

Irsch, Norbert

Article

Small and medium-sized enterprises in East Germany: Status and outlook

CESifo Forum

Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Irsch, Norbert (2005) : Small and medium-sized enterprises in East Germany: Status and outlook, CESifo Forum, ISSN 2190-717X, ifo Institut für Wirtschaftsforschung an der Universität München, München, Vol. 06, Iss. 4, pp. 7-15

This Version is available at:

<https://hdl.handle.net/10419/166245>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

SMALL AND MEDIUM-SIZED ENTERPRISES IN EASTERN GERMANY: STATUS AND OUTLOOK

NORBERT IRSCH*

After 15 years of German unity, it is time to take stock. As a development bank of the German federal government and states, the KfW Banking Group saw the anniversary as a suitable occasion to take a closer look at the state of east German small and medium-sized enterprises. What has been done since reunification and what still needs to be done?

In the second section we shall first look briefly at the role business start-ups have played in the east German economy's efforts to catch up with the old federal states. Section 3 examines the innovation activities of SMEs, because an efficient innovation system is key to east German recovery. Finally in section 4, we analyze the capital structure in the east German SME sector. Here we pose the question of whether the funding of east German businesses differs from that of their western counterparts.

The role of start-ups for economic recovery in the new federal states

Before reunification, small and medium-sized enterprises were virtually non-existent in the east German economy. Start-ups therefore played a key role in the rapid establishment of a competitive small and medium-sized sector modelled on advanced industrialized countries. Up to the mid-1990s, the new federal states witnessed a veritable start-up boom, as shown in Figure 1, which traces the intensity of start-ups from 1990 to 2003.¹ After a relatively brief but very intensive phase, start-ups in east Germany already began to converge on west Germany.

The “normalization” of start-up intensity in the new federal states since the mid-1990s should not, however, be confused with an identical pattern of start-up activities in west and east Germany. In the light of high underemployment in the new federal states, start-ups out of unemployment and industry patterns in start-ups, especially their technology intensity, are of special interest, for there are pronounced structural differences between east and west Germany.

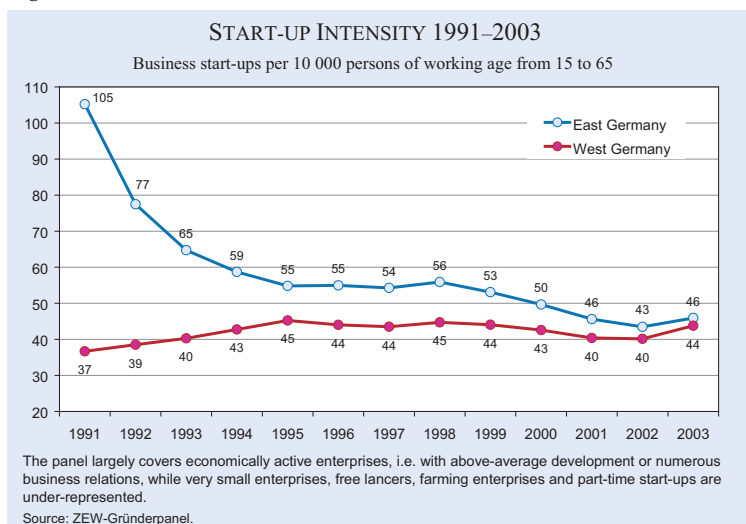
The KfW start-up monitor² ascertained in 2004 that 72 percent of full-time businesses in east Germany were started out of unemployment while

the share in west Germany amounted to about 42 percent. In businesses started by the unemployed, the main concern is often employment of the founder, less so growth or innovation, which could have more far-reaching effects on the national economy.

Despite a convergence of start-up activity there are big structural differences between eastern and western start-ups



Figure 1



* Chief economist, KfW Banking Group.

¹ These figures collected by ZEW Mannheim (Centre for European Economic Research) only pertain to entries in the company register and active start-ups. Nevertheless, due to the long time series, this data is suitable as an indicator for analyzing start-up trends.

² The KfW Start-up Monitor is a demographically representative dataset on start-up activities in Germany. The 2004 sample comprised 40,000 persons.

This hypothesis is underpinned by another observation: If we distinguish start-ups by technology-intensive and non-technology-intensive sectors, there has been a slight downtrend in the intensity of both leading-edge/high-tech and technology-intensive service start-ups³ in east Germany in recent years. Start-up intensity, however, has risen again slightly in west Germany in these sectors since 2003. Start-ups in technology-intensive sectors are usually based on innovative projects that help develop new markets, commercialize new technologies and create new jobs. The danger therefore in the current trend is of the east German economy falling behind in this important sector.

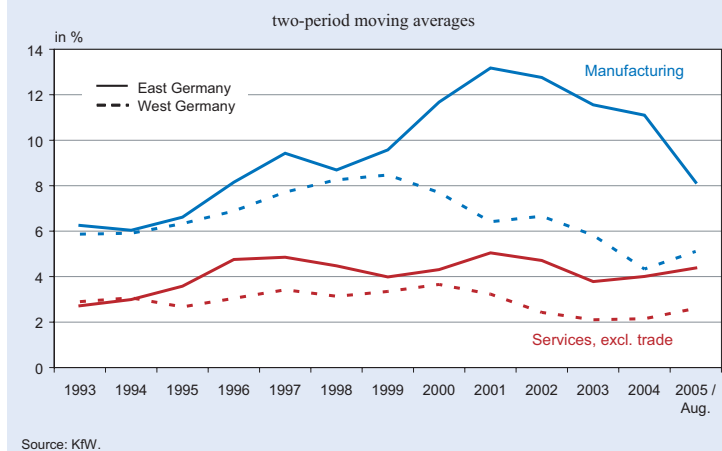
On balance, the intensive start-up activities have contributed to developing a broad small and medium-sized sector in east Germany. At the end of the sample period, however, we can see that in comparison with the old federal states a considerably larger percentage of businesses in the new states are started by the unemployed. At the same time, the innovative start-ups in technology-intensive sectors have declined somewhat. More attention must therefore be paid to harnessing resources for innovation both in start-ups and in existing enterprises. Only by developing viable, high-growth firms with innovative products and processes will east Germany be able to consolidate and enhance its economic performance.

Specifics of the innovation system in the new federal states

Innovations are the driving force of the economy. They open up new markets and earnings opportunities for enterprises. At the macroeconomic level, innovations speed up structural adjustment to engender new viable sectors. So innovations lay the foundation for economic growth and contribute a lot to job creation.⁴ In the following, we shall therefore look in more detail at innovation activities in the

Figure 2

RATIO OF 'AUTHENTIC' INNOVATORS TO ALL ENTERPRISES PROMOTED BY KfW BROAD-BASED PROGRAMMES, 2002 TO 2005/AUG.



new federal states, examining the special situation of small and medium-sized enterprises in particular.⁵

Distinct rise in innovation activities by east German SMEs in manufacturing

For further analysis we shall draw first on data on promotional loans from KfW available as a time series, which thanks to the high market penetration depicts the innovation behaviour of small and medium-sized enterprises in general very well.⁶ An enterprise is rated an "authentic" innovator if the KfW-financed project entails exerting own development efforts to introduce a product or production method and this product or process has not yet been offered by any competitor. This indicator therefore reflects the frequency of innovation projects implemented in small and medium-sized enterprises. Also relevant for the interpretation is that as a rule the projects promoted by the KfW Broad-based programmes are about simpler, less sophisticated innovations in product range or manufacturing processes.

Figure 2 shows the ratios of "authentic" innovators in the new and old federal states from 1993 to August 2005 for manufacturing and services (excluding trade). The share of innovators among small and medium-sized enterprises in east and west Germany hardly differs at all in the industries under

³ Source: ZEW Gründerpanel.

⁴ Cf. for example Rammer, C. et al. (2005), "Innovationen in Deutschland", ZEW Wirtschaftsanalysen 78 or Schäfer, C., (2004), "Einflussfaktoren auf das Beschäftigungswachstum", KfW-Research, *Mittelstands- und Strukturpolitik* 31.

⁵ Cf. for example Zimmermann, V. (2003) "Zur Entwicklung der Innovationstätigkeit von kleinen und mittleren Unternehmen – Empirische Ergebnisse für die alten und neuen Bundesländer 1991–2001", F. Pleschak (Ed.) *Wachstum durch Innovation*.

⁶ Small and medium-sized enterprises (SMEs) comprise all enterprises with a turnover of less than EUR 500 million. The KfW Broad-based programmes cited aim at promoting general investment projects in small and medium-sized enterprises. Some of the promoted enterprises are innovative.

Innovation activity has been higher in east German than in west German SMEs

review at the beginning of the period. In manufacturing, the innovator ratio started to rise in the old and new federal states alike as of 1994, with the development in the new federal states slightly stronger. Towards the end of the 1990s, the percentage of “authentic” innovators in the old federal states begins to drop while that in the new ones keeps on a distinct upward path up until 2001. After 2001, the innovator ratios in manufacturing also take a downturn in the new federal states. The decline in innovation activities can be seen as a “normalization process” or as an adjustment to the innovation activities of west German SMEs. The trend depicted in Figure 2 confirms other studies that have also ascertained a higher rate of innovation activities in east German enterprises at the end of the 1990s and after the turn of the millennium.⁷

In services, in contrast, the difference in innovator ratios was much smaller between the eastern and western states and the trends a lot less volatile. While there were hardly any changes in the old federal states during the second half of the 1990s, the share of authentic innovators in the new states increased slightly in the middle of the 1990s and has stuck to this level since.

Clear differences are also evident in innovation activities by region. Figure 3 shows the regional distribution of innovative SMEs in the new federal states as indicated by KfW loan data. It shows the ratios of “authentic” innovators plus the enterprises promoted by special KfW programmes for innovation finance to all enterprises financed under general investment promotion.⁸ The Berlin conurbation and its southern hinterland (Havelland-Fläming), the regions around Leipzig (West Sachsen) and Halle as well as Mittelthüringen (Erfurt) stand out in particular as regions with a high share of innovators. The region around Dresden (Oberes Elbtal/Osterzgebirge) is also notable for its high share of innovators (ranking 7 in this evaluation). Altogether, the innovation activities of small and medium-sized enterprises are higher in the southern part of the new federal states than in the north.

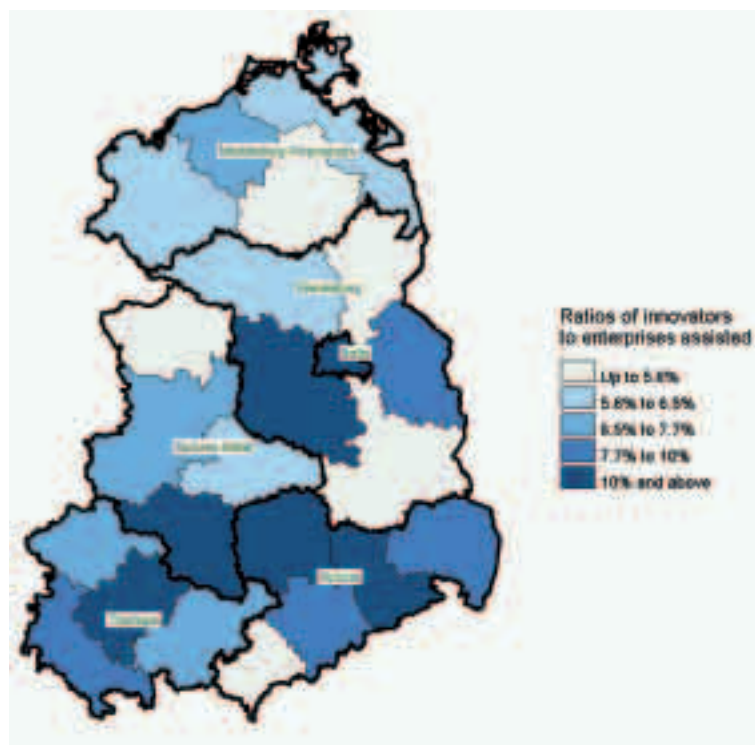
Government assistance boosts innovation efforts

The innovation performance of enterprises is largely determined by two input factors. Key is the extent of their own regular R+D efforts and the ability to make use of external knowledge for their own innovation process, principally through cooperation partnerships.⁹ As Figure 4 shows, in the KfW Broad-based programmes, the ratio of enterprises engaged in regular R+D in the new federal states is considerably higher, at almost 12 percent, than in the old federal states, which amounts to 6.4 percent. The greatest differences are less evident in those industries where particularly intensive use is made of R+D know-how than across the economy in general.

The more innovative firms are in the southern part of east Germany

Figure 3

SHARES OF INNOVATIVE FIRMS OF ALL SMEs PROMOTED BY KfW,
BY ADMINISTRATIVE REGION, 2000 TO 2005/AUG.



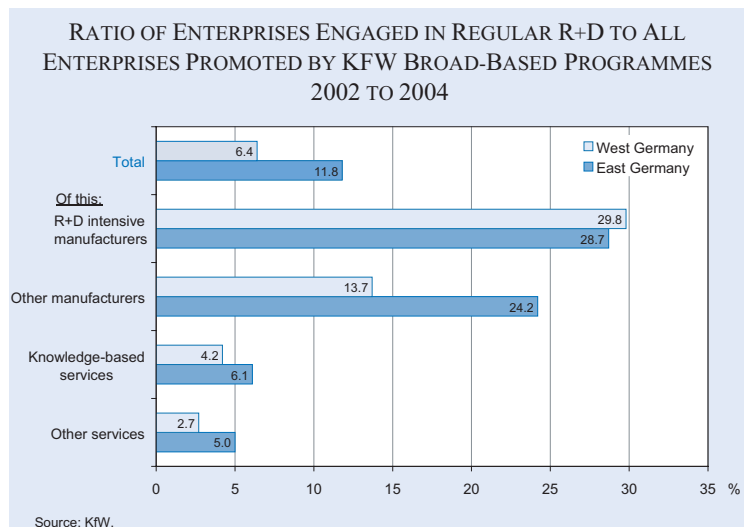
Source: Database is made up of KfW Broad-based programmes and special programmes for innovation promotion

⁷ Cf. for example Schmalholz, H. und Penzkofer, H. (2001), “Hat die sächsische Industrie ihre Spielräume für mehr Innovationen genutzt? – Ergebnisse des ifo Innovationstests 1999/2000”, *ifo Dresden berichtet* 5/2001.

⁸ Departing from previous procedure, the enterprises promoted by the special KfW programmes for innovation finance are also included in this figure. This has been done because there are marked geographical differences in the enterprises promoted by the innovation programmes in the new federal states. Leaving these programmes out of the evaluation would have meant that the conurbations (particularly Berlin) would have posted an inordinately low innovation activity.

⁹ Cf. for example Andres, M. and V. Zimmermann (2002) “Originäre Innovatoren und Nachahmer-Bestimmungsfaktoren des Innovationsverhaltens von KMU”, *IGA – Zeitschrift für Klein- und Mittelunternehmen* 50.

Figure 4



The differences are even more pronounced when it comes to cooperation partnerships. In the new federal states, at 16 percent, more than double the percentage of enterprises are engaged in cooperation than in the old federal states (see Figure 5). In manufacturing in particular, the share of SMEs cooperating with enterprises or research centres well exceeds that of their counterparts from the old federal states.

The high level of R+D and cooperation in the east German economy, in part well above that in west Germany, is attributable in large degree to special development measures to promote the east German innovation system:¹⁰ According to estimates by ZEW for 2000, every third industrial enterprise in the new federal states and every eighth enterprise in business services was awarded public assistance for research as compared with “only” every tenth industrial enter-

prise and every twelfth business service provider in the old states. Of the manufacturing enterprises engaged in R+D, as many as 90 percent received financial support for R+D (approx. a third in the old federal states).¹¹

More recent studies indicate that large parts of the innovation activities of east German firms are prompted by these measures: Calculations show, for example, that the bulk of R+D spending is attributable to public assistance. About two thirds of R+D expenditure was mobilized by assistance. Only a third of the enter-

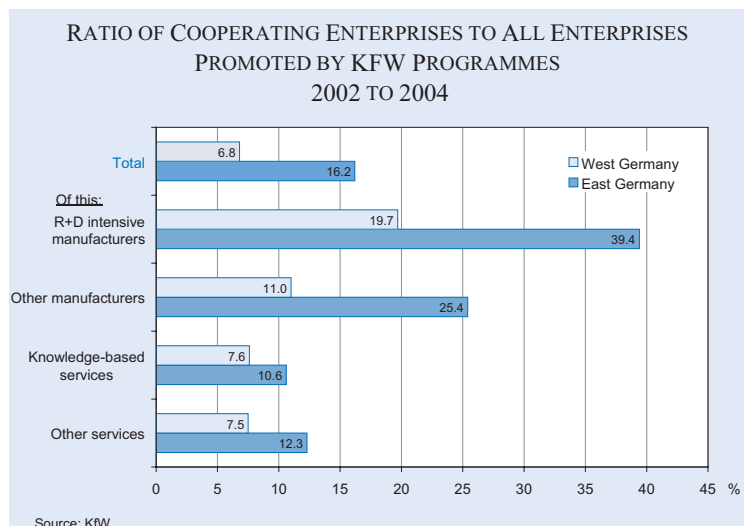
prises engaged in R+D would run these activities without assistance.¹²

Deficits in commercializing innovations

In the following, we shall leave the “input” side of the east German innovation system and turn to assessing the success of these efforts. A number of indicators at the macroeconomic level point to deficits in translating innovation efforts into marketable and technology-intensive products. Accordingly, measured against inputs, the output of research is relatively meagre, at least when comparing the eastern with the western states. If, for example, we compare the number of patents to R+D expenditure, east German enterprises only record about 40 percent of the “productivity” in west Germany.¹³

The poorer innovation performance in comparison with west Germany can be verified with other indicators. East German firms, for example, glean a far lower share of turnover with new products (by expanding their own product range) than in the west. This is also true for the

Figure 5



¹⁰ Cf. for example Czarnitzki and Licht (2004), “Die Rolle der Innovationsförderung im Aufholprozess Ostdeutschlands”. ZEW Discussion Paper No. 04-68, and Legler et al. (2004), “Innovationsindikatoren zur technologischen Leistungsfähigkeit der östlichen Bundesländer.” Studien zum deutschen Innovationssystem No. 20-2004.

¹¹ Cf. Legler et al. (2004) loc. cit.

¹² Cf. Czarnitzki and Licht (2004) loc. cit.

¹³ Cf. Czarnitzki and Licht (2004) loc. cit.

East German R+D is highly dependent on support programmes

ratio of turnover with market innovations. Nor have east German enterprises been able to make as many cost savings with process innovations as their west German counterparts.¹⁴

Moreover, the east German economy has been too heavily geared to producing standardized, less technology-intensive goods. At 43 percent, the share of R+D-intensive branches in total turnover in manufacturing is still considerably less than the west German figure of 60 percent. The new federal states are also lagging behind the old ones in high-tech goods production:¹⁵ While manufacturing in the west earns almost 40 percent turnover with high-tech goods, this amounts to only 25 percent in the east. So till now, corporate innovation efforts have not sufficed to establish a high-tech segment in the east German economy comparable to the West.

As the best way to succeed in new markets is with innovative goods, the disadvantage of this pattern of goods production is obvious. This is how the innovation activities of an enterprise also determine its market goal. In principle, market shares can also be gained with standardized products, but this is not where the comparative advantage of the east German economy lies over suppliers from Eastern Europe and Asia; so the deficits in the innovation system also affect performance in the export industry. The correlation between innovation and export activity has been substantiated empirically: Companies with product innovations record an export ratio of 21 to 28 percent¹⁶, while non-innovative enterprises record one of only 13 percent. At 39 percent, the share of export-dedicated branches¹⁷ in total manufacturing turnover is accordingly well under the west German figure of 60 percent. So a reason for the relatively low export ratio of east German industry as compared with the west, 25.5 percent to 40.9 percent, is the insufficient success of innovation efforts in the east. With keener international competition, particularly from the nearby Central and East European accession countries, this production pattern is not up to the challenge.

Possible causes

One reason for the less successful innovation performance of the east German economy are the financial arrangements for R+D expenditure. While almost three-quarters of R+D investment is funded by private financiers in the old federal states, not even 50 percent¹⁸ is financed this way in the new ones. The high share of public funds in research expenditure affects innovation efficiency: research efforts of public institutions are geared less to developing marketable products and services than is the case for private enterprises. Studies by ZEW, for example, prove that private research investments without assistance are more productive than government subsidized research: Measured by the number of patents, state-sponsored R+D in the new states only came to about 71 percent of the productivity of private R+D (old states: 89 percent).

One reason for the minor role of private research spending is the lack of large-scale enterprises and the large measure of “external control” in the east German economy exerted by west German or foreign owners. We shall now look at these two aspects.

Only 5.7 percent of all German large-scale companies (i.e. 91 out of almost 1,600) with an annual turnover of more than EUR 250 million have their registered offices in the new federal states.¹⁹ Just 30 out of the 757 manufacturing firms with more than 1,000 employees are located in east Germany (with Berlin: 44 out of 757).²⁰ Of the 500 largest German enterprises, only seven are situated in east Germany, but 144 are located in North Rhine-Westphalia. It is large-scale enterprises in particular that contribute most to R+D expenditure in a national economy: In Germany, large firms employing more than 500 people finance 87 percent of all private R+D. This is the main reason for the small share of private research expenditure and for the predominance of public spending in east Germany.

Moreover, large enterprises act as anchors for innovation networks and research cooperation

East German R+D is higher but less productive than in the west due to fewer big companies and more public funding

¹⁴ Source: Rammer, C. et al (2005), *Innovationsverhalten der deutschen Wirtschaft, Indikatorenbericht zur Innovationserhebung 2004*, ZEW. The share of turnover with market innovations, for example, amounts to 7.6 percent in the old federal states, in the new ones, to only 4.5 percent, however.

¹⁵ Leading-edge technology or high-tech goods are those with a R+D share of more than 3.5 percent in turnover.

¹⁶ The export ratio depends on the kind of product innovation. A distinction is drawn between upgrading, extending assortments and market innovations, cf. IAB loc. cit.

¹⁷ Branches are defined as export-dedicated if their export ratio amounts to more than 30 percent of turnover.

¹⁸ The new federal states invest 2.5 percent of their GDP in R+D. Of this, 1.2 percent comes from the private sector and 1.3 percent from government. The old federal states invest 2.6 percent of their GDP, with industry contributing 1.9 percent. Source: Cellar, D. et al (2004), “Die deutsche Forschungslandschaft – starke regionale Disparitäten.” HWWA-Forum, *Wirtschaftsdienst* 2-2004

¹⁹ Ifm Mannheim, Eckdaten der Mittelstandsstatistik, www.ifm.uni-mannheim.de.

²⁰ Statistical Offices of the Federal Government and the States (2004), *Regional statistics*.

projects, in which small and medium-sized firms also participate. This way, large enterprises can function as “technical drivers”.²¹ Cooperation with large companies is evidently also of great importance for market success, particularly in the worldwide marketing of new products.²² Finally, east German SMEs currently lack suitable cooperation partners that could afford them access to these networks.

The main reason for the smaller interface with large-scale enterprises is the transition from a planned to a market economy in east Germany. After the collapse of the GDR, the large-scale enterprises, which were largely located in industry, were demerged under the direction of the (Treuhandanstalt) Privatisation Agency and only a few survived. Along with west German and foreign-owned companies, these “old” enterprises make up the stock of the large-scale sector today. Most genuine east German firms founded after reunification, however, have not yet reached this scale of operation. This is why genuine east German global players are missing today.

Another consequence of the transition described above is that the few existing large-scale enterprises are frequently in the hands of west German or foreign owners and are controlled from “outside”. Forty-five percent of turnover in the east German manufacturing sector is generated in enterprises owned by west German or foreign interests.²³ In 2001, 65 percent of all fixed capital investments were made by foreign (10 percent) or west German (55 percent) investors.²⁴ These enterprises are often subsidiaries that produce much less or even no value added. This has repercussions on east German innovation activities, because the west German or foreign owners use their firms in the new federal states largely as production sites. They have rarely set up their corporate headquarters there. These are, however, where the high-value jobs are to be found, e.g. in management and development departments. These kinds of jobs are missing in the new federal states.

²¹ BBR (2005), *Verbesserung der Innovationsförderung in den neuen Ländern*.

²² Cf. Gerybadze, A. (2005), “Governance-Strukturen in multinationalen Konzernen und die Dynamik regionaler Innovationsnetze und Kompetenzcluster”, Fritsch, M. und Koschatzky, K., eds., *Den Wandel gestalten – Perspektiven des Technologietransfers im deutschen Innovationssystem*.

²³ Source: IAB Betriebspanel Ost – Ergebnisse der neunten Welle 2004, Teil I und III. *IAB Forschungsbericht* Nr. 20 und 22/2005.

²⁴ Guenther, J. (2005), “Investitionen auswärtiger Unternehmen in Ostdeutschland wesentlich höher als in Mitteleuropa”, *Wirtschaft im Wandel* 2/2005.

Interim assessment

The above outline of the innovation activities of small and medium-sized enterprises suggests that east German SMEs, at least as far as input factors are concerned, have caught up to the old federal states. At present, it is largely the output side of innovation efforts that is causing difficulties. A reason for this can be found in the heavy dependence on public assistance and the corollary low participation of the private sector in R+D activities. The productivity of public-sponsored expenditure on research regularly falls short of the level achieved with private finance. The relatively low private research spending in east Germany is attributable in turn to the low percentage of large-scale businesses as compared with the west. The main way to alleviate the problem of lacking of large-scale enterprises is for east German firms to grow. Considering the short span of 15 years, it is hardly surprising that too few large-scale enterprises have emerged to date and that the SME pattern is more prevalent.

An essential factor for the growth of enterprises is their investment activity. This kind of growth is only feasible, though, when finance poses no great problems. The question we therefore need to ask is how east German companies finance their investments and whether they face special difficulties. In the following section, we will therefore examine the capital structure and funding constraints of east German companies.

Capital structure and funding constraints in east Germany

After the “cold start into the market economy”, the surviving east German firms primarily set about modernizing their plant to step up their competitiveness. The high investments entailed, enhanced further by start-ups, left their mark on company balance sheets: The result was a high fixed capital ratio²⁵ in comparison with west German enterprises (1994:²⁶ 43.9 percent; west: 36.9 percent,²⁷ see Figure 8), even rising to over 50 percent²⁸ until 2003.²⁹ Among others, the high depreciation resulting from rapid capital accumulation has curbed balance-sheet profits;

²⁵ KfW balance sheet database.

²⁶ 1994 is the first year for which reliable balance-sheet figures are available in the KfW balance sheet database.

²⁷ Median: East 40.1 percent, West 39.5 percent.

²⁸ The median has dropped to 36.6 percent.

²⁹ The last accounting year available on completion of this text was 2003.

The few big companies in east Germany are mostly owned by west German or foreign investors

and relatively low yields have left little room for strengthening equity, resulting in a low equity ratio (on average across all enterprises: 24.2 percent in the east and 27.7 percent³⁰ in the west). Owing to their relatively limited internal financial resources, east German enterprises at that time resorted to borrowing (1994: 26.2 percent; west: 18.8 percent). Borrowing was facilitated by the initial high growth forecasts for the region and the resultant readiness of banks to finance this growth.

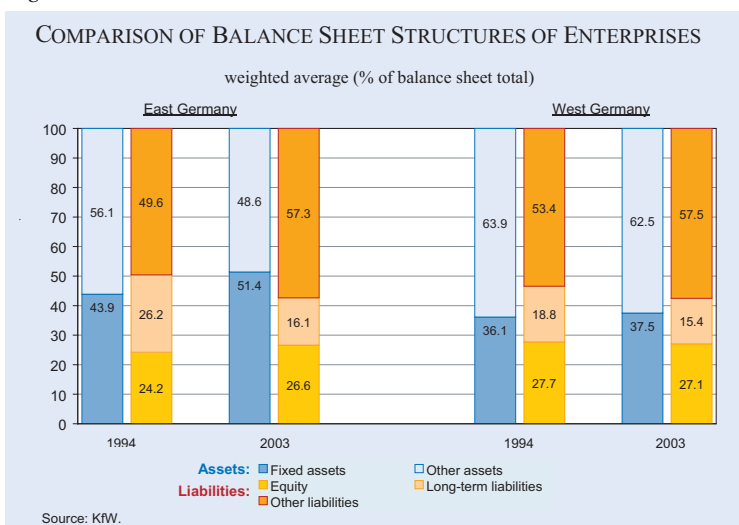
A slight improvement in the finances of east German enterprises is only discernible at the end of the sample period (2003). Nevertheless, up to 2003, the east German enterprises were able to curtail more of their long-term debt than those in the west (east: to 16.1 percent of the balance sheet total; west: to 15.4 percent) and raise their equity ratio a little at the same time (to 26.6 percent). This was possible due to the favourable earnings situation over the previous years and the convergence of investment activity by east German and west German enterprises in the meantime.

The rise in the equity ratio was not enough to compensate for the fall in the long-term debt ratio. As a result, the companies had to face a maturity mismatch between fixed assets and liabilities. Fixed capital assets of east German enterprises are still relatively high because they are newer and more modern than those in west German firms, with average residual asset maturity³¹ amounting to almost 7 years (west: over 5 years) in 2003. Their modern capital stock affords the east German enterprises a big advantage.

The main problem of the east German enterprises, in contrast, is the unhealthy horizontal finance arrangements, as they are financing a part of their long-term assets with short-term liabilities. This poses considerable financial risks.

The still relatively low equity ratio, despite tangible improvements in recent years, is not a specific prob-

Figure 6



lem of east German firms, however. On the one hand, there are also many enterprises in west Germany with a small equity base. On the other, and this is what counts, there are no large, highly capitalized enterprises in east Germany, which would raise the average equity ratio in the region, as they do in west Germany. This is also evident from a comparison of the average and median equity ratio in the regions: While the average driven by the large well-capitalized enterprises is regularly higher in the west (east: 26.6 percent; west: 27.1 percent), the median, which takes less account of differences in scale, is regularly higher in the east (east: 23.7 percent; west: 21.4 percent). Altogether, there is no discernible specific equity gap for east German enterprises, either in the past or at present, but there is one for the region, which is due to the special industry and scale pattern there.

Looking at the different financing patterns in east and west, the question is whether this has an effect on the financial situation of the enterprises in the new federal states as compared with their west German competitors. Based on the findings of the business survey on bank behaviour and finance carried out by KfW in cooperation with 25 trade associations in 2005,³² there are hardly any differences between the old and new federal states (see Figure 7). Almost 50 percent of the east German enterprises register greater difficulties in borrowing in 2004, while only about 41 percent are of this opinion in the west. However, as regression analyses carried

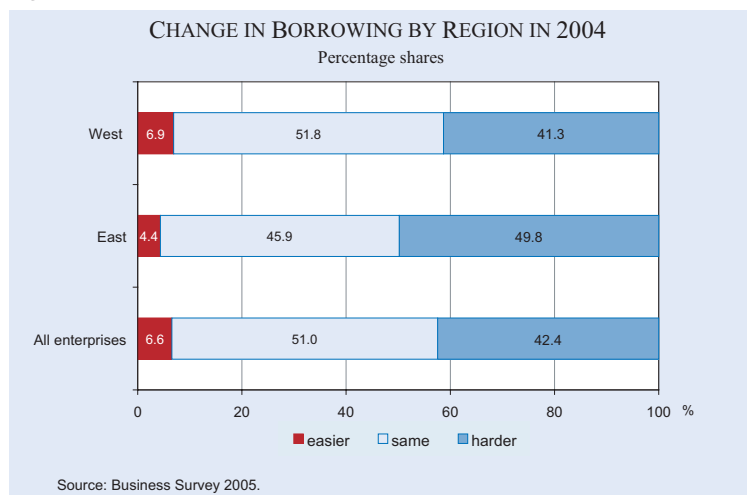
Company finance in east Germany suffers from a maturity mismatch of assets and liabilities

³⁰ The median of the equity ratio amounted to 23.7 percent in the east and 21.4 percent in the west.

³¹ The residual maturity of fixed capital assets is calculated by dividing them by annual depreciation.

³² Zimmermann, V., J. Schumacher (2005), "Unternehmensfinanzierung: Immer noch schwierig, aber erste Anzeichen einer Besserung. Auswertung der Unternehmensbefragung". Available at <http://www.kfw.de/DE/Research/Unternehme.jsp>

Figure 7



enterprises. Also, too few companies are engaged beyond regional markets. On average, the enterprises in the new federal states are therefore particularly affected by the present weakness in domestic demand. Nor can the current trend in start-up activity be gauged as an unqualified success: As welcome as the present increase in start-ups from unemployment is, there is also the attendant danger that too few viable and high-growth firms will be established in the medium to long term.

out in the course of the business survey show, the difference is solely attributable to differences in scale and industry patterns between the eastern and western enterprises surveyed.

If we look at the reasons for the greater difficulties in obtaining credit (see Figure 8), a major constraint on borrowing in east Germany is the banks' collateral requirements, whereas in west Germany it is their insistence on disclosure of information. This may have to do with the drop in real estate prices in east Germany. Noticeably, east German entrepreneurs complain more than west Germans of difficulties in obtaining loans at all. Checking these findings with the help of a regression analysis, however, we find that the reason for this is not the location but the inadequate company size.³³

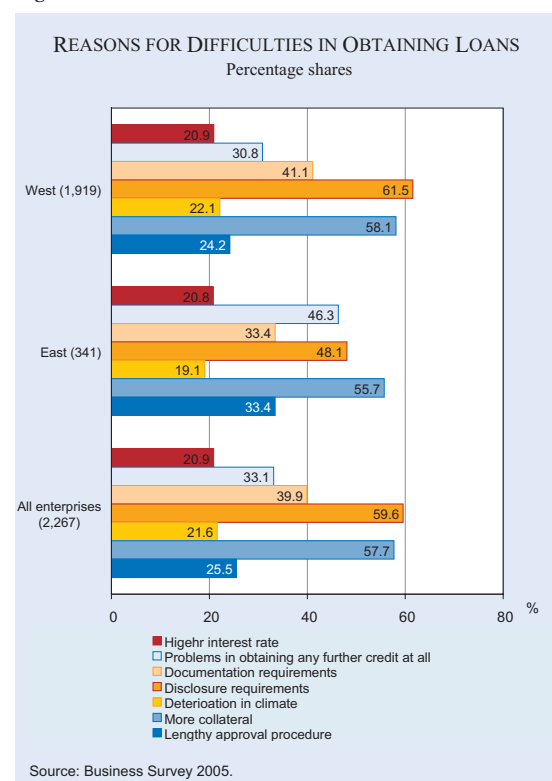
Summarizing, the financial problems in east and west are not essentially different. The differences in the results are largely due to the different scale of businesses. east Germany lacks large-scale enterprises that are usually well capitalized. If one compares enterprises of the same size and in the same industry from east and west Germany, their finances are very similar regardless of region.

Assessment

Fifteen years after German reunification, the new federal states have for the most part managed to build up a stable and healthy stock of businesses. There are, however, still too few genuine large-scale east German

As to the innovation activities of east German SMEs, they are making similar innovation efforts as the west German SMEs, in part even greater. There are, however, deficits on the output side, as shown. In large part, these deficits result from the relatively small financial stake of the private sector in R+D activities along with a high ratio of public expenditure on R+D. The main reason for the relatively low private research expenditure is the lack of large-scale enterprises, which account for the bulk of R+D investment. The absence of corporate headquarters

Figure 8



³³ Cf. Business Survey 2005, p. 13ff.

Differences in loan acquisition mainly due to differences in scale and industry patterns

or parent companies with their large research and strategy departments is the reason why east German SMEs have no or hardly any avenues to profit from the (few) large-scale enterprises as cooperation partners or subcontractors, for example.

The present financial disparities between west and east can also be primarily attributed to the lack of large well-capitalized enterprises in the new federal states. The analyses of funding constraints for east German enterprises also show that the financial difficulties are the result of their small size. This can only be remedied by sustained growth.

Economic policy should continue with current promotion, but focus more on the deficits. Because of the key role which the innovation system plays for the future of east Germany, innovation promotion needs to be made more efficient. One way is to step up technology transfer from universities and non-university research institutes to industry. Dovetailing science and the private sector more closely engenders regional technology clusters, which bring about additional benefits such as the location of R+D intensive manufacturers. Setting up regional spinoff funds can also play an important role here. Another way to improve promotion is to increase the absorptive capacity for R+D results in existing east German enterprises. Due to the prevalent SME scale pattern in east Germany, this is relatively low. Assistance should therefore continue to be given to existing companies for investment and growth so that they can quickly attain a scale that enables them to translate more effectively the know-how of the research institutes into marketable products.

In general, the concern must be to make full use of the opportunities and resources in east Germany. These include in particular the modern infrastructure, more adaptable wage rates, longer working hours and the geographical proximity to the fast growing markets of the new EU member states in Central and Eastern Europe. In coping with the challenges of accepting structural adjustment and turning it to their advantage, the people in east Germany can draw on their extensive experience with upheavals – some radical – over the last 15 years since national reunification.