerning the treatment of their requests for credit by the banks (cb-branches and local banks) (BDI, 1994). More than 1,000 enterprises participated in the survey. The outstanding complaint registered by enterprises was what was felt to be an excessively stringent requirement for collateral before loans are granted. East German enterprises frequently lack the normal types of collateral because of the continuing uncertainty about the ownership of land and the delays in having property ownership officially registered. Moreover, the banks place great emphasis on collateral because of the absence of any business history of the enterprise or of the entrepreneur along with the very high level of uncertainty about the prospects of the industry and related customer and supplier industries in East Germany.

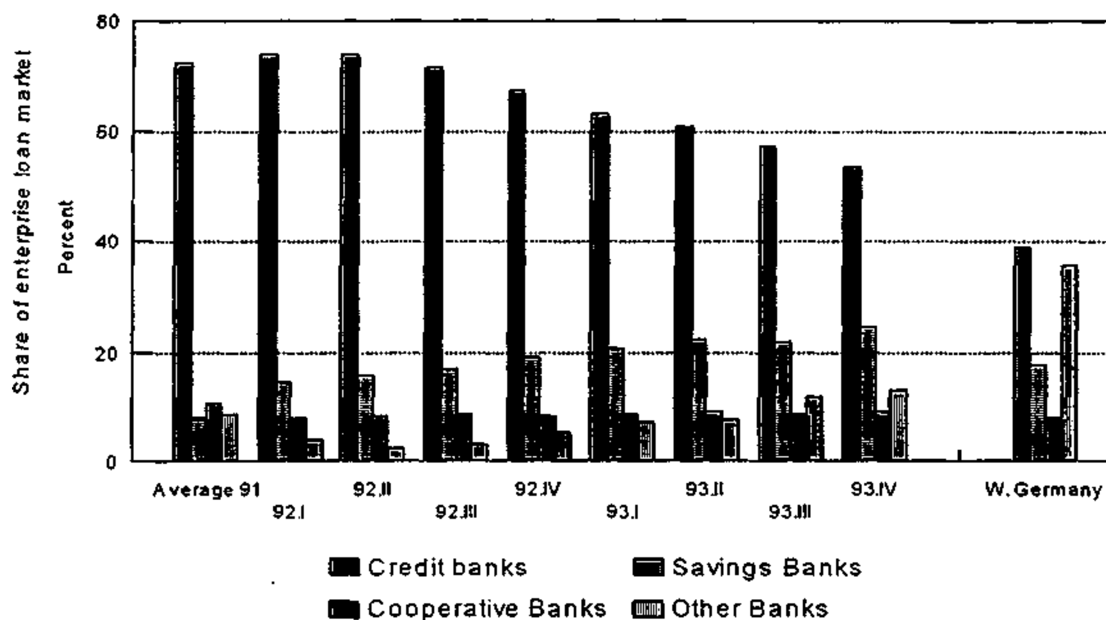
The results from this survey serve to underline the very risky characteristics of enterprises in East Germany. The survey found that for subsidiaries of West German companies, credit was only available when the risk was taken on by the parent company. Because of the availability of this security, subsidiaries were believed to have easier access

Figure 4
Loans to enterprises by maturity of loans - East Germany



Note: Short term loans have a maturity of less than one year, medium term loans have a maturity between one and four years, and long term loans have a maturity of more than four years. Both East and West German figures exclude special banks without branch network such as the KfW or the DtA. West Germany: Average 1991-1993. Source: Deutsche Bundesbank. Regionalergebnisse der Monatlichen Bilanzstatistik; own calculations.

Figure 5
Loans of all maturities - market shares of banks, East Germany 1991-1993



Note: Both East and West German figures exclude loans of special banks without branch networks such as the KfW and the DtA. The market shares of savings and cooperative banks exclude regional giro institutions (Landesbanken) and regional and central cooperative banks. Figure for West Germany: Average 1991-1993. Source: Deutsche Bundesbank. Regionalergebnisse der Monatlichen Bilanzstatistik; own calculations.

to external funds (BDI 1994). The high level of risk of business ventures in East Germany is reflected in the extensive role of the development banks and of the guarantee banks. We turn in the next section to the possibility that there is a specific feature of the transition for which the West German financial system does not provide an adequate solution.

3.4 Is the German banking system likely to be growth-promoting or retarding in the transitional economy of East Germany?

From the discussion of 'forwardness' in section 3.3, we know that the East German banking structure closely resembles the West German one. We can expect strong competition between the banking groups and this should prevent the exploitation by the local banks of local firms which characterizes the Mezzogiorno. Of course, the information available for local banks and cb-branches in East Germany with which to evaluate loan applications is poor. The normal support mechanisms in West Germany such as the sophisticated regional data bases held by the savings banks with balance sheet information on large numbers of SMEs will take time to build up in East Germany. Similarly, the institutional infrastructure of local chambers of commerce, industry associations and firm-firm relationships which allow a flow of information to the banks relevant to the assessment of the viability of projects is not yet effective in East Germany. However, these problems should ease over time and as they do, in the context of the fundamentally sound structure of development and commercial banking that is now in place, we would expect that credit rationing on a scale larger than in West Germany should not occur in East Germany.

We turn to the alternative hypothesis: is the German financial system especially suited or unsuited to the problems of a transitional economy? From the theoretical discussion in section 2, we take King and Levine's hypothesis that a route through which the financial sector can affect growth is through its ability to evaluate, finance and promote entrepreneurs. A special transitional problem is that of supplying entrepreneurs with long term loans. We look first at the ability of the development banks to deal with this problem.

As noted in section 3.3, the KfW and the DtA operate in East Germany along the same principles as in the West. The quantitative significance of the development banks for the finance of total enterprise sector finance is dramatic. Table 3 provides an indication of the breadth of access to long-term finance afforded to East German firms and entrepreneurs by the development banks. In the upper section, the number of enterprises which have successfully secured development bank support are presented. For the non-industrial sectors, the number of SMEs in East Germany per head of population is roughly in line with West Germany. In industry, a considerable gap remains. Yet of the estimated 8600 SME in East Germany in 1992, some 7000 (80%) have received support from one or more development bank. In the lower part of the table, it is shown that some 43 % of total employment in East Germany is in enterprises supported by the development banks.

Table 3. East German firms promoted by development banks, by type of firm, 1990 - 1992

Number of firms	Industrial SME	Craft firms	Trade	Services	Professions
KfW	6500	17600	7800	11800	1300
DtA	3000	45000	26000	23000	35000
BIB	300	2000	1600	15000	100
Total[1]	7000	64000	34000	40000	350
Memorandum item: Total number of SMEs in Germany, end]992:					
East	*8600*	*132000*	*117 000*	*115 000*	*67000*
West	*100000*	*485 000*	*535000*	*580000*	*470000*
Ratio EG/WG	*1/11.6*	*1/3.6*	*1/4.5*	*1/5*	*1/7*

Population: East Germany: 16 Mio. West Germany: 64 Mio - Ratio: 1/4

Investment and jobs promoted by development banks. 1990-1992:

	Loans granted (DM bn):	Jobs secured/created (Millions)	Investment promoted (DM bn; KfW only)
KfW	24	1.6	56.2
DtA	20	1.0	
BIB	4	0.2	
Total[1]	48	2.3	n/a

Memorandum item: Total Employment in East Germany, end 1992(Millions): 5.3

Note: KfW = Kreditanstalt für Wiederaufbau; DtA = Deutsche Ausgleichsbank. BIB = Berliner Industrie Bank. 1: Firms can receive loans from more than one development bank. However, double counting has been eliminated in the reported totals.
Source: Mona Hussein. 'Mittelstand und Mittelstandsförderung in den neuen Bundesländern', in: KfW 'Aktuelle volkswirtschaftliche Themen'. Nr. 2/1993. Number of Manufacturing SME in East Germany: from 'Unternehmensgrössenstatistik 1992/1993'. in: 'Bundesministerium für Wirtschaft - Studienreihe. Nr. 80'. Employment in East Germany = employment excluding workers on short-time and workers in work-creation or special qualification programmes, from: BMWi. 'Ausgewählt Wirtschaftsdaten zur Lage in den neuen Ländern'. Mai 1994.

Nevertheless, in spite of the scale on which development bank finance is flowing to East Germany and the clear incentive characteristics of the system of screening of loan applicants through cb-branches and local banks, there is a major concern with the ability of the system to solve the funding problems of East German entrepreneurs wishing to invest in intangibles. A survey of the purposes of the investment projects funded by the KfW showed a clear difference between the East and West German projects that were funded. Much greater stress was placed by the West Germans on the introduction of new technology and the funding of R&D (Seidel 1994). This can be interpreted in two ways -

possibly East German companies are not interested in R&D (although the KfW would like to fund this as shown by their willingness to fund more R&D in the West German companies) or East German companies would like to do more R&D but banks (both cb-branches and local banks) refuse to take on the liability risk in such risky projects. Table 4 shows that East German firms are making adjustments to production processes and product mix to achieve competitive standards but they are doing little R&D compared to West German recipients of KfW loans. This may be because East German companies are preoccupied with more basic management activities and the difference to West Germany will vanish over time. However, there could be a real funding problem in the sense that banks are unwilling to invest in intangible assets that cannot be recovered in the case of bankruptcy.

Table 4. 'Innovations' and R&D in industrial companies receiving KfW loans, 1990-1993

Type of 'innovation'	Companies in which an innovation occurs. as % of all companies receiving KfW loans (weighted by turnover)	
	East Germany	West Germany
Change of the production process	28.0	25.9
Change to production process developed by the company itself	14.3	9.4
Introduction of new product/s	33.0	18
New products developed by the company itself	21.3	12.4
R&D activities		
	Companies engaged in R&D activities as % of all companies receiving KfW loans (not weighted by turnover)	
Regular R&D activity	13.8	31.4
Irregular R&D activity	14.6	23.5
No R&D activity	45.6	32.2
No information	26.2	12.9
Future R&D activity planned	32.6	55.5

Note: Industrial companies = construction and manufacturing companies
Source: P. Seidel. 'Der industrielle Mittelstand in den neuen Bundesländern 1990 bis 1993'. Kreditanstalt für Wiederaufbau 1994.

A similar picture emerges from consideration of the problem of funding marketing facilities. From Table 5, it is clear that very few East German SMEs are export oriented. Investment in a sales network is again an intangible and may be impossible to finance with KfW loans because of the lack of collateral and hence the unwillingness of the commercial bank to take on the liability risk. Hence although the German system of development finance is very effective is supplying long term loans, the kinds of projects for which the loans are available means that the system is not a complete solution to the financing problem for SMEs.

Table 5. Main sales regions of East German industrial companies receiving KfW loans, 1990-1993

	Regional (50 km)	Main sales region			No information
		Germany	European Union	Non-EU & overseas	
Basic industry	41.4	37.4	0.5	0.3	20.5
Investment good industry	17.6	52.9	0.7	1.1	27.7
Consumption good industry	18.0	55.3	0.7	1.0	25.1
Food, drink & tobacco industry	39.8	33.1	1.2	0.7	19.1
Construction industry	58.0	22.9	0,1	-	19.1

Note: Industrial companies = construction and manufacturing companies.
Source: P. Seidel. 'Der industrielle Mittelstand in den neuen Bundesländern 1990 bis 1993'. Kreditanstalt für Wiederaufbau 1994.

To sum up, both KfW and DtA loans depend on the commercial banks assuming the bankruptcy risk.[9] This may create a bias against high risk-high return projects for these banks, which receive a fixed commission for development bank loans. Projects become high risk-high return when they include high fixed cost expenditure in intangible assets because it makes it harder to recover the loans in the case of bankruptcy. One institutional solution to this problem is the venture capital fund - after all, such funds specialize in supplying risk capital.

Their activities in East Germany are insignificant (see Table 6), especially when the 253 venture capital fund acquisitions in the period 1990-1993 are compared to the 5,833 companies fully privatized by the TEA in the same period. However, venture capital fund holdings in East Germany have reached almost 10% of total German holdings and as the table shows, the average size of participations is virtually the same in East and West Germany. When taking into account that a) fund holdings are a stock that must be built up over time and b) more than 60% of the total German venture capital fund portfolio is held in industrial companies and that the ratio of East German to total German industrial companies is less than 1/10 (see Table 3), venture fund activity in East Germany does not seem to be exceptionally low. It is rather that the venture capital funds play an insignificant role in West Germany as well. The total value of the German fund portfolio of DM 5.4 bn compares with a value of DM 16 bn in the UK (end 1992) and DM 38 bn in the whole of the EC (end 1992) (Frommann 1993).

But in West Germany, firms have the possibility of financing high risk-high return projects from retained earnings (or pension reserves). In East Germany, this possibility does not exist for firms which are not owned by West German (or foreign) companies. The KfW has attempted to remedy this problem with a series of programmes but as shown in Table 7, the take-up of these facilities in East Germany has been extremely low.

[9] In some East German programmes, the KfW has taken on significant amounts of the default risk. In 1992, for example, the KfW carried 40% of the default risk of every tenth loan applications under the ERP-Reconstruction programme. The KfW will only carry a share of the default risk on loans of less than DM 1 million.

Table 6. Participation fund activity in East Germany

Fund holdings in East Germany, end 1993	Number of fund acquisitions	Total value of fund acquisitions (Mio. DM)	Average value (Mio DM)
	253	498.49	1.97
Memorandum item:			
Fund holdings in the whole of Germ any. end 1993	*2758*	*5374.53*	*1.95*
East German holdings as % of total German holdings	*9.1%*	*9.3%*	*101%*

Note: The data above includes both reported acquisitions by funds that are members of the BVK as well as acquisitions by non-members. However, not all non-members participated in the BVK market survey.
Source: Bundesverband der Kapitalbeteiligungsgesellschaften. 'BVK-Statistik 1993'

Table 7. KfW programmes promoting venture capital fund activities in East Germany, 1990-1993
(million DM)

KfW programme		1991	1992	1993
Participation programme (refinance for venture capital fund investments in SME)	East Germany	10.9	35.0	79.3
	West Germany	63.9	48.9	55.5
Technology participation programme (refinance for companies or funds taking stakes in young high tech enterprises)	East Germany	0.8	1.0	2.3
	West Germany	22.1	26.7	33.8
Special R&D loan programme (Loans for R&D projects, where the issuing bank carries reduced default risk)[1]	East Germany	-	2.6	7.8
	West Germany		96.1	46.4

Note: Applications under the technology participation and the special R&D loan programme must be approved by the Federal Ministry of Science and Technology.
1: Banks carry 25% of the default risk for loans lo East German companies and 50% of the default risk for loans to West German companies.
Source: KfW annual reports 1991. 1992. 1993.

Conclusions

The first argument of this paper is that although the East German economy faces formidable difficulties, it has benefited in comparison with other transitional economies from the rapid and comprehensive reform of its financial system. This has allowed the East Germans to avoid the 'bad loans problem' in which an overhang of non-performing enterprise loans in the portfolios of the banks dampens their incentive to monitor new loans. It has been argued that under the special circumstances characterizing the East

German transition, the full carve-out of enterprises from the banking system and the centralization of restructuring and privatization in a state agency may have been justified. Just as East Germany provides no model for the delegation of restructuring to banks, it also provides no model for the ownership of enterprises by banks as a route for solving the corporate governance problem in state owned enterprises.

Secondly, we have sought to raise the question as to whether the financial system may have an important role to play in growth under circumstances in which a high level of investment is being financed not from retentions but from flows of funds from outside the regional economy. In the Italian Mezzogiorno, high levels of investment have combined with weak growth over decades to prevent convergence to levels of value-added per head in the Centre-North. Through a comparison of institutional structures, it is argued that whereas the financial institutions in the south of Italy may well have contributed to the Mezzogiorno problem, the German structure of development banking and the extent of competition between the different banking groups in commercial banking introduced into East Germany will prevent this problem from arising.

In the absence of retained earnings in East German companies, it is striking that high levels of investment in the enterprise sector in machinery and equipment and in buildings are being financed through the banking system. However, where East Germany - and in particular, that part of the SME sector without Western ownership - is likely to suffer is in the inability of the financial system to adequately fund high risk-high return projects where investment in intangibles is central.

Albach (1993) has argued that access to the 'built-in' know-how or intangible capital of market economies (in terms of product, production, marketing, organizational and institutional know-how) is the key to successful transformation in East Germany where firms were faced with immediate and intense competition. Albach's thesis is that a pre-condition for East German firms to trade successfully in the west is access to the network of know-how on product quality, production technology (including the diffusion of innovation) and marketing. On the one hand, this underlines the importance of the Treuhand's policy of finding West German and foreign owners (with access to internal funds and connection to technology diffusion and marketing networks) for East German enterprises and on the other, it highlights the institutional problem in the financial sector which remains outstanding - the means to provide funding for investment in intangibles.

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