

## EAST GERMANY TODAY: SUCCESSSES AND FAILURES

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### Introduction

Twenty years after the collapse of the GDR the situation in the new Laender has improved greatly: standards of living for the population have increased substantially, the capital stock in the business sector has been modernized, and also the improved environmental situation and the well developed infrastructure are visible signs for the progress that has been achieved since 1989.<sup>1</sup> Nevertheless, in many fields of economic performance there are still substantial gaps between eastern and western Germany. A further problem is that the convergence of macroeconomic indicators, such as per capita GDP or productivity, has been proceeding only slowly for a long time. This raises the question about the causes and the perspectives for the eastern German economy. Another matter of interest is the current course of action as well as the need for action when it comes to economic policies.

The success and the failure of the “Economic Reconstruction in the East” (*Aufbau Ost*) are – on an aggregate level – revealed by a few overall key figures. The (nominal) GDP per capita is currently just under 71 percent of the average western German value<sup>2</sup> – in 1991 it was only 43 percent (cf. Table). In the area of productivity (measured by the nominal GDP per hour) the gap is smaller but still large: Eastern German productivity is currently at 76 percent of the average western German value. After a substantial rise immediately after reunification there has been almost no approximation to the western German level since 1997. Contrary to the development in the early 1990s there

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<sup>1</sup> For a more detailed comparison of the situation today with the economic situation in 1989, see Ragnitz, Scharfe and Schirwitz (2009).

<sup>2</sup> Unless otherwise stated, the calculations in this articles refer to eastern Germany including Berlin and western Germany without Berlin.

is no longer an effective convergence of economic prosperity between eastern and western Germany.<sup>3</sup>

The gap in the economic strength between eastern and western Germany reflects in particular the structural differences between the two regions, especially the diverging size of businesses and the virtual absence of company headquarters in the new Laender (DIW et al. 2002, 193ff.) As a result, certain value-added activities (especially in the area of research and development) are under-represented in eastern Germany, export orientation is low and economics of scale induced by larger production series often cannot be taken advantage of.

Above all, the eastern German economy does not succeed in generating sufficient income through the sale of goods and services outside the region; rather, a relatively high proportion of the domestic demand is financed by the federal government, the western German Laender and the social security agencies. In 2005, these transfer payments (after deduction of tax revenues and social security contributions attributable to East Germany) reached approximately EUR 70 to 80 billion; one fifth of the domestic demand is financed by funds from outside East Germany (Blum et al. 2009). In this respect, the economic development in the new Laender is still not “self-supporting”.

<sup>3</sup> For corresponding calculations for individual federal states, see also Berthold and Kullas (2009).

Table

Indicators of the convergence process in eastern  
Germany: nominal gross domestic product  
– Western Germany = 100 –

Year	GDP per capita	GDP per employee	GDP per hour
1991	42.9	44.5	44.3
1995	67.1	72.2	65.9
2000	67.2	75.7	70.1
2005	69.5	78.6	74.3
2006	69.9	78.5	74.4
2007	70.3	78.5	74.9
2008	70.9	79.0	75.6

Source: Arbeitskreis VGR der Laender; calculation by the Ifo Institute.



One consequence of the weak overall economic development since the mid-1990s is the unsatisfactory labor market situation in the new Laender. Although the unemployment rate dropped from more than 20 percent below 15 percent, it is still twice as high as in western Germany (7.2 percent in 2008). The decline in unemployment in recent years is only partly due to an increase in employment; more important is the decline in labor supply caused by a shrinking working-age population.

Considering all of this, a significant gap can still be observed between eastern and western Germany 20 years after unification, with no evident signs of a rapid improvement. What are the reasons for the slow catching-up process in the new Laender?

### **History matters: causes for economic backwardness**

In order to explain the deficits of the “economic reconstruction of the east” described in the previous paragraph, it is necessary to look at the strategic decisions which were taken in the early 1990s. In doing so, the aim is not to denounce these political decisions. It is not only futile to argue about what could have been done differently – one also has to consider that many of the decisions at the time had to be taken under time pressure and without recourse to historical experiences or access to empirical economic research. In this respect, it was inevitable that developments initiated at the time appear problematic or even counterproductive in retrospective.

It is important to keep in mind the historical background: In the late autumn of 1989, the GDR was not only politically, but above all economically, ruined. The mass protests of 1989 not only mirrored the popular outrage with regards to the constrictions of personal and political rights of freedom. Above all it reflected the all-around dissatisfaction with the insufficient supply of goods and services and the overexploitation of the natural environment. The actual situation was even a lot more dramatic than was known to the public. The governmental planning authorities observed in a confidential study in October 1989 that the GDR was close to insolvency (Schürer et al. 1989). Due to the neglect of capital spending for many years in favour of private consumption, the capital stock was to a large extent in a bad state and production downtimes were a common occurrence. This led to a failure to reach the state-established production targets. Additionally, the technological efficien-

cy of the eastern German economy and the infrastructure was not at its best. The authors of the study concluded that the reconstruction of the eastern German economy would require the reduction of living standards of the people by at least one third, while introducing free-market elements into the GDR economy at the same time.

In view of this situation, eastern German enterprises would not have had a real chance against western German competitors – even if the conditions of unification had been more favorable. The situation was worsened by the politically motivated decision to establish a currency union between GDR and FRG with a rate of conversion of 1 Mark to 1 DM (for flow variables) in return for an almost complete acceptance of the western German social market economy. For eastern German companies this meant the equivalence of a 400 percent upward revaluation, with the result that products from the GDR were virtually impossible to sell abroad.

A lower conversion rate, however, would have provided only short-term survival: in this case, open borders and the resulting migration flows would have led to massive wage increases. The consequences would have been the same. The only real alternative would have been the continued existence of two separate economic areas, which due to obvious political reasons was not a realistic option.

For stock variables (saving accounts of the population and company debts) a general exchange rate of 2 GDR marks = 1 DM was decided on (certain special rules for private savings applied). The reason for this was the attempt to skim the eastern German excess of purchasing power in order to curb inflationary tendencies. The disadvantage was that private financial wealth, which was already quite small in East Germany, was substantially reduced. This led to several consequences: firstly, many of the companies that were set up after the monetary union had only a narrow capital base. Secondly, private eastern German households only had small assets, which has been the case until today. This has probably added to the increased risk sensitivity of the eastern German economy (IWH 2009).

The monetary, economic and social union (*Währungs- Wirtschafts- und Sozialunion*), implemented on 1 July 1990 may – from an economic perspective – be considered a mistake (Sachverständigenrat 1990), but the union had the undeniable advantage of ren-

dering the market-based renewal process in the GDR irreversible. Possible attempts to implement a step by step transition were prevented from the very beginning. The price for this was, however, the almost complete collapse of the eastern German economy. The responsible politicians, misjudging the real situation of the eastern German enterprises and overestimating the market-based incentives, accepted that price because they acted on the assumption of a second *Wirtschaftswunder* (Willgerodt 1990). It was only in the spring of 1991 that politicians realized that the economic renewal in eastern Germany would need extensive political support. The introduction of a wide range of funding policies followed (BMW 1991).

Even though the take-over of the West German model of the social market economy was one of the fundamental conditions for the rapid reunification of Germany, in retrospect one has to consider the complete conferment of the West German legal system to the new Laender more critically. Already in the late 1980s, extensive deregulation measures designed to strengthen economic dynamics were discussed in western Germany. Keeping in mind that the eastern German population was not familiar with the western German legal system, it would have possibly been wiser to establish (at least outside the core areas of the market-based system) a less complex regulation system in the new Laender. Relaxed regulations for eastern Germany were allowed only in certain areas (non-introduction of the trade capital tax, accelerated planning and approval procedures). Furthermore, the politically motivated decision to give priority to the return of private property over payment of compensation led to a massive hindrance to investment as the relevant claims had to be identified and made legally binding in a time-consuming process. This led to the effect that rather than taking over existing companies, investors tended to set up new businesses in new locations unburdened by old liabilities. It was only in 1992 that this principle was virtually reversed by the so-called Investment Priority Act (*Investitionsvorranggesetz*; Bundesamt zur Regelung offener Vermögensfragen 2001).

The second great challenge was the transfer of the state-owned eastern German companies into private responsibility. This task lay with a newly founded privatization agency (*Treuhandanstalt*) which was supposed to privatize the state owned firms as quickly as possible. If this was not possible, the *Treuhandanstalt* could either carry out initial reconstruction measures or initiate the closing down of companies where the

former made no sense. The *Treuhandanstalt* managed to fulfill this task quickly – within only 4 years 14,600 companies and parts of companies were handed over to new proprietors; for 3,700 companies liquidation was initiated. However, in the case of many companies, massive financial concessions were necessary in order to find new investors. As a consequence, the privatization process ended in a total loss of more than EUR 100 billion. The reason for this was mainly the hurry with which privatization was pushed and also the fact that due to the wage increases in 1990 and 1991 many companies could only be sold at a loss. Different privatization strategies, i.e., participation models, could have possibly prevented the losses of the *Treuhandanstalt* (Sinn and Sinn 1992, 133 ff.).

But again there was no real alternative to privatizing state-owned firms, because it was agreed upon that their existence was incompatible with a market-based system. Also, a reconstruction of non-competitive companies before privatization would probably have been even more expensive due to a lack of incentives for an efficient allocation of resources. Furthermore, this would not have increased the chances of privatization because the course for the future development of the companies would have been set by public authorities. Nevertheless, the strategy of the *Treuhandanstalt* to dismantle companies prior to privatization has to be regarded rather critically – especially with view to the further economic development in eastern Germany. This strategy was at least partly responsible for the destruction of existing networks within the given structures. Also the fact that the *Treuhandanstalt* sold most of the companies to investors from western Germany or abroad must be regarded as a disadvantage (despite the benefits these firms gained by fast access to resources via the respective holding company). In the end this led to a far-reaching heteronomy of the eastern German industry in the new Laender. And finally, it cannot be denied that many investors were only interested in acquiring state-subsidized production facilities (“extended workbenches”). Elements of the value added chain that did not fit their respective company concept were closed down in eastern Germany. Especially more complex elements of the value added chain (like sales, administration as well as research and development) are therefore still under-represented in eastern Germany today.

A further burden for the economic development in the new Laender was wage policy. Even though the initial agreements for a fast harmonization of the eastern and western German wage system (reached

in expectation of a rapid convergence) were withdrawn rather quickly; still, the hourly wage in the new Laender rose – already between 1991 and 1995 – by about almost 54 percent. In 1991 they reached only 55 percent of the western Germany level, but until 1995 an adjustment to a level of more than 70 percent was achieved – while the statistically measured productivity on an hourly basis reached only 66 percent of the western German reference value. It does not come as a surprise that wages that are not in line with productivity caused many companies to close down and destroyed jobs, especially in the industrial sector. Furthermore, this added to a decreasing attachment to collective labour agreements in the new Laender – only 25 percent of all companies apply a collective labour agreement.<sup>4</sup> While according to WSI<sup>5</sup> the official wage contracts in eastern Germany have reached 97 percent of the western German standard, the adjustment of the effective wages per hour lies only at 78 percent. Unit labour costs which were more than one quarter above the western German standard at the beginning, have by now reached the same level.

However, the evaluation of the wage development in eastern Germany is still ambivalent: even though wages in eastern Germany are too high to allow for a higher level of employment, they are at the same time too low to stop the movement of labour, especially of young and qualified people. The result is a deterioration of the human capital base in the new Laender together with the necessity for high social transfers to support people unable to find employment in eastern Germany.

The obvious way out (creating more jobs via state-subsidized wages; Akerlof et al. 1991) was not pursued, primarily due to regulatory reasons: the promotion of firms should only provide initial funding and not establish a lasting subsidy. Instead, promotion of economic development was designed – besides the general improvement of locational conditions in the new Laender (transport and communication infrastructure and housing conditions) – to reduce the cost of capital substantially. This was supposed to provide investment incentives and to help relieve the lack of financial resources in eastern German companies. Furthermore interest-reduced loans, direct investment support (via investment grants and tax ben-

efits) and special depreciation allowances were provided. In total, these measures led to a temporary reduction of capital costs for industrial investment in eastern Germany of up to -5 percent. This meant that even investment projects with a negative rentability were – due to state subsidies – still worthwhile from an economic point of view (Sinn 1995). Naturally, this did not contribute to a long-lasting increase in the production potential in the new Laender; in fact quite the opposite is true. It was the cause for the structural adjustments that started in the mid-1990s. Another result was that despite extensive capital spending only few new jobs could be created.

As time went by, the malfunctioning of the economic system triggered by policies to promote the economy was corrected by cutting the possibilities to receive public aid. However, not only investment but also research and development in the new Laender still receive substantial subsidies. Besides the obvious misallocation of scarce resources, this has also led to inefficiencies in the production process (DIW et al. 2003). A further possible consequence was a habituation effect (for the provider of aid as well as for the recipient). In this respect, the assessment of the impact of public support policies is rather ambivalent.

To be sure, without measures to promote the economy, the development in eastern Germany would have been even less favorable. Due to rather adverse conditions regarding location (especially concerning infrastructure) not many investors would have put their money into the new Laender, if there had not been appropriate incentives. So it is not the fact of promoting subsidies as such that has to be regarded critically, but their implementation.

Furthermore, the proven and tested western German socio-political instruments were transferred to eastern Germany to support the radical change in the new Laender: early retirement of older workers (as a reduction of labor supply), granting of short-term allowances (as a substitute for open unemployment), job-creating measures of different kinds (as a socio-politically motivated provision of alternative employment, as a bridge into the first labor market and for the fulfillment of social tasks), qualification programs and other measures. In retrospect, these instruments of the “second labour market” also have to be regarded critically, as the intended reintegration of participants into regular employment was not really successful (on the contrary, often it became more difficult). Partly, habituation effects of the persons af-

<sup>4</sup> See SÖSTRA (2009), p. 103. Another 29 percent of companies follow collective labor agreements without having entered a commitment to comply.

<sup>5</sup> Information from the WSI-Tarifarchiv: [http://www.boeckler.de/549\\_20871.html](http://www.boeckler.de/549_20871.html)



ected were the result, which weakened their ability to be pro-active. Also, negative effects on the competitive situation on the local labor markets could not be avoided. It was only with the general re-orientation of the labour market policy in the course of the so-called “Agenda 2010” (as of 2003) that these deficiencies were slowly corrected.

The interaction of the described measures and decisions set the scene for the economic development in eastern Germany after reunification – thereby, alternative development processes were rendered impossible or made at least very difficult. The bigger part of the problems that eastern Germany has to deal with today has to be understood as the result of the after-effects of the GDR and as a result of the political decisions taken during the transformation processes in the new Laender. The institutional change of the command economy in the GDR into a free market economy was accomplished quickly; for the effective adaptation much more time is needed. However, this means that special measures are still necessary to support the economic reconstruction of the east.

#### **Political consequences: a 10-point agenda for the new Laender**

The poor economic power in the new Laender on the one hand and the dissatisfactory labor market situation are – from a political point of view – not acceptable. After all, the German constitution, article 72, section 2 requires the establishment of “equal living conditions” throughout the federal territory. Despite the indeterminacy of the term (Barloesius 2006), it is clear that this aim has not yet been achieved. Furthermore, the continuing gap between eastern and western Germany constitutes a social problem that can lead to disenchantment with the political order and to anti-democratic tendencies. Hence, in the new Laender there is a continued need for special measures.

The selection of adequate measures has to take place against the background of current and future restrictions for stronger economic growth in the new Laender. In this context it is essential to consider the demographic development: already between 1989 and 1999 the population in the area of the former GDR (new Laender and eastern Berlin) shrank by 1.3 million people (–8 percent); since then the decline in population has continued almost at full speed (in eastern Germany, including Berlin: –775,000 people;

–4,5 percent). Responsible for the decline in population are – in equal parts – the net emigration (balance of migration 2001–07: –309,000 people) and the birth deficit (balance of natural population development 2001–07: –374,000 people). Two implications arise from an economic perspective: on the one hand, due to the selective migration flows – especially young and well qualified-people migrate to West Germany – the human capital situation deteriorates. On the other hand, due to the above-average decline in the number of the working-age population – the subsequent cohorts are quantitatively smaller than the cohorts that are going into retirement. A general shortage of the labor force is the result. Since this process will continue in the next few years, the growth forecast for the new Laender, especially in the peripheral regions with above-average demographic decline (Ragnitz 2007) – is worsening. There is the risk of a gradual depletion – a “passive reconstruction”, as it were. Additionally, with a declining population, the demand for “non-tradable goods” is expected to go down. This will also have a negative effect on economic perspectives.

The second negative factor for the future economic development in eastern Germany is an apparent narrowing of the fiscal scope. The so-called “Solidarity Pact II”, which regulates the above-average financial support in favor of the new Laender will expire in 2019; furthermore, from 2013 on, the EU subsidies will gradually come to an end. As a result, not only the existing supporting preferences for the new Laender will have to be phased out. The eastern German Laender and local administrations will be forced to make cutbacks in their spending, which at the moment is 20 percent above the per-capita-level of the financially weak western German states, slowing down the overall economic development further.

Finally, there is also the risk that already existing production capacities in the new Laender will not remain there permanently. Especially in the industrial sector “extended workbenches” prevail, which do not often form close ties in the region and are dependent on globally operating affiliated conglomerates. It is possible that these will be affected by production relocation, when the plants built in the 1990s are technologically out-of-date and written off entirely. Only in a few sectors and fields of technology – those still at the beginning of the production cycle (examples are the opto-electronic industry or the manufacture of equipment for producing renewable energies) – were the new Laender successful in at-

tracting internationally operating companies.<sup>6</sup> However, their quantitative importance is too small in order to actually compensate for possible shrinkage tendencies in other sectors.

The still existing income gap between eastern and western Germany is partly a reflection of the different locational conditions in the two parts of the country and therefore probably also have to be accepted in the long run (Ragnitz 2009). To some extent, however, this also mirrors the after-effects of the transformation process, which are in danger of becoming permanent. Should this be the case, there will still be the need for (special) efforts to “accelerate” the economic reconstruction of the east. Against this background 10 points are listed below, which can provide new momentum to the reconstruction program in the east:<sup>7</sup>

1. *Support of the implementation of regional development concepts through global allocation of funds:* Due to the growing differentiation of the economic development in the new Laender, regional development strategies are gaining importance. These have to differ according to local conditions and should also take into account regional preferences in an appropriate manner. Accordingly, a mere orientation to the western German model is not appropriate. Such concepts can only be properly implemented by the respective local players. In order to support this, the federal and state governments should provide the appropriate financial funds; of course the use of the funds has to be carefully monitored. The InnoRegio competition, which in its core focuses on a lasting mobilization of the regional players, could be a role model (DIW 2004).
2. *Reorientation of investment promotion:* In future, investment promotion should be used primarily as an instrument of settling policy – being limited to new investments that can plausibly point to alternative locations outside the new Laender. It should be possible to transfer funds that are not spent in one year to the next year(s). It also makes sense not to link the amount of funding to the amount to be invested but to the number of jobs created, in order to avoid excessive capital intensification of production. However, a sectoral concentration on supposed “future fields” is not recommended, because this would lead to significant distortions and in the worst case scenario would not be sustainable anyway. An “industrial policy” of this sort makes sense on the federal level but certainly not on regional or state level.
3. *Reinforcement of innovation:* General economic support with the aim to “maintain” industries should be redirected to innovation activities in the companies. This would result in improving the export performance of eastern German firms. Given the difficulties in selecting projects that deserve support, the policy instruments should be as technologically neutral as possible – for example by implementing a general tax relief for innovation expenditures (Expertenkommission Forschung und Innovation 2008, 32ff).
4. *Improvement of enterprise start-up promotion:* Due to unresolved difficulties in finding successors, the new Laender face the threat of an entrepreneurial gap; at the same time the public image of “the entrepreneur” is still colored by prejudices. Besides increased information and education, active encouragement for the creation of new businesses and takeovers is required. To achieve this, potential company founders with a lack of financial resources could be provided with capital (i.e., via long-term subordinated loans), which does not necessarily have to be subsidized. Also, certain sectors of the population that in the past were not active in setting up their own businesses (women, unemployed persons, older persons in employment) could be encouraged to become entrepreneurs. The focus of attention should also (and more than in the past) concentrate on the future viability of proposed new businesses.
5. *Removal of existing infrastructural deficits:* Although the standard of the infrastructure in the new Laender is generally high, there are still bottlenecks in some parts; for example with regards to international traffic to Poland and the Czech Republic or with regards to gaps in the long-distance road and rail networks. Keeping in mind the aim of an improved integration of the eastern German Laender in the international division of labour, these gaps should be closed as quickly as possible. In the area of research infrastructure (universities and non-university research institutions), a better compatibility with existing industrial structures should be encouraged – especially with a view to the need for skilled personnel and technological transfer.
6. *Solving the problem of the impending shortage of skilled labor through improved education and training:* Not least because of the demographic devel-

<sup>6</sup> For the positioning of eastern Germany in such “future areas of growth”, see, e.g., HIERO (2008).

<sup>7</sup> Even though there is a discussion of alternative development goals for the new Laender, in the following it is assumed that an (approximate) equalization of living standards in eastern and western Germany on the basis of the western German economic and social model continues to be the main political aim.

opment, there will be a noticeable shortage of highly-qualified, well-trained professionals in the new Laender in a few years. At the same time, the unemployment rate of persons with low qualifications and no training is expected to remain high. This is due to the fact that the reduction of the labour supply is matched by a reduced demand for labour (Ragnitz et al. 2007). This is an argument for increased qualification efforts, including further training for persons already in employment. The issue here is not only the provision of public funds, but also an improvement in the quality of the existing further education and training schemes.

7. *Accepting the demographic challenge:* Population shrinkage and ageing in eastern Germany cannot be stopped. What is needed are adaptation measures for the demographic change. This includes a review of all political measures with regards to their demographic suitability. Additionally, incentives for settlement structures closer to agglomeration centers should be offered and public services of general interest in regions with shrinking population be reduced to a basic level while, at the same time, providing more freedom for self-initiative projects.
8. *Opening up options for regional-specific regulations:* Deregulation is a perennial problem in the discussion about the reconstruction of eastern Germany. Even though it is not easy to make specific proposals, the legislative sovereignty should be transferred back to the Laender in all the cases where a legitimate interest in a federal regulation cannot be demonstrated. If necessary, more extensive use could be made of the possibility to deviate – for a limited amount of time – from federal law.
9. *Improving links with Central and Eastern European countries:* Poland and the Czech Republic and other Central and Eastern European countries are, due to their geographic proximity, virtually “natural” target countries for the international activities of eastern German firms. Besides the trade with goods and services, cooperations especially in production as well as in research and development should be pursued. Furthermore, a stronger integration of the regional labour markets on both sides of the border can be beneficial. So far, the existing potential in this area has not been fully used. This is partly due to mental barriers as well as due to lack of language skills. Here we find various points of departure for politicians to take.
10. *Strengthening overall German economic growth:* Eastern Germany will most likely be able to close

the gap to western Germany if the economic development in the whole of Germany gains momentum. This will not only improve sales opportunities for eastern German firms but also more money will be invested, with the result that locations in the new Laender could increasingly come into focus for western German enterprises. Thus it is necessary to look beyond the current economic and financial crisis for new ways to accelerate overall German growth rates.

Needless to say, these 10 points, which were only touched on here, are not exhaustive. However, it is above all important to realize that a policy of “business as usual” and a restriction to only all-German measures would not solve the problems in eastern Germany. It would also be wrong to refer all responsibility to the authorities of the eastern German Laender. Unless a self-supporting development can be triggered in eastern Germany, the need for financial help in the new Laender (besides the federal fiscal compensation scheme) will continue. This concerns especially social security expenditures and will also have an impact on the development in the west. In this respect, the federal government also has to show commitment in the new Laender beyond that made in the Solidarity Pact II.

Is it realistic to expect eastern Germany to reach at least the level of the financially weak western German Laender by 2020? Without additional political efforts chances are not good, at least not as good as the federal government would have us believe. At the beginning of a new legislative period this should be seen as an opportunity to stop and think about measures which could help to achieve this “elusive” aim.

## References

- Akerlof, G., A. Rose, J. Yellen and H. Hessenius (1991), “East Germany in from the Cold: The Economic Aftermath of the Currency Union”, *Brookings Papers on Economic Activity* 1, 1–106.
- Barlösius, E. (2006), “Gleichwertig ist nicht gleich” [“Equal Is Not the Same”], *Aus Politik und Zeitgeschichte* 37, 16–22.
- Berthold, N. and M. Kullas (2009), *20 Jahre Mauerfall – Konvergenz in Deutschland? [20 Years after the Wall Fell – Convergence in Germany]*, *Wirtschaftswissenschaftliche Beiträge des Lehrstuhls für Volkswirtschaftslehre, insbes. Wirtschaftsordnung und Sozialpolitik an der Universität Würzburg*, no. 105, Würzburg.
- Blum, U., J. Ragnitz, S. Scharfe and L. Schneider (2009), *Regionalisierung von öffentlichen Ausgaben und Einnahmen [Regionalization of Public Expenditure and Income]*, IWH Sonderheft, in press.
- BMWi (1991), *Arbeitspapier für eine “Strategie Aufschwung-Ost” [Working Paper for a “Strategy on the Economic Reconstruction in the East”]*, mimeo, Bonn, 12 February.

Bundesamt zur Regelung offener Vermögensfragen (2001), *Offene Vermögensfragen, Versuch einer Bilanz [Open Questions on Assets, Attempt at an Analysis]*, Berlin.

DIW (2004), "Info-Brief der wissenschaftlichen Begleitforschung der InnoRegio-Initiative" ["Information on the Research Accompanying the InnoRegio Initiative"] no. 10, Berlin.

DIW, IAB, IfW, IWH, ZEW (2002), *Fortschrittsbericht wirtschaftswissenschaftlicher Institute über die wirtschaftliche Entwicklung in Ostdeutschland [Economic Institutes' Progress Report on the Economic Development in Eastern Germany]*, IWH Sonderheft 3, Halle.

DIW, IAB, IfW, IWH, ZEW (2003), *Zweiter Fortschrittsbericht wirtschaftswissenschaftlicher Institute über die wirtschaftliche Entwicklung in Ostdeutschland [Economic Institutes' Second Progress Report on the Economic Development in Eastern Germany]*, IWH Sonderheft 7, Halle.

Expertenkommission Forschung und Innovation (2008), *Gutachten 2008 [Expert's Report 2008]*, part C, Berlin.

HIERO (2008), *Wirtschaftliche Zukunftsfelder in Ostdeutschland [Future Economic Fields in Eastern Germany]*, study commissioned by the Bundesministerium für Verkehr, Bau und Stadtentwicklung, Rostock.

IWH (2009), "Ostdeutsche Wirtschaft im Jahr 2009: Aufholen in der Weltfinanzkrise? – Rechnerisch scheinbar, in Wirklichkeit nicht!" ["Eastern German Economy in 2009: Catching up in the World Financial Crisis? It Appears So But Not in Reality!"], *Wirtschaft im Wandel* 8, 309–43.

Ragnitz, J. (2009), "Angleichung der Lebensverhältnisse in Ostdeutschland: Eine regional differenzierte Analyse" ["Convergence of Living Standards in Eastern Germany: A Regional Analysis"], *ifo Dresden berichtet* 16 (4), 28–38.

Ragnitz, J., S. Scharfe and B. Schirwitz (2009), *Bestandsaufnahme der wirtschaftlichen Fortschritte im Osten Deutschlands 1989-2008 [Assessment of Economic Progress in Eastern Germany]*, Ifo Dresden Studien, in press.

Ragnitz, J., S. Eichler, B. Grundig, H. Lehmann, C. Pohl, L. Schneider, H. Seitz and M. Thum (2007), *Die demographische Entwicklung in Ostdeutschland [The Demographic Development in Eastern Germany]*, Ifo Dresden Studien no. 41, München/Dresden.

Sachverständigenrat (1990), "Brief des Sachverständigenrates vom 9. Februar 1990 an den Bundeskanzler" ["Letter of the German Council of Economic Experts of 9 February 1990 to the Chancellor"], reprinted in Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung, JG 1990/91, 306–08.

Schürer, G., A. Schalck, E. Höfner and A. Donda (1989), *Analyse der ökonomischen Lage der DDR mit Schlußfolgerungen, Vorlage für das Politbüro des Zentralkomitees der SED [Analysis of the Economic Situation of the GDR with Conclusions: Presented to the Politburo of the SED Central Committee]*, 30 October 1989, Berlin, mimeo.

Sinn, G. and H.-W. Sinn (1992), *Kaltstart, Volkswirtschaftliche Aspekte der deutschen Vereinigung [Cold Start: Economic Aspects of German Unification]*, 2nd edition, Tübingen.

SÖSTRA (2009), *IAB-Betriebspanel Ost, Ergebnisse der dreizehnten Welle 2008 [IAB Company Panel East: Results of the 13th Wave 2008]*, Berlin.

Willgerodt, H. (1990), *Vorteile der wirtschaftlichen Einheit Deutschlands [Advantages of the German Currency Union]*, Institut für Wirtschaftspolitik an der Universität zu Köln, Cologne.