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The transformation of a socialist economy: lessons of German unification

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Kiel Working Papers

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THE TRANSFORMATION OF A SOCIALIST ECONOMY
- Lessons of German Unification -

by

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I. Economic Transformation: The Principal Tasks

Last year's euphoria about democratization and economic liberalization in Central and Eastern Europe has largely vanished. Current news on the region is dominated by reports on inertial transformation processes and the economic as well as social adjustment burden. This does not only apply to countries like Czechoslovakia, Hungary or Poland, but also to the former GDR where an immediate second German "Wirtschaftswunder" was widely expected until recently.

Considerable transition problems can hardly be avoided once fundamental economic reforms are implemented in countries characterized by macroeconomic instability, pervasive government encroachment on investment and production, seriously deficient incentive systems, the lack of appropriate institutions, and infrastructural decay. But the degree and duration of transition problems could be contained if economic reform programs were credible and tailored to the specific starting conditions, and serious inconsistencies among reform elements were avoided by an economically sound timing and sequencing. Major areas of reform are: institution building and privatization, macroeconomic stabilization, and micro reforms directed towards internal deregulation and external liberalization.

- The institutional infrastructure relates to the rules to be followed by economic agents, i.e. the economic constitution of a country (for a more detailed presentation, see Siebert

[1991b, pp. 6ff.]). Important elements of what the Freiburg school calls the "Wirtschaftsordnung" include the legal system (Privatrechtsordnung), most notably contract and company law, a two-tier banking system with an independent central bank, the delineation of government and private sector, as well as clearly defined and enforceable property rights. The latter provide the institutional device by which decisions can be decentralized and microeconomic costs and benefits are related to the specific producer.

- Macroeconomic stabilization encompasses the elimination of a monetary overhang as well as the reduction of unsustainable fiscal and current account deficits. Monetary reform aims at creating a stable and convertible currency which is mandatory for the functioning of the price mechanism and efficient resource allocation. Excess domestic demand has to be removed by expenditure reduction policies such as monetary and fiscal restraint. Government expenditures must no longer be financed by printing money, and an appropriate tax system has to be developed. International competitiveness may be improved by devaluation induced expenditure switching.
- Reforms at the micro level relate to the various facets of the soft budget constraint that characterizes the typical socialist firm, e.g. its ability to achieve rents because of non-competitive markets and to shift firm-specific costs and risks to the government [Nunnenkamp and Schmieding, 1991]. A comprehensive set of measures is required to tackle this problem. Most

notably, price deregulation has to be accompanied by intensified competition via the break-up of monopolies and the abolition of the strict market segmentation. Competitive pressure should be further increased by external liberalization. The dismantling of trade barriers provides strong incentives for enterprises to specialize according to their comparative advantages; and capital account liberalization helps to attract more investment funds. Additionally, factor market deregulation is necessary for optimizing the allocation of both capital and labour.

Third World experience suggests that structural adjustment programs are highly likely to fail if attempts to reform remain piecemeal and inconsistent [Papageorgiou et al., 1991]. Hence, the question of timing and sequencing figures prominently in the ongoing debate on economic transformation in Central and Eastern Europe. It is now widely accepted that the institutional infrastructure has to be established without delay. But controversies persist on whether large-scale privatization should proceed quickly because it provides the basis for other reform steps [Lewandowski and Szomburg, 1989], or rather be postponed until after macro stabilization has been achieved and micro reforms have been implemented [Lipton and Sachs, 1990]. It is no longer disputed that stabilization attempts are not credible unless they are closely related to the principal micro reforms [e.g. Kornai, 1990]. Nevertheless, stabilization is considered to be of first priority by some economists, especially in the case of significant macroeconomic disequilibrium [e.g. Edwards, 1989]. Different

views also exist on the phasing and degree of trade and capital account liberalization.

It is thus not surprising that countries in Central and Eastern Europe have followed different avenues of transition to a market economy. Hungary has a fairly long history of piecemeal reforms, the credibility of the recent more comprehensive attempt being at stake presently. Poland is suffering from a considerable adjustment crisis in the aftermath of its far-reaching stabilization and liberalization program of early 1990. Until recently, Czechoslovakia focussed on developing the institutional infrastructure required for a market economy, while the implementation of economic reforms was delayed. In sharp contrast, an unprecedented shock approach has been applied in the former GDR. The above mentioned major reform elements were implemented in one stroke once the state treaty had been concluded by the two German governments in May 1990.

It is yet too early to conclusively judge the relative success or failure of the different approaches towards economic transformation. Moreover, the specific starting conditions of the post-communist economies render easy generalizations impossible. Especially the peculiarities of the German case may seriously limit the scope of lessons to be drawn for other reform-minded countries. This is evident from the summary presentation of the German Economic, Monetary and Social Union (GEMSU) in Section II and the discussion of the advantageous conditions under which the market economy is implemented in the ex-GDR. Nevertheless, strong

similarities exist among the countries in transition as concerns the basic problems of real adjustment, e.g. sectoral restructuring, reorientation of trade, the behaviour of the socialist firm and transformation of ownership, and improvement of infrastructure (Section III). Similarities also prevail with respect to short-term transition costs; Section IV actually reveals a relatively strong decline in economic activity in the case of the ex-GDR. The causes of this slump are analysed in Section V. Section VI concludes and summarizes the lessons to be drawn from the German approach towards economic transformation.

II. Economic, Monetary and Social Union: The German "Experiment" in a Favourable Environment

1. Major Elements

Notwithstanding strong evidence that transition costs can be reduced by an appropriate timing and sequencing of reforms, the policy course followed in reality by governments is not only determined by economic rationality; it is rather the result of a broader set of politico-economic considerations. This is clearly the case for Germany which provides a rather unique experience in the sense that, from the very beginning, the political decision makers viewed the economic integration of the two Germanies as part and parcel of political unification. Arguably, economic decisions have even been instrumental in achieving the principal aim of making the process towards unification irreversible [Hoffmann, 1991]. It can be hypothesized that, because of such broadly

defined politico-economic rationality, the transition costs in terms of production losses and employment problems are much more pronounced than would have been the case if pure economic logic had prevailed.

This reasoning refers to the surprise move in February 1990 of the West German chancellor towards a quick currency union in the first place.¹ In the aftermath of the March 1990 elections in the GDR, the terms of the German Economic, Monetary and Social Union (GEMSU) were negotiated, the corresponding state treaty was concluded in May, and GEMSU became effective on July 1, 1990.² The sweeping economic integration of the two Germanies subjected the centrally planned GDR economy to an unprecedented shock. Three months prior to unification, the DMark (DM) became the sole legal tender, replacing the East German Mark (M). The conversion rate of M 1 : DM 1 applied to recurrent payments, most notably wages, was heavily debated among economists; while politicians argued that a more realistic rate, which might have helped further segments of the GDR's industry to achieve international competitiveness, would have resulted in socially unacceptable wage gaps between East and West Germany and fuelled westward migration. By contrast, a conversion rate of M 2 : DM 1 applied to domestic financial assets and liabilities, except savings of GDR residents of M 2000 - 6000 per capita (depending on age) which were conver-

¹ For an overview on the background and plans for reform in the GDR, see Mayer and Thumann [1990].

² Subsequently, the drive for political union accelerated. According to the Unity Treaty, the GDR became part of the Federal Republic of Germany on October 3, 1990.

ted at the preferential M 1 : DM 1 rate. At the same time, the GDR government lost its monetary autonomy. Given the Bundesbank's traditional anti-inflationary stance, monetary destabilization was unlikely to become a major problem in the aftermath of the currency union [see also Lipschitz, 1990, pp. 6 and 16]. With the introduction of the DMark, East Germany participates in the benefits of a fully convertible currency.

Economic and social integration was achieved by the wholesale adoption by the GDR of West Germany's concept of "social market economy" with only few exceptions.¹ According to the state treaty, central planning and pervasive state interference into the GDR economy were abolished and replaced by the principles of private property, competition, free prices, as well as free movement of labour, capital, goods and services. Microeconomic deregulation was even more embracing than in West Germany in 1948 [for details, see Schmieding, 1991a]: Apart from rents and public utilities all price controls were lifted, and wage determination was left to collective bargaining of employers and labour unions. Moreover, sweeping liberalization took place at the external front. The GDR became fully integrated into the European Community and world capital markets. The isolation of the economy from international competition ended abruptly.

Among institutional reforms, the introduction of a market-based banking system in the GDR (with unrestricted capital flows,

¹ Among the exceptions, the different treatment of short-time work is noteworthy.

freely determined interest rates, and full access to world capital markets) figures prominently.¹ The reorganization of existing firms, i.e. demonopolization of the so-called "Kombinate", efficiency enhancement, and privatization, constitutes another crucial prerequisite to help real adjustment. Demonopolization was at least partly achieved by splitting up 316 "Kombinate" into 8000 legally independent firms, which were placed in a Trust Fund (Treuhandanstalt). The mandate given to the Trust Fund included the liquidation of non-viable firms, the restructuring of potentially viable enterprises, and privatization where possible. It was decided that, in principle, companies expropriated after 1949 (and before 1945), as well as expropriated land and real estate, would be returned to the previous owners. Compensation would be paid, however, if restitution was not feasible or constituted a major deterrent to private investment.

2. East Germany's Advantages

Until German unification, the East German economy was no special case in Central and Eastern Europe. The economic order as well as the political system were of the standard Soviet type. The GDR was roughly comparable to the Czech lands (Bohemia and Moravia) in terms of most socio-economic indicators, notably living standards, the level of economic development, industrial traditions, the state of the infrastructure, and the extent of environmental damages. With the collapse of communism, however, East Germany

¹ In effect, the major West German commercial banks have played an important role in the GDR's banking system since July 1990.

became a place apart; it had the opportunity to make use of one fundamental advantage: West Germany. The ex-GDR is rather small in comparison to West Germany with its well established and advanced market economy (26 per cent in terms of population, 8-10 per cent in terms of GDP). Hence, regardless of the details of the policies adopted, German unification implied per se that the pains of political and economic transformation were to become mere regional problems of a much larger economic unit. United Germany's overall stability would be only marginally affected by whatever difficulties the switch to a market economy in the eastern part would entail.

By virtue of German unification, East Germany could import the political stability and legitimacy of the Federal Republic. In a similar vein, GEMSU meant that the regime switch in East Germany was absolutely credible and definitely irreversible. Furthermore, East Germans gained access to the highly developed social security system of the West so that real adjustment costs could be automatically cushioned by public transfers. These factors are not only advantages per se; they imply a far greater freedom to conduct first-best economic policies than in all other post-communist countries. In Hungary, Poland, the CSFR and beyond, the short-term repercussions of potentially painful economic policies on the fragile political system have to be one of the major concerns of the reformers. As the March 18 elections in East Germany had revealed overwhelming support for rapid political and economic unification, there was much less need for an arduous process of internal consensus building than elsewhere. Decisions could be

taken swiftly and implemented instantaneously.

In particular, the East German advantages relate to the institutional infrastructure as well as to macroeconomic policies and the prospects for real economic adjustment. The institutional infrastructure of a market economy has to be built from scratch in other post-communist countries. East Germany simply adopted the well-established laws and regulations of West Germany, which did not even need to be translated. Together with the establishment of the West German judicial system in the East, this implied that the fundamental institution of capitalism, i.e. private property rights, would be fully and lastingly respected. Hence, uncertainty of economic agents was reduced to the question whether previously expropriated property would be restituted. Many West German institutions extended their reach to East Germany, other institutions in the East could be remodelled in the Western image. Some transfers of human capital and administrative staff as well as other kinds of technical assistance were supposed to facilitate the implementation of the institutional reforms and the application of the new rulebook. The cultural proximity to West Germany and the dense net of contacts is likely to make it easier for East Germans to get used to the rules of the market quickly. It can even be argued that the extension of the West German unions to East Germany presented at least an opportunity for a rational wage bargaining in the East. Unlike the old or new unions in post-communist Europe, the West German unions are acquainted with a market economy and familiar with the need for a rough balance between wages and labour productivity.

The macroeconomic problems of the late GDR were de facto solved with GEMSU. With the DMark replacing the East German Mark, the accumulated East German monetary overhang was spread over a much larger currency area. Hence, the threat of a rising price level after price liberalization was diminished;¹ the future East German inflation rate is given by the rate of price increases for tradables in united Germany and the relative rise in prices for East German non-tradables.² East German fiscal problems were greatly eased by unification. Even to the extent that budget deficits of the new "Länder" will not be directly financed by Western transfers, East German public authorities are likely to benefit from the creditworthiness of the West, at least as long as the lenders can confidently assume that these credits are implicitly guaranteed by the federal government. Furthermore, the problem of the GDR's external debt de facto vanished for East Germany by courtesy of unification.

Even with respect to the process of real economic adjustment, East Germany's starting conditions appeared to be favourable. As

¹ With the currency union, the DMark money supply (M3) increased by 14.5 per cent [Deutsche Bundesbank, 1990, p. 4*] while the production potential of the DMark currency area was enlarged by roughly 8 per cent. The difference constitutes a potential for overall German inflation, albeit a manageable one. The Bundesbank may well succeed in neutralizing this unwarranted surge in the money supply by an appropriately restrictive monetary policy. Furthermore, the very fact that German unification has led to an exceptionally severe adjustment crisis may well induce East Germans to keep involuntarily accumulated money balances as voluntary savings for the time being.

² The latter will be a by-product of rent liberalization in the first place; and over the course of catching up with the West, market prices for non-tradables in the East will increase relative to those of tradables.

far as adjustment at the micro level is concerned, the critical question is whether firms can be privatized soon and whether managers of state firms do - or can be made to - react to market signals in a textbook manner and to care about long-run profitability almost as if they were controlled by private owners. Privatization should be much easier in the ex-GDR than elsewhere in Central and Eastern Europe due to political stability, generous social security provisions, unrestricted access to the world capital market, a fully convertible currency, and the transfer of administrative know how; and by virtue of German unification, the pool of talents from which new managers for private enterprises and state firms can be drawn is much broader. Also with regard to firms that remain in the hand of the state for the time being, there was reason to expect a comparatively flexible and efficiency-oriented reaction to market signals (for the strategic choices open to managers of state firms after the demise of central planning, see the subsequent section): Because of the clear irreversibility of the regime switch in East Germany and the political stability which may promise to make a rational discussion about the future for members of the old nomenclatura easier than elsewhere in post-communist Europe, the incentives to adopt an efficiency-oriented adjustment strategy appear to be comparatively strong for East German managers.

All in all, it is hardly to be disputed that the GEMSU has laid the ground for economic recovery of the ex-GDR in the longer run. Moreover, it has helped to ease the social burden of adjustment. At the same time, however, East Germany suffers from more or less

common problems of post-communist economies as far as real adjustment in the short run is concerned, and the particulars of the GEMSU may even have caused an extraordinarily severe transition crisis, as will be discussed in the subsequent sections.

III. Basic Similarities: Problems of Real Adjustment

The clear advantages the ex-GDR has in managing economic transformation, relative to other reform-minded countries, led to overly optimistic scenarios with regard to short-run economic recovery. Also, the comparatively favourable endowment with skilled labour, though constituting a major asset in the longer run, made many observers underrate the serious obstacles to real adjustment in the transition period. As concerns some critical adjustment problems, the ex-GDR reveals strong similarities with its neighbours in Central and Eastern Europe.

First, the physical and administrative infrastructure suffers from serious decay. Social overhead capital in transportation and communication is particularly deficient. For example, 45 per cent of the equipment in postal and communication services is older than 20 years [Institut für Internationale Politik und Wirtschaft, 1990]. The public administration in the former GDR lacks experience in dealing with markets and the institutional framework of a market economy. Recording of land titles and the licensing procedure for firms provide cases in point. A similar mismatch between the sweeping establishment of the institutional

infrastructure and the much more difficult task to develop the human skills required to efficiently handle the system is to be observed in the juridical sphere.

Second, the sectoral structure of the GDR economy is heavily distorted. It is biased towards agriculture and - to a lesser extent - manufacturing, and against non-government services [for details, see Siebert, 1990, p. 35]. In 1989, 47.2 per cent of total GDR employment was in agriculture, energy and mining, and manufacturing; the respective share amounted to only 37 per cent in West Germany. Employment in manufacturing was reduced by 13 per cent during the 1970-1989 period in West Germany, while it expanded by 10 per cent in the GDR. Moreover, GDR employment is heavily concentrated in sunset sectors and branches that have been declining rapidly in the West.¹

Third, integration into the international division of labour is significantly below world standards. The share of GDR exports in GNP is estimated at 25 per cent, while the respective share amounts to 40-50 per cent for Western economies of a comparable size. As a result of the intra-bloc specialization philosophy of the CMEA, more than 60 per cent of GDR exports were directed to these less demanding markets (West Germany: less than 5 per cent). The incentives to strive for quality improvement, technological progress, and better marketing were thus largely eroded.

¹ Taken together, agriculture, forestry and fishing, mining, clothing, and textiles accounted for 16.2 per cent of the GDR labour force, as opposed to merely 6.4 per cent in West Germany.

CMEA trade flows were determined by political bargaining so that the pattern of specialization did not (necessarily) reflect the comparative advantages of the GDR [Stehn and Schmieding, 1990].

Fourth, the capital stock is technologically outdated, physically run down, and economically and ecologically obsolete to a large extent. In the ex-GDR, only about one quarter of industrial equipment has been installed in the last five years (West Germany: 39 per cent); more than half is older than 10 years (West Germany: 30 per cent) and 21 per cent is even older than 20 years [Institut für Internationale Politik und Wirtschaft, 1990].

Most of the afore mentioned deficiencies that characterize the current situation in the ex-GDR, and Central and East European countries in general, can be traced back to the inherent flaws of a Soviet-type economic system and the typical behaviour of the socialist firm [Siebert, 1991a]. The socialist firm has been inefficient for a number of reasons: It was steered by quantity signals and protected from competition by central planning, market segmentation and import barriers. In factor and goods markets, prices were either non-existent (capital; environment) or determined through the central planning process. Most importantly, efficiency was eroded by the soft budget constraint, i.e. the socialist firm's access to subsidies and related privileges.

The transition to a market economy represents an unexpected shock to the socialist firm. This shock was particularly pronounced in the case of the GDR with all prices freed, complete integration

into international trade and world capital markets, the conversion rate of M 1 : DM 1 for current payments, and the non-existence of the exchange rate as a shock absorber. Such a dramatic change clearly reveals the inefficiency of the socialist firm. As a result, output is bound to fall. While transition problems cannot be avoided, their severity critically depends on the reactions of managers to the reform program. Under the pressure of declining traditional demand, private enterprises would seek new markets, cut costs, launch new products, and look for alternative channels of distribution. But this does not necessarily happen in post-communist economies when privatization is lagging behind or has not even been started [Winiecki, 1990, p. 773].

After the demise of central planning, rational self-interested managers of firms that are still in the hand of the state have a choice of three strategies (which are not always mutually exclusive) [Schmieding, 1991b]:

(1) Wait and see: Given their experience with piecemeal reform efforts in the past, managers might expect that also present reform programs will be diluted or completely abandoned once transition problems emerge. Their major interest then is to keep their job and avoid painful decisions. They will pin their hopes on subsidies and use their time to clamour for such subsidies from the state. This would probably result in the most unfavourable outcome envisaged by adjustment theory, i.e. significant cuts in output with maintaining the overstaffing of firms. While the likelihood of reform reversal appears to be extremely low in

the German case, readily available subsidies may still make this option attractive for managers.

(2) End games: Managers expecting that policy reforms will be sustained and being afraid that they will lose their job in the near future anyhow, have a particularly strong incentive to use their remaining time to enrich themselves at the expense of the state-owned firm. This may be achieved via ordinary theft or via some more sophisticated variants of "spontaneous privatization".¹ In this way, the firm's ability to adjust may be further eroded since the funds required for maintaining and modernizing its capital stock are diverted away. On the other hand, some variants of "spontaneous privatization" - disregarding the unpleasant distributional implications - may lead to the emergence of efficiently run private firms.

(3) Reputation building: Managers may run the firm as if it were privately owned already, at least within the confines in which they have to operate, if a future career in the management of a private firm is considered likely.² They may then try their best to establish their credentials via private-sector like adjustment efforts. Only this strategy would imply an economically efficient behaviour.

¹ Various opportunities exist in this respect. For example, managers of state-owned firms have created private enterprises while still in office. They have then transferred part of the state-owned firm's assets to their own enterprise by establishing close links between both units and specifying contract terms at the expense of the state-owned firm still managed by them [Schmieding and Koop, 1991, p. 8].

² Actually, some adjustment of this sort has been observed, e.g. in the case of Poland [Jorgensen, et al., 1990].

The built-in inefficiency of the socialist firm and the ambiguous incentives of managers suggest that privatization of existing firms should not be unduly delayed, in order to help real adjustment in the transition period. Private ownership is an important prerequisite to ensure that decisions in the firms are dominated by economic considerations, managers are controlled by the capital market, capital is allocated efficiently, and structural change is initiated [Siebert, 1991a; 1991b; 1991c; Collier and Siebert, 1991]. A major issue is by which institutional arrangement privatization can be achieved [Schmieding and Koop, 1991]. The options available differ especially with respect to the time they require: Providing access to the stock market is fairly time consuming in post-communist economies and subject to many preconditions even if firms were viable. By contrast, informal selling can proceed without delay, but runs the risk of "too low" selling prices with only one party on the buyer's side. The disadvantages of both extremes can be avoided by a formal bidding process which guarantees competition among potential buyers, quick injection of fresh capital and provision of new management. A voucher system represents another alternative [Lewandowski and Szomburg, 1989]. Vouchers defining titles to all state-owned enterprises would be handed out to the population and, in a later stage, exchanged against shares of specific firms.

The conditions for privatization differ among reform-minded countries in Central and Eastern Europe. In the German case, monetary stabilization has already been achieved, and the risk of policy reversal and exchange rate risk is largely absent. The potential

to attract new private capital is relatively large. This potential should be tapped quickly given that the opportunity costs of delayed privatization are particularly high in the German case: Any prolonged divergence in production and employment levels between East and West Germany would necessitate additional official transfers and may lead to an inefficient and costly structural policy.

Under the German conditions, the political and economic arguments in favour of distributing the privatization receipts directly and equally among the population are of less relevance than in other Central and East European countries. Particularly the voucher system is not to be recommended. In the case of widely spread shares, an effective monitoring of managers by the shareholders is hardly possible so that the incentives of the former to enhance the firm's efficiency remain weak [Hinds, 1990, p. 113]. Hence, the approach of the Treuhand, acting as a privatization agency, to identify potential buyers and to initiate a bidding process is more promising.¹ The process of privatization may be further accelerated if firms and potential buyers were given the right to propose a sale and, thus, initiate an open bidding process themselves. In addition, a semi-stock market with less formal stock exchange admission regulations may be established to allow economically viable East German firms easier access to the

¹ Some particulars must be laid down in the contract that provides the basis for the bidding process, most notably the allocation of environmental vintage damages, the treatment of old debt and other liabilities, and - possibly - investment and employment guarantees.

capital market, with suppliers of capital assuming greater risk.¹

By establishing a privatization agency, it is not ruled out that governments attempt to confuse privatization with structural policy. The temptation to smoothen the adjustment for individual firms and reduce short-term unemployment problems by subsidizing old lines of production is evident in the German case. The objective to improve the efficiency of firms before they are privatized is explicitly stated in the law on the privatization and reorganization of state-owned property (Treuhandgesetz); due to political pressure, this objective is likely to gain further importance in the future. However, it is mandatory that Treuhand concentrates on privatization, simply because it does not have reliable information on the economic viability of the 8000 firms in its portfolio. Enterprises not taken over by private owners even after inherited debt and environmental damages have been cleared by the government must be closed down, instead of wasting the receipts from privatization by subsidizing non-viable firms. The living standard of the affected people should be protected by social rather than structural policy, since the former does not interfere with an efficient allocation of capital.

Apart from privatizing existing firms, the creation of new firms is crucially important to alleviate the transition crisis, contain unemployment problems, and promote the restructuring of the economy. Hence, market entry barriers must be abolished, location

¹ A disadvantage of this option might be that it makes it easier for the old management to stay in power.

space supplied, and finance made available especially for smaller firms.

The destruction of property rights during the communist rule constitutes the most serious hindrance to privatization and investment in new firms. In some East European countries, especially the Soviet Union, it has still to be clarified to what extent individual property rights will be reinstated as an institutional device in the transition towards a market economy. In this fundamental sense, property rights have already been established in the ex-GDR. Nevertheless, uncertainty with respect to ownership continues.

This appears to be largely due to the principal decision by the two German governments in 1990 to reinstitute the previous owners who were expropriated in the GDR since 1949 [see also Siebert, 1991a, pp. 13ff.].¹ Previous owners will be compensated, however, if reinstitution is not feasible because expropriated property was used for other than its original purpose, e.g. in construction, infrastructure or industrial activities.² Remaining ambiguity with respect to reinstitution or compensation as well as administrative bottlenecks have rendered it extremely difficult to overcome ownership uncertainty: First, property titles have not been documented adequately for forty years in the GDR.

¹ In the meanwhile, about one million applications for reinstitution from previous owners are under consideration, about 10 000 of which relating to medium and small-sized firms.

² It was also decided that expropriations carried out during the time of the Soviet military government (1945-1949) would not be reversed. A decision by the constitutional court is pending on this issue, however.

Second, previous owners are inclined to demand reinstitution instead of compensation and to go to the courts when the market value of the expropriated property exceeds the offered financial compensation; the transition process may be seriously delayed while waiting for the final court decision which may take several years. Third, in many instances, a large number of claims relates to one particular firm which has acquired various pieces of property over the last four decades. Currently (March 1991), the sale of a firm is actually blocked in the ex-GDR in the case of claims on part of its assets by previous owners. As a consequence, Treuhand cannot proceed with privatization.

Ownership uncertainty has to be removed as far and as quickly as possible in order to contain the transition crisis. Most importantly, a clear preference should be given to financial compensation of previous owners, especially when reinstitution undermines productive operations by economically viable units. As a minimum, Treuhand should be authorized to provide potential investors with user rights on assets for which claims by previous owners are unsettled. Long-term leasing agreements may reduce the investor's risk, while the time consuming settlement of compensation demands would be handled by Treuhand. In the remaining cases, the process of reinstitution must be accelerated. This may be achieved if previous owners were preliminarily installed in their ownership rights until a final court decision is reached.¹ In addition, administrative capacities have to be improved, e.g.

¹ These problems are dealt with in the recent law on unsettled property issues which has passed cabinet on February 6, 1991.

by delegating administrative staff from the old to the new "Länder", to set up appropriate title records and manage the licensing procedures for new firms.

IV. Economic Performance of East Germany in Comparative Perspective

Two conclusions emerge from the above discussion: First, major adjustment problems cannot be avoided in the transition from a centrally planned towards a market economy. Second, the temporary decline in output and employment is likely to depend on the severity of the initial distortions, the speed and methods of privatization, and the opportunities for new firms to start operations. The principal problems of real adjustment in the ex-GDR reveal strong similarities with other Central and East European countries. It is thus not surprising that also East Germany suffers from a severe transition crisis.

The current economic malaise in the ex-GDR is clearly reflected in the data (Table 1), although statistical measurement is loaded with various conceptual difficulties in the case of economies undergoing fundamental changes in the economic regime:¹

- Open unemployment rose significantly during 1990. Moreover, unemployment is seriously underestimated by the ratio of 6.1

¹ For example, indices of production refer to obsolete price weights, and statistics on the pre-reform era are likely to be deliberately beautified.

Table 1 - Economic Development in East Germany in 1990^a

	1989	1990				
		total year	first quarter	second quarter	third quarter	fourth quarter
Persons employed, all sectors ^b	100	89.9	97.0	93.4	81.5	71.9
Unemployment						
1000	0	228	13	83	309	506
per cent	0	2.6	0.1	0.9	3.5	6.1
Short-time workers (1000)	0	758	0	0	1295	1736
Commuters (1000)	0	76	15	27	79	183
Gross wages per fully employed person	100	124.6	103.1	113.2	134.9	147.1
Productivity per working hour	100	95.2	95.8	98.1	84.9	102.0
Production at current prices:						
- Agriculture and forestry	100	67.3	25.7 ^c	20.0 ^c	105.7 ^c	60.0 ^c
- Manufacturing and mining	100	71.1	96.8 ^c	92.9 ^c	46.4 ^c	50.4 ^c
- Construction	100	93.0	89.8 ^c	114.3 ^c	98.0 ^c	102.0 ^c
- Transport and trade	100	76.3	90.5 ^c	88.6 ^c	55.2 ^c	61.9 ^c
- Services and government	100	106.5	98.1 ^c	100.6 ^c	105.8 ^c	110.4 ^c
Private consumption ^d	100	107.0	94.4 ^c	94.4 ^c	93.0 ^c	103.2 ^c
Government con- sumption ^d	100	105.2	89.5 ^c	93.9 ^c	98.9 ^c	108.3 ^c
Fixed investment ^d	100	90.8	73.5 ^c	92.8 ^c	73.5 ^c	92.8 ^c
Exports ^d	100	112.6	92.8 ^c	110.1 ^c	113.7 ^c	125.9 ^c
Imports ^d	100	160.7	87.1 ^c	111.8 ^c	165.7 ^c	197.8 ^c
Gross domestic product ^d	100	80.8	92.1 ^c	91.8 ^c	66.9 ^c	68.8 ^c

^a 1989=100, if not stated otherwise. - ^b Half of the workers on short-time are counted as employed (see also Table A1). - ^c Fourth quarter 1989=100. - ^d Current prices.

Source: Deutsches Institut für Wirtschaftsforschung [1991].

per cent reported for the fourth quarter of 1990. This is because the more generous application of regulations on short-time work in the ex-GDR (probably at least until end-1991) induced many firms not to lay off the workforce; short-time work, with working hours frequently reduced down to zero, became a common feature. Table A1 reveals that unemployment would be more than twice as high as the officially recorded unemployment ratio if the number of short-time workers, weighted by the proportion of idle working time, were added.

- Apparently, the recent boom in firm registrations, amounting to about 30 000 per month in the second half of 1990 (Table A2), had at best a limited impact on labour markets, given significantly declining employment figures and the low and stagnant number of vacancies. To a large extent, the registration numbers refer to the re-registration of existing firms rather than to the uprise of new ones; and most of the new firms are very small and have not yet started operations. Interestingly, also the number of cancelled registrations increased from 6.4 per cent of total registrations in July 1990 to 16.2 per cent in November 1990.
- The development of gross wages was not at all related to the unfavourable employment situation, nor to the level and trend of labour productivity. Labour productivity in the GDR was estimated at one third (or even less) relative to West German standards [Siebert and Schmieding, 1990]. A further decline is reported for the third quarter of 1990; subsequently producti-

vity recovered to the 1989 level (Table 1).¹ In sharp contrast, nominal wages increased significantly after the GEMSU had been concluded; within six months, wages soared by 30 per cent.

- While investment fell, private and government consumption was decoupled almost completely from GDR production [see also Gabrisch et al., 1990, pp. 16ff.]. Comparing the fourth quarters of 1989 and 1990, consumption was higher by 3-8 per cent with GDP down by more than 30 per cent and imports doubled (Table 1).²
- The dramatic fall of production was most pronounced in industry which experienced a slump of about 50 per cent in the third against the second quarter of 1990. According to Table A3, all major industries suffered from a drastic decline in production immediately after the GEMSU. The slight improvement observed in September, October and November may be due to "better organized support of the Treuhandanstalt" [ibid, p. 17]. The December figure indeed indicates that industrial production has not yet touched bottom. Especially the expiration of the previous contracts for exports to CMEA countries is likely to result in a further decrease of industrial production.

¹ To some extent, this productivity increase simply mirrors higher wage costs in the government sector which is directly financed by Western transfers.

² Moreover, the nominal consumption figures significantly understate the substantial rise in real living standards. They do not capture the effect that sub-standard East German tradables were largely replaced by cheaper and qualitatively superior Western products.

Notwithstanding subsidies from the West of considerable magnitude, the transition crisis in the former GDR is of unprecedented severity by international standards (Table 2). Comparing 1990 with 1989, the decline in industrial production and GDP was more than three times the decline observed for the average of Central and East European countries. Moreover, the annual change for East Germany tells only part of the story because the transition shock is still blurred by the pre-reform era until mid-1990. The awkward situation of the ex-GDR is not at all surprising relative to countries such as Czechoslovakia or the Soviet Union where comprehensive economic reforms have been delayed and the transition crisis is still lying ahead. Remarkably, however, the economic downfall after the GEMSU was even much more pronounced than in Poland, where industrial production in the state sector declined by about 25 per cent in the aftermath of the far-reaching stabilization and liberalization program launched in early 1990

Table 2 - Industrial Production in Central and East European Countries in 1990 (annual change against corresponding period in 1989 in per cent)

	first two quarters	first three quarters	total year ^a (estimate)
East Germany	-7.0	-29.0	-29 (-22)
Bulgaria	-11.0	-13.0	-13 (-12)
Czechoslovakia	-3.0	-3.5	-3.5 (-3)
Hungary	-9.6	-10.0	-10 (-5)
Poland	-30.1	-27.1	-25 (-17)
Romania	-18.0	-21.0	-21 (-15)
Soviet Union	-0.7	-0.9	-5 (-3)
Yugoslavia	-10.9	-10.6	-10.6 (-10)
Total	-5.3	-6.7	-9.3 (-6.3)

^aEstimated GDP growth rate in brackets.

Source: Gabrisch et al. [1990].

(against minus 50 per cent after the GEMSU). This suggests that the above mentioned advantages of the ex-GDR in managing economic transformation were outweighed, at least in the short run, by GDR-specific transition problems and policy failures.

V. Causes of the East German Slump

From the comparison with Poland, interesting insights may be gained on the causes of the particularly strong decline in output in East Germany. For both countries, some decrease in output was to be expected for two reasons: First, some of the goods produced under socialist conditions (notably many investment goods) had no positive economic value; unless generous subsidies were paid to maintain this absurdity, the switch to a market economy would give rise to welfare-enhancing cuts in value-distracting production activities. Second, the regime switch induces a transition crisis which becomes evident in a temporary drop in production.

In other respects, East Germany and Poland differed markedly: On the one hand, Poland had to eradicate hyperinflation at the beginning of 1990, while East Germany in mid-1990 imported the macroeconomic stability of the Federal Republic. As drastic stabilization programs tend to go along with a deep recession, the slump in production was likely to be more severe in Poland. On the other hand, the sweeping external liberalization in East Germany was likely to make the crisis there more front-loaded. Balancing these two factors, East Germany does not appear to be at a disadvantage.

However, what turns the balance against East Germany is that external liberalization was accompanied by a significant rise in local production costs, most notably due to the terms at which the DMark was introduced on July 1. Based on what is admittedly only an imperfect yardstick - the measured competitiveness of East German exports to the West - the former East German Mark was worth only 23 West German Pfennigs.¹ Hence, the conversion rate of M 1 : DM 1 for current payments resulted in a dramatic overvaluation of East German economic output, which became even more pronounced with soaring nominal wages during the course of 1990. The ensuing East German economic crisis was not surprising, given that the region has undergone a sharp increase in production costs and full competitive exposure to world markets at the same time. By contrast, Poland at the beginning of 1990 devalued the Zloty to a realistic rate close to the black market rate and has since enjoyed an export boom.²

Politicians and even economists have frequently argued that a conversion rate of M 1 : DM 1 for current payments including wages was inevitable:³ With all legal and institutional barriers to labour mobility being removed, an East German wage level that was in line with the low level of labour productivity in the tradable goods sector would have caused an unwanted surge in

¹ The foreign currency coefficient which indicates the value of domestic inputs in East German Mark needed to earn one DMark in exports stood at 4.4 in 1989.

² At the end of 1990, those East German workers who were still fully employed earned roughly 6-8 times more than their Czechoslovak and Polish counterparts.

³ A conversion rate of M 2 : DM 1 had been proposed by Schmieding [1990] and - in a marginally modified form - by the Deutsche Bundesbank.

migration to the West. This argument may be challenged for a variety of reasons:

- Economically, migration of workers to locations of higher productivity is not necessarily damaging. There may be externalities of migration which harm the people in the emigration region. But unlike cross-border migration of labour, intra-German migration gives rise not only to higher individual welfare of migrants, but also to an increase of united Germany's GNP and, hence, to higher tax revenues that may benefit the region of origin. These extra tax receipts can be utilized to improve the investment environment in East Germany, e.g. via a more rapid build-up of the physical and institutional infrastructure. Consequently, the economic case for artificially slowing down migration is not as strong as frequently suggested [see also Mayer, 1990b].
- The adverse effects of wage hikes across the board, most notably in terms of higher unemployment and the ensuing uncertainty about the economic future of the region, may well be a stronger incentive for emigration than wage differentials; whereas productivity-oriented wage levels would have provided ample scope for the differentiation of wages needed to tailor them to the pattern of labour demand. Migration to the West has actually increased in the aftermath of the currency union.
- Politically, there may be sound arguments for generous transfers to allow East German citizens to enjoy a standard of

living far greater than warranted by the value of their labour productivity. Exaggerated wage levels, and social transfers to cushion the unfavourable employment consequences, however, are an inefficient means to persuade East Germans to stay put. In this way, the profitability of production is reduced, with the result of an unnecessarily sharp decline in output and locally generated income. With more realistic wages and a smaller drop in domestic production, higher levels of both living standards and investment could have been attained in the East with a given amount of transfers from the West.

Principally, the conversion rate sets only the initial wage rate, while equilibrium wages can be attained in subsequent wage bargaining [Schinasi et al., 1990]. However, nominal wages in the ex-GDR proved to be inflexible downwards. Indeed, fostered by the political promise to narrow the gap in living standards between the two parts of Germany, East German wages have risen sharply after the currency union while production collapsed at the same time. While Poland had levied punitive taxes on wage increases exceeding the rate of inflation (or a certain percentage of price level increases), there were no constraints on collective bargaining agreements in the ex-GDR. Note that the East German wage hikes can hardly be interpreted as the result of a market-determined process of wage setting: Wage increases were in most cases granted by managers of state firms who have no strong incentive to care for the long-term profitability of their firm. Furthermore, both employers and employees had good reason to assume that the firms would operate under a soft budget constraint so that

excessive cost increases would be compensated by additional subsidies [for a similar reasoning, see Lipschitz, 1990, p. 16].¹

As it turned out, the political promise to quickly narrow gaps in living standards and the failure to devise ways of doing so without causing a slump in East German production have wiped out the chances of profitable production in most existing plants on the basis of current physical and institutional infrastructure. Although it continues to exist in physical terms, much industrial capacity has been made economically obsolete. The inevitable cuts in production automatically reduce tax revenues. And most locally produced goods have simply disappeared from East German shelves because they no longer command a price advantage over qualitatively superior Western imports.

Because of the cost explosion, investments to improve the existing plants can hardly succeed to quickly attain the high level of productivity that corresponds to the inflated wage level. Hence, modernization of the East German economy has to take place via the lengthy and costly route of rebuilding the major part of production capacity almost from scratch [Schmieding, 1991a].

¹ Somewhat cynically, one may even argue that the behaviour of trade unions in East Germany is quite rational from an East German perspective regardless of the nature of the budget constraint for individual firms and the resulting drop in employment: Unions trying to maximize the sum of wages and unemployment benefits in East Germany have an incentive to push for West German wage levels, regardless of the local level of productivity, as the overall costs of unemployment are shifted onto non-residents, i.e. the West German taxpayer, and as East German unemployment benefits themselves rise with local wage levels.

There seems to be less need for going this way in Poland. Unfortunately, this already daunting task is greatly complicated by another feature of German economic unification: Almost all of the intricate complexities of West German laws and regulations have been introduced in East Germany. These administrative hurdles to investment may be bearable in the advanced West, where administrators have learned to cope with these rules over the course of time. Naturally, their East German counterparts who have grown up with a completely different system are still struggling to understand the immensely complicated details of the new rulebook, let alone apply them sensibly.

The necessary rebuilding of the East German economy is delayed by a variety of hurdles to investment. In addition to remaining ownership uncertainty, the cumbersome West German laws and regulations about the appropriate planning procedures for infrastructure and housing projects contribute to the reluctance of investors. Furthermore, the insufficient provision of suitable land and of shop and office space has turned out to be a major obstacle to the establishment of new firms. Apart from ownership disputes, this is caused by the fact that East Germany does not yet have a normal real estate market, but only a residual market with artificially inflated prices and rents. In a similar vein, the housing shortage caused by the absurdly low level of the respective rents is a major constraint on the mobility of workers within the ex-GDR. Perversely, this may well imply that some East German workers looking for a new job have to go West even if they could have found a suitable job in East Germany.

West German labour market regulations, including lay-off constraints, are another case in point. For instance, the rule that existing labour contracts also hold for new owners of an enterprise (article 613a of the German Civil Code) renders the purchase of an existing and typically overstaffed East German firm unattractive. This rule holds even if the firm in question is part of a larger unit which has gone bankrupt. It fosters the tendency among Western investors to erect new plants instead of purchasing and modernizing existing ones - or to shun East Germany altogether.

Taken together, many of the developments in East Germany are only explicable in terms of a soft budget constraint for the whole region. In a way, the supposed advantage that East Germany became part of a much larger and wealthier unit, whose overall economic situation would be only marginally affected by developments in the East, has turned out to have some unfavourable consequences: Politically desired decisions could be taken without proper regard for their economic consequences. To a much greater extent than would have been feasible in other Central and East European countries, political considerations could prevail over economic logic.

Arguably, both the amount and the type of transfers from the West to the East may have undesirable ramifications. It remains to be seen whether private initiative and the motivation of the people will be impaired by the sheer size of transfers and transfer-like credits (amounting to roughly two thirds of East German GDP in

the second half of 1990, and, probably, in 1991 as well)¹. Moreover, many of the present transfers take the form of selective subsidies for individual firms which may distort the pattern of production.² And, finally, the subsidization of capital through tax credits and grants, amounting to up to 33 per cent of investment outlays (up to 42 per cent in the case of buildings), is an inefficient way to stimulate economic recovery. It may lead to an artificially high capital intensity of production. Instead, public resources should be concentrated on areas which are the true preserve of the state, i.e. improving the investment environment. Most importantly, the various bottlenecks in East Germany's administrative and legal system and in its infrastructure ought to be eliminated quickly. In this way, far more private capital may be encouraged to go eastward.

VI. Lessons for Central and Eastern Europe: Summary and Policy Conclusions

Ultimately, the success of economic transition towards a market economy will depend on private initiatives, i.e. the readiness of

¹ East German public sector deficits amounted to roughly DM 68 billion in the second half of 1990, DM 40 billion of which were financed by Western transfers, the remainder by credits explicitly or implicitly guaranteed by the West. The respective figure for 1991 is forecasted at roughly DM 150 billion, DM 120 billion of which will probably be covered by outright transfers [Boss, 1990].

² For example, subsidies for production and exports to former CMEA countries amounted to roughly DM 6.5 billion in the second half of 1990 [Hoffmann, 1991]. Substantial subsidies are also granted for firms which the Treuhand deems viable in the long run or on whose fate the Treuhand has not yet decided.

foreign investors to commit resources to post-communist economies and the development of domestic entrepreneurship [see also Lipschitz, 1990, p. 16]. In the medium run, economic liberalization and opening up towards world markets will clearly result in higher potential rates of return in Central and Eastern Europe so that capital will flow east. During the transition period, however, much depends on whether short-term uncertainties about the prospective rate of return, generating a weaker response of foreign and domestic investors, can be contained. To succeed in real adjustment, macroeconomic stabilization must be achieved quickly, an efficient microeconomic incentive system must be installed, the institutional framework has to be supportive to individual initiative, and the absorptive capacity for private investment has to be strengthened.

In several respects, the longer-run prospects for economic recovery in the ex-GDR are enhanced by relatively favourable starting conditions, as compared to other reform-minded countries. Most notably, monetary stabilization was no longer a major problem after the GEMSU, the institutional framework was easily available from the West, and the risk of policy reversal was largely absent. Moreover, "the saving surplus in West Germany provides a large pool of resources from which the investment needs of East Germany can be financed" [McDonald and Thumann, 1990, p. 78]. At the same time, however, some of these advantages prove to be a two-edged sword in the short run:

(1) With monetary stabilization achieved through the currency union, the exchange rate was no longer available as a shock absorber. A particularly strong transition crisis is by no means surprising when, as in the case of East Germany, comprehensive trade liberalization is accompanied with currency revaluation [Gabrisch et al., 1990, pp. 16ff.; Hoffmann, 1991]; this is also evident from developing country experience [Papageorgiou et al., 1991]. Hence, a first lesson for Central and East European countries can be drawn: The East German experience should not be misinterpreted as an argument against sweeping trade liberalization. But governments are well advised not to stick to overvalued exchange rates, which is frequently considered as an anti-inflationary device; they should rather use the exchange rate tool to improve international price competitiveness and, thereby, to smoothen the transition crisis.

(2) Although easily available, the ready-made institutional infrastructure of West Germany may not be appropriate under ex-GDR conditions. This refers to specific restrictive elements of this framework which adversely affect the economy's adjustment flexibility, though urgently needed especially in the difficult transition period. A case in point is the application of West German labour market regulations, in particular lay-off constraints, in the ex-GDR. More generally, the sophisticated legal and institutional framework of advanced Western economies appears much too complicated for economies in transition which do not possess the administrative capacities to handle such a system efficiently. The second lesson for Central and Eastern Europe is, thus, to

implement only a limited set of basic rules and regulations that are essential for the transition to a market economy, not to interfere with the flexibility of the adjustment process, and not to put too much strain on the public administration.

(3) Due to the "by and large satisfactory state of government finances" [Mayer, 1990a, p. 170] in West Germany, there was ample scope for fiscal support of economic transition and alleviation of the social adjustment burden. However, public financial support and subsidies may well be counterproductive. There is the risk that the pressure for adjustment is reduced, existing economic structures are preserved, and the flexibility of labour markets is impaired. This may suggest a third lesson: To limit the adverse effects of huge public financial transfers, Central and Eastern Europe should attempt to attract private risk capital imports in the first place. External public support might be focussed on technical assistance in managing the transition process [Kostrzewa et al., 1990]. In this way, the absorptive capacity of reform-minded countries for private investment may be significantly enlarged.

The East German experience also underscores some typical transition problems that are more or less common to economies undertaking fundamental changes in the economic regime. A major prerequisite to create an economic environment supportive to individual initiative is a clear delineation of responsibilities of the public and private sectors. In some cases, most notably the Soviet Union, it is still to be decided to what extent individual

property rights will be reinstated and enforced. But even after property rights have been firmly established, uncertainty with respect to ownership may well continue and scare away private investors, as is presently the case in the ex-GDR. Hence, as a fourth lesson, ownership uncertainty should be overcome as soon as possible, e.g. by preferring financial compensation over re-institution of previous owners of assets expropriated under the communist rule and by accelerating the process of re-institution in the remaining cases.

The fifth lesson refers to the methods of privatization [for a more detailed discussion, see Schmieding and Koop, 1991]: The German experience suggests that an unambiguously superior privatization approach does not exist. For example, the arguments in favour of distributing the privatization receipts directly and equally among the population are of less relevance in East Germany than in other Central and East European countries. In any case, however, the institutional arrangements should ensure that privatization proceeds without undue delay in order to strengthen the supply response to market signals, and managers are controlled effectively by shareholders. The privatization receipts should be distributed in a way that public support is maintained and the financial position of the government is not further eroded. To speed up privatization, a sixth lesson should be followed which again relates to the demarcation of responsibility between the public and the private sector: Privatization must not be confused with structural policy. Agencies such as the German Treuhand do not have reliable information on the economic viabil-

ity of the firms to be privatized. Consequently, a restrictive stance should be applied with regard to government bridge loans or public guarantees for new bank credit as possible restructuring devices prior to privatization. Guarantees may be justified, however, if enterprises do not have access to bank loans because unsettled property issues result in a lack of collateral. Moreover, remaining ambiguity concerning the clean-up of environmental damages and old debt inherited from the communist era must be removed. To overcome the reluctance of would-be investors, it should be clearly specified in privatization contracts to what extent old liabilities will be taken over by the government.

In addition to common transition problems, the economic transformation of the ex-GDR is subject to specific constraints resulting from the economic and political unification of Germany. Obvious tensions are created by the intensively discussed trade-off between price competitiveness, westward migration and wage policy [see e.g. McDonald and Thumann, 1990, p. 78; Mayer, 1990b]: Wage concessions exceeding productivity gains further erode international competitiveness, thereby discouraging private investment and adding to unemployment in the ex-GDR. On the other hand, wage restraint is in conflict with earlier government promises that the earnings gap between East and West Germany will soon be narrowed. It is also said to fuel migration which, especially in the case of highly qualified employees, may adversely affect the absorptive capacity for private investment funds. As far as migration is concerned, however, two arguments against excessive wage demands should be kept in mind:

- Persistent and significant income differentials between different regions of West Germany suggest that it is not necessary to eliminate the wage gap between East and West Germany in order to stop migration [Mayer, 1990b, p. 135].
- It is open to question whether the income gap or rather additional unemployment due to wage hikes provides a stronger incentive for westward migration.

The German solution to this conflict might be a more pronounced wage differentiation with regard to skills, sectors, and regions within East Germany. Other Central and East European countries do not face this particular trade-off, with labour being considerably less mobile across boundaries. Nonetheless, two final conclusions might be drawn from the German discussion on this issue: Wage increases should be moderate in order to improve international competitiveness and generate additional employment opportunities in the production of tradables. This refers in particular to countries where, similar to the ex-GDR, the wage rate has to assume the role of the exchange rate in maintaining competitiveness, i.e. where the exchange rate is (mis-) used as a nominal anchor to contain inflation. Wage demands may be checked by employers interested in the long-term viability of firms. This indicates that market-oriented and efficient wage setting and the privatization issue are closely intertwined, due to the observation that the management of socialist firms is more likely to concede excessive wage increases.

Finally, the governments bear great responsibility that wage demands remain moderate. Experience suggests that unrealistic forecasts and promises concerning fast economic recovery during the transition period have fed overly optimistic public expectations on the speed by which living standards could be improved after a change in the economic regime. The government's temptation to conceal the short-term transition costs will ultimately add to such costs, by giving rise to additional problems in real adjustment of firms and by undermining the government's credibility in the medium term. With lack of credibility becoming a major problem, reform programs are bound to fail and the economic transformation of Central and Eastern Europe may be seriously delayed.

Table A1 - Employment Data for East Germany^a, July 1990-February 1991

	July	August	September	October	November	December	January	February
Unemployment (1000)	272	361	445	537	589	642	757	787
Short-time workers (1000)	656	1500	1729	1704	1710	1794	1856	1900
Working-time lost per short-time worker (per cent)	n.a.	n.a.	43.6	44.6	47.0	48.2	51.8	55
Vacancies (1000)	28	20	24	25	24	22	23	n.a.

^aEnd of month. East Berlin included.

Source: Deutsches Institut für Wirtschaftsforschung [1991]; Frankfurter Allgemeine Zeitung, March 7, 1991.

Table A2 - Registration of New Firms in East Germany, 1990^a

	first quarter	second quarter	July	August	September	October	November
Total	16 896 (n.a.)	83 983 (n.a.)	35 849 (33 542)	30 790 (27 866)	29 768 (26 127)	29 366 (25 204)	29 072 (24 351)
Handi- crafts ^b	n.a. (n.a.)	n.a. (n.a.)	13.8 (12.4)	11.9 (10.1)	10.9 (9.2)	10.2 (9.0)	8.8 (7.6)
Trade and restaurants ^b	n.a. (n.a.)	n.a. (n.a.)	52.6 (53.4)	56.6 (58.0)	53.3 (53.9)	48.8 (48.3)	46.8 (45.9)

^aIn brackets: net of cancellations. - ^bIn per cent of total.

Source: Gemeinsames Statistisches Amt der neuen Bundesländer [1990].

Table A3 - Industrial Production in East Germany^a, October 1989 - December 1990 (1985=100)

	Total	Energy	Chemical industry	Metallurgy	Construc- tion materials	Machinery and transport equipment	Electrical equipment	Light industry	Textiles	Food processing
<u>1989</u>										
October	113.4	104.6	109.5	105.8	109.7	115.7	137.6	110.8	113.8	111.7
November	110.8	111.8	110.4	101.5	105.9	105.7	133.2	112.5	111.3	110.8
December	108.3	118.6	105.0	102.1	93.0	110.5	135.4	106.3	108.9	108.8
<u>1990</u>										
January	104.1	112.2	103.1	101.8	96.2	105.5	127.0	109.8	107.4	96.5
February	107.5	108.1	101.3	101.8	103.0	112.5	136.0	111.6	108.3	99.2
March	109.2	102.3	101.8	102.2	107.3	115.8	141.1	114.0	112.0	99.3
April	108.0	90.2	102.0	99.6	110.0	121.6	141.6	108.5	111.7	98.9
May	102.6	89.2	93.5	97.1	112.1	117.3	139.3	100.2	91.4	94.2
June	95.9	81.1	89.7	83.3	111.8	123.4	132.5	87.6	83.1	75.1
July	62.4	55.0	67.5	42.1	67.4	81.9	95.1	55.5	53.4	42.7
August	53.2	47.9	53.2	35.5	44.8	73.1	73.5	49.8	49.0	38.8
September	54.5	55.9	52.6	35.8	39.1	73.9	77.2	53.3	51.5	39.1
October	55.1	61.2	51.7	31.8	37.0	71.6	77.6	54.1	49.4	47.2
November	56.6	69.6	55.3	34.2	35.8	71.2	73.6	55.7	47.7	48.4
December	50.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

^a Not seasonally adjusted.

Source: Gemeinsames Statistisches Amt der neuen Bundesländer [1990].

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