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*Industrial Policy and Poverty in Transition  
Economies: Two Steps Forward or One  
Step Back?*

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Two Steps Forward or One Step Back?**

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## Industrial Policy and Poverty in Transition Economies: Two Steps Forward or One Step Back?

### *Introduction*

The incidence and magnitude of poverty grew substantially when socialist economies in Central and Eastern Europe initiated the transition from plan to market at the end of the 1980s. The phenomenon was repeated in the former Soviet Union in the early 1990s. Vast numbers of households fell below the federally designated “minimum income level,” in part, a consequence of rampant inflation and declining real wages, and, in part, a consequence of growing unemployment. Initially, the numbers of poor, needy and newly unemployed varied by country in response to the severity of the recessionary conditions imposed by the transformation process. For nearly a decade, their survival has depended upon newly-established social welfare programs<sup>1</sup> and upon the maintenance and extension of inter-household transfers.<sup>2</sup> This paper focuses on whether industrial policy can be used to combat poverty in transition economies by offsetting the poverty consequences of low wages and unemployment. The likelihood that industrial policy will be successful, however, depends upon the extent to which it explicitly addresses both economy-wide and enterprise restructuring issues that are critical to the completion of the transformation process.

Industrial policy traditionally involved government intervention in the long-term strategic development of a designated manufacturing sector. Industrial policy typically incorporates a host of actions adopted in response to some mechanism designed to pick winners and losers in industry. In developed market economies, industrial policy works within existing institutional structures to develop or improve the outcomes of “designated winners”; that is, firms or industries where comparative advantage or employment expansion is desired by policy makers (Karp and Perloff 1993, Krugman 1993, Sawyer 1991). Industrial

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<sup>1</sup> See, for example, Ahmad (1992), Boeri (1997), Garner and Terrell (1997), Godfrey (1995), Lubyova and van Ours (1997), O’Leary (1997) and Standing (1996) for discussion of unemployment compensation and other welfare programs.

<sup>2</sup> Barberia *et al.* (1997), Cox *et al.* (1997), and Kramer (1997) provide detailed analyses of inter-household transfers in the transition economies of Central and Eastern Europe, as well as Russia and the Ukraine.

## 1.1 Different Approaches to Industrial Policy

The phrase "industrial policy" is weighted down by historical baggage. Industrial policy has been applied in both developed and developing market economies. Yet, what constitutes industrial policy is shaped by one's perspective of how a market economy functions. Sawyer (1991) delineates three approaches to industrial policy based on different views of how market economies operate. Dietrich (1991) offers a fourth approach, which he contrasts with an approach he depicts as generally associated with economic orthodoxy. The five approaches are summarized here to lay the foundation for how industrial policy might be used in transition economies to alleviate poverty.

### *"Market Failure" Approach*

In economies where monopoly power creates welfare loss -- higher prices and lower quantities in comparison to price and quantity outcomes associated with perfect competition -- government steps in to correct the market failure by regulating prices, profit rates, and the like, or by promoting competition by restricting a firm's market share. Industrial policy focuses on improving economic welfare by targeting structural changes that will lead to improvements in industrial performance. Within this framework, industrial policy includes adjusting interest rates and tax rates to improve exchange conditions and thus promote a comparative advantage in domestic or global markets. In this regard, there is a close affinity between industrial policy and competition policy.

### *"Austrian" Approach*

Economists steeped in the Austrian paradigm tend to see entrepreneurship and competition as driving (and beneficial) forces in economic development. Austrian economists view government as a constraint on market activity, preferring to restrict its role to enacting and enforcing laws to protect property rights and market exchange. Within the Austrian framework, industrial policy, to be beneficial, would involve lowering barriers to entry into industry and promoting competition. In this regard, industrial policy works by improving exchange conditions.

### *"Industrial Strategy" Approach*

Where changing conditions of production, rather than conditions of exchange, is a primary objective, industrial policy would incorporate instruments to influence the level or pace of investment and thus industry development. In this framework, the role of government is to create opportunities that would not otherwise exist. Industrial policy, working in conjunction with market forces, takes on a strategic role in developing future production and employment options. Moreover, a broadly conceived industrial policy would be concerned with reducing regional disparities, unemployment, and underutilization of capacity that would typically arise in a developed or developing market economy.

### *"Orthodox" Approach*

Utilizing selective promotion of particular sectors or branches of the economy, financial aid to investment and R&D, and/or regulation of foreign trade in the interests of a national economy, industrial policy is characterized as a long-run supply-side set of initiatives aimed at restructuring or developing a firm or sector. Industrial policy acts as a mechanism to move resources in such a

privatization process, and more generally, supporting privatized (former state-owned) and *de novo* (newly-created private) firms in developing a competitive position in global markets. Industrial policy also was viewed as a mechanism for assisting in the physical and financial restructuring of former state-owned enterprises (SOEs). Indeed, a narrow definition of industrial policy is closely linked to restructuring options associated with former SOEs in transition economies. Moreover, to the extent that restructuring in transition economies has become broadly defined to include closing unprofitable firms, or divisions within firms; reorganizing production processes and renovating capital stock; splitting up monopolies and/or introducing competition in product and factor markets (Lavigne 1995), industrial policy would not be ruled out *a priori* as a possible mechanism to employ in the restructuring process.

Transition economies to date have not adopted industrial policies in the conventional sense. Policy makers have, however, with the financial aid of international organizations, tried to step in where market forces and institutions are not fully developed or well-functioning (Aslund 1997, Rosati 1994, Torok 1995). In particular, policy makers frequently employed subsidies and loans in the initial stages of the reform to rescue large enterprises from bankruptcy.<sup>6</sup> Moreover, nearly half of all new investment in the transition economies of Central and Eastern Europe and the former Soviet Union has been directed toward the development or expansion of requisite infrastructure and institutions. Finally, policy makers adopted higher tariffs to protect nascent and aging industries that provided export earnings. In sum, however, industrial policy in the conventional sense has not been extensively employed as an option to mitigate the social costs of enterprise and economy-wide restructuring (Daianu 1997, Ghatak and Roberts 1997). The reluctance to employ industrial policy stems partly from the lack of domestic financing and institutions required to support designated firms or industries,<sup>7</sup> and partly from the lack of support by policy makers for something perceived to be closely linked to central planning (Lavigne 1995). In this regard, industrial policy may have

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<sup>6</sup> Bailouts, while contributing to inflationary pressures in transition economies, did enable policy makers to temporarily avoid a domino effect in the production and employment patterns of downstream firms.

<sup>7</sup> Examples of programs adopted in transition economies that would fall under the rubric of industrial policy have typically been financed by such international agencies as the International Monetary Fund, World Bank, and the European Bank for Reconstruction and Development. See also Petrakos (1997).

successful, industrial policy would necessarily address infrastructure and institutional shortcomings associated with the socialist legacy. In both instances, enterprise and economy-wide restructuring, industrial policy would be viewed as a mechanism to add to the group of potential winners.

Industrial policy is unlikely to function in transition economies in the same manner it functions in developed market economies. By definition, transition economies are in a state of flux; socialist institutions and organizational structures are being dismantled and market-oriented institutions and organizations are being established. To combat two of the causes of poverty, low wages and unemployment,<sup>9</sup> industrial policy may need to address the issues of monopoly power in product markets, the provision of social benefits by firms, as well as the mechanics of generating investment funds for renovating privatized (former state-owned) firms and expanding newly-created private firms (*de novo* firms). In particular, industrial policy may be used to address the main obstacles that firms in transition economies face as they try to position themselves for success in the post-transition environment. As such, industrial policy would take on some of the characteristics typically associated with that applied in developed market economies: assisting the firm in export readiness, employee and managerial training, access to funds for R&D, for example. However, because the transformation from plan to market has been impeded by the socialist production and employment legacy and the propensity for institutional and informal arrangements to change only slowly, industrial policy in transition economies would necessarily take on characteristics not found in developed or developing market economies: reducing the incidence of barter transactions, employment maintenance in loss-making firms, subsidized wages for publicly useful or socially valuable work, or creating a culture of commercial morality, for example.

This paper starts from the premise that industrial policy can be used to mitigate the social and economic costs of enterprise and economy-wide restructuring, and thus offset the poverty consequences of low wages and unemployment. That is, industrial policy targets the prevention and elimination of poverty

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<sup>9</sup> This paper does not consider the poverty consequences associated with war or other man-made or natural disasters in the countries of Central and Eastern Europe and the former Soviet Union, although the numbers of people that have been adversely affected by such conditions is large.

poverty in the economies of Central and Eastern Europe, and the former Soviet Union. This section examines the problem that industrial policy must solve in order to reduce the incidence and duration of poverty; that is, how to close the gap between socialist production and employment patterns and market production and employment patterns. While the magnitude of the gap varies by country, in all transition economies, closing the gap has been associated with dramatic reductions in output and employment, especially in manufacturing. Moving from plan to market also has been associated initially with substantial inflation and a deterioration of the living standards of a significant portion of the population. In particular, section two focuses on the poverty consequences of unemployment and low wages in transition economies.

*Section three* highlights the obstacles to using conventional industrial policy in transition economies. Socialist institutions and informal arrangements persist long after the reform begins. In socialist economies, the requisite market institutions and infrastructure were underdeveloped or non-existent. Consequently, at the beginning of the transformation process, it was impossible to introduce industrial policies that have been successfully used in such developed market economies as Canada, Germany, Italy, Japan and Sweden. Equally importantly, the magnitude of the actual and potential unemployment problem which policy makers in transition economies face as they shepard their countries toward capitalism imposes significant constraints on numerous options which might facilitate the speed of the transformation process.

*Section four* investigates the role of industrial policy as a mechanism for economy-wide restructuring; that is, expanding the share of private sector activities, reducing the relative share if industry in overall economic activities, and within industry, reducing the relative share of producer goods in comparison to consumer goods, for example. In particular, a summary of projects adopted to restructure the economy is provided. *Section five* addresses the ways in which industrial policy can be used to assist with enterprise restructuring, with a focus on the consequences of proposed policies for reducing the incidence and duration of poverty.

*Section six* summarizes the costs and benefits of using industrial policy in transition economies to

**Table 1a: Average Annual Inflation Rate  
(percent)**

	1990	1991	1992	1993	1994	1995	1996	1997
<b>Baltic States</b>								
Estonia	23.1	210.6	1075.9	89.8	47.7	29.0	12.0	--
Latvia	10.5	124.4	951.2	109.2	35.9	25.0	25.0	8.4
Lithuania	8.4	224.7	1020.8	410.2	72.2	39.6	13.1	--
<b>Central Asian NIS</b>								
Kazakhstan	5.6	91.0	1514.8	1658.4	1877.4	176.2	12.0	--
Kyrgyzstan	3.0	85.0	854.6	1208.7	278.1	51.6	20.0	--
Tajikistan	5.9	111.6	906.8	2136.1	239.5	443.1	418.0	--
Turkmenistan	5.7	102.5	769.9	1630.5	2714.0	1005.0	450.0	--
Uzbekistan	5.8	82.2	414.5	1231.8	1550.0	315.5	305.0	--
<b>European NIS</b>								
Belarus	5.5	83.5	970.8	1190.2	2221.0	709.3	52.7	--
Moldova	5.7	98.0	1108.7	1183.7	487.0	30.0	15.0	--
Russia	5.3	92.7	1561.0	875.0	309.0	198.0	48.0	17.0
Ukraine	5.4	91.2	1272.9	4734.9	891.2	377.0	80.3	--
<b>Central and East European Countries</b>								
Bulgaria	22.0	333.5	79.4	561.1	87.1	62.1	397.0	1049.0
Czech Republic	9.5	56.7	17.9	16.2	11.1	11.5	8.8	9.5
Slovakia	10.4	61.2	10.0	23.2	13.4	9.9	6.0	7.0
Hungary	28.9	35.0	23.0	22.5	18.8	28.2	23.6	17.0
Poland	585.8	66.8	43.0	35.3	32.2	27.8	28.0	14.0
Romania	5.1	174.5	210.4	256.1	136.7	32.3	38.8	55.0

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Source: UN Economic Commission for Europe, *Trends in Europe and North America 1996/97*, p. 109; EBRD, *Transition Report 1996*, Business Central Europe, Annual Edition, (December 1997), World Bank (1997).



**Table 2: Change in Gross Domestic Product**  
(% change from previous year)

	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Baltic States</b>									
Estonia	--	-8.1	-11	-26.0	-8.6	-3.2	2.9	3.3	3.5
Latvia	--	-2.9	-8	-34.9	-17.0	-5.0	-1.6	1.5	2.6
Lithuania	--	-5.0	-13.4	-39.3	-12.0	-4.0	2.7	1.5	2.4
<b>Central Asian NIS</b>									
Kazakhstan	--	--	-13.0	-13.0	-12.0	-25.0	-8.9	1.1	2.0
Kyrgyzstan	--	--	-5.0	-19.0	-16.0	-26.5	1.3	5.6	--
Tajikistan	--	--	-7.1	-29.0	-11.1	-21.5	-12.5	-7.0	--
Turkmenistan	--	--	-4.7	-3.3	-10.0	-20.0	-10.0	-3.0	-18.0
Uzbekistan	--	--	-0.5	-11.1	-2.3	-4.2	-1.2	-1.0	--
<b>European NIS</b>									
Belarus	--	--	-3.0	-15.0	-16.0	-20.2	-13.0	-10.0	2.5
Moldova	--	--	-18.0	-30.0	-4.9	-31.0	-3.0	-8.0	-2.0
Russia	--	--	-12.9	-24.0	-15.0	-16.0	-8.0	-6.0	-2.0
Ukraine	--	--	-13.4	-18.0	-20.0	-25.0	-12.0	-10.0	-8.0
<b>Central and East European Countries</b>									
Bulgaria	-5.0	-11.8	-22.7	-15.0	-11.0	-4.2	-2.0	-10.9	-11.7
Czechoslovakia	1.4	-0.4	-15.9	-7.0	--	--	--	--	--
Czech Republic	--	--	--	--	-4.0	-0.3	4.0	4.0	1.2
Slovakia	--	--	--	--	-7.0	-4.1	2.1	4.8	5.0
Hungary	-0.1	-5.0	-11.9	-5.0	-5.0	-2.3	1.0	0.5	1.2
Poland	-0.3	-13.0	-9.0	-2.0	2.5	3.5	3.5	4.9	5.2
Romania	-11.0	-12.0	-13.7	-15.4	-20.0	-2.0	1.0	4.0	-3.0

Source: EBRD, *Transition Report 1996*, World Bank (1997).

**Table 3a: Industrial Production  
(1990=100)**

	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
<b>Baltic States</b>				
Estonia	60.1	48.9	47.4	48.3
Latvia	65.0	44.0	41.0	38.4
Lithuania	67.6	44.3	31.9	33.9
<b>Central Asian NIS</b>				
Kazakhstan	85.4	72.8	52.3	48.2
Kyrgyzstan	73.4	54.8	39.5	34.5
Tajikistan	73.1	67.4	46.6	44.2
Turkmenistan	89.2	92.8	69.6	64.8
Uzbekistan	94.7	98.1	99.7	99.9
<b>European NIS</b>				
Belarus	89.7	83.1	68.9	60.9
Moldova	64.8	65.0	47.0	44.2
Russia	75.4	64.8	51.3	49.7
Ukraine	89.1	82.0	59.6	52.7
<b>Central and East European Countries</b>				
Bulgaria	65.4	58.3	63.3	66.2
Czech Republic	71.8	68.1	69.5	75.6
Slovakia	70.8	63.3	67.4	72.9
Hungary	73.8	76.7	84.1	88.0
Poland	91.5	97.4	108.9	119.2
Romania	60.3	61.1	63.1	69.0

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Source: UN Economic Commission for Europe, *Trends in Europe and North America 1996/97*, p. 110.

and Uzbekistan.

Why does it matter if an economy is in the first or second stage of transition? In order to effectively employ industrial policy in transition economies to combat the poverty consequences of low wages and unemployment, the appropriate institutional framework must be in place. This framework is less likely to be in place if the economy is in the first stage of the transformation process.

## ***II. Poverty in Transition Economies***

The incidence and magnitude of poverty in the transition economies of Central and Eastern Europe and the former Soviet Union has been much higher than that of their socialist precedents. Under socialism, unemployment as a cause of poverty was virtually non-existent (Bornstein 1978, Gregory and Collier 1988). Socialist policies and institutions promoted full employment (Adam 1987, Granick 1987). Laws required all able-bodied adults to work, and restricted the right of state-owned firms to fire workers.<sup>13</sup> Under socialism, it was in the economic interests of enterprises to engage in labor hoarding (Berliner 1957, Linz and Martin 1982, Freris 1984). Soft budget constraints (Kornai 1982) sustained the excess labor demand environment. Planners offered a number of incentives to induce individuals to supply labor. Under socialism, guaranteed living standards were provided through employment conditions. In addition to wages, individuals received access to social services and the provision of goods, including housing, at artificially low prices. Yet, in many respects, general living standards were treated by planners as a constraint rather than a goal; that is, the household consumption was a residual in the planning/production/distribution process (Millar and Pickersgill 1977, Millar 1981). As the capacity to produce more diminished in the 1970s and 1980s, consumption conditions deteriorated for many households in socialist economies in general, and the Soviet economy in particular.

Poverty in socialist economies mainly was linked to those without employment. People relying solely on transfer payments: elderly, invalids, and veterans, for example, comprised the majority of the poor.

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<sup>13</sup> Hungary, since 1986, had an income support program for unemployed workers; that is, earnings-related benefits were paid to workers who were released because of redundancy. Slovenia also paid small compensation to job losers. For further discussion, see Boeri (1997).

**Table 4: Poverty and Pension Payments  
(percent)**

	<b>% Population in Poverty 1993</b>	<b>Pension Payments as % Average Wage 1992</b>
<b>Baltic States</b>		
Estonia	37	33
Latvia	22	52
Lithuania	30	41
<b>Central Asian NIS</b>		
Kazakhstan	65	39
Kyrgyzstan	88	34
Turkmenistan	12	--
Uzbekistan	63	43
<b>European NIS</b>		
Belarus	22	42
Moldova	66	--
Russia	50	
Ukraine	63	34
<b>Central and East European Countries</b>		
Bulgaria	15	34
Former Czechoslovakia	<1	49
Hungary	4	49
Poland	20	74
Romania	59	43

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Source: Frydman et al. (1998), p. 215; Milanovic (1997), pp. 75-76.

**Table 5: Unemployment  
(percent)**

	1990	1991	1992	1993	1994	1995	1996	1997
<b>Baltic States</b>								
Estonia	--	--	0.9	2.1	1.8	--	11.0	
Latvia	--	--	1.1	4.7	6.3	6.7	6.3	
Lithuania	--	--	12.9	14.9	16.4	15.4	--	
<b>Central Asian NIS</b>								
Kazakhstan	--	--	0.3	0.5	0.8	1.2	12.0	
Kyrgyzstan	--	--	0.1	0.2	0.4	1.2	20.0	
Tajikistan	--	--	--	0.7	1.5	1.7	--	
Uzbekistan	--	--	--	0.2	0.2	0.4	--	
<b>European NIS</b>								
Belarus	--	--	0.2	1.1	1.9	2.2	--	
Russia				5.5	6.1	8.5	8.9	9.1
Moldova								
Ukraine								
<b>Central and East European Countries</b>								
Bulgaria	1.6	10.7	13.2	16.3	--	11.1	--	
Czech Republic	1.0	4.1	2.8	3.5	3.1	2.9	3.5	5.0
Slovakia	--	--	12.7	14.4	14.8	13.1	12.8	13.3
Hungary	1.6	7.5	12.3	13.2	12.1	10.9	10.4	10.0
Poland	6.3	11.8	13.6	16.4	16.2	14.7	13.6	11.9
Romania	0.0	4.8	6.2	9.2	11.0	8.7	--	

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Source: Thomas (1997), p. 171, Kramer (1997), pp. 636-871.

and an untrained (sometimes unhelpful) staff.<sup>24</sup> More importantly, however, the level of unemployment benefits payments in the newly-established programs typically depend upon past earnings (Boeri 1997), with benefits rates generally reduced over time to minimize work disincentives. In the Ukraine, an extreme case, unemployment benefits in 1994 were less than 20% of the average wage.

Where inflationary conditions persist, unemployment benefits based upon previous earnings rather than a flat rate (or lump sum) adjusted for inflation tend to impose poverty conditions. That is, the lack of indexation of benefits to inflation eroded the real value of benefits and pushed the majority of recipients down to minimum benefit levels. Payment delays also tend to force potential recipients into poverty conditions. To overcome the poverty consequences of low or late payments, in Hungary, those registered as unemployed can work and continue to receive unemployment benefits (Godfrey 1995). No other transition economy adopted an unemployment benefits program that allows individuals to supplement their income and thus potentially avoid poverty conditions.

The incidence of poverty in transition economies is most likely much greater than that associated with official unemployment figures. Official unemployment rates tend to underestimate the number of people without work. First, to the extent that official unemployment figures reflect only those individuals registered as unemployed, discouraged workers (those no longer looking for work) and persons not registered at the federal employment service offices are not included in the unemployment estimates. Standing (1996) estimates that in Russia in 1993 the number of people unemployed was five times greater

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<sup>24</sup> It is hard to exaggerate the socialist legacy of bureaucracy and lack of commitment to service or support. For unemployment benefits, it may not be surprising to find administrators reluctant to provide assistance to those not working, given the socialist legacy of over-full employment. In part, this may stem from the relative imbalance between those requesting benefits and those in position to make it available; too few offices were initially opened to handle the flow of those registering as unemployed. However, even with regard to productive activities, the paperwork requirements in transition economies are overwhelming: duplicate forms must be filled out for domestic and foreign transitions, frequently these forms require notarization and supporting documents. Failure to provide documents, and mistakes in the paperwork, are fined in both cash and time. Inspectors have mushroomed into every dimension of economic life, from taxes to tea breaks. Foreign executives estimate that "bureaucratic rigamaroles" increase their costs by 20% (*Economist*, "Survey of Business in Eastern Europe," 22 November 1997, p. 20).

Those on the bottom rung of the income ladder found themselves much further from the top as the wage dispersion increased. Their ability to move up the ladder has been contingent upon the local demand for their skills. Poverty conditions are particularly severe for individuals with neither the appropriate skills nor the means to acquire additional training.

Declining real wages also contribute to poverty in transition economies. To the extent that increases in wages do not keep up with inflation, purchasing power is reduced and proximity to poverty becomes a reality. Table 6 illustrates the impact of changes in real wages during the initial stage of the transformation from plan to market; 1989 to 1994. The percentage decline in real wages reached double digits in all economies but Hungary, and was most severe in the Ukraine. In Russia, real wages fell to 34% of their 1992 levels in 1995 (Lehmann *et al.* 1997), and was particularly problematic among engineers, scientists, researchers and other professionals, who, in socialist times, held highly-paid, prestigious positions. The situation was more pronounced in the Central Asia republics of the former Soviet Union: in 1995 in Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, real wages were only one-quarter of the reported 1990 level. In Uzbekistan, the figure is about half (Klugman *et al.* 1997). If declining real wages in manufacturing is consistent with industry-level productivity changes, the result is viewed positively in terms of the overall transition process. In such analyses, however, the poverty consequences of declining real wages are not addressed. Interestingly enough, the experience of Hungary and Slovenia provide evidence that declining real wages in industry do not necessarily stop increases in the unemployment rate (Kajzer 1995).

In transition economies, poverty-level incomes frequently are associated with those employed part-time or working reduced hours. Evidence regarding the incidence of voluntary and involuntary part-time work is mixed. Lehmann *et al.* (1997), using a sample of current and former employees taken from personnel records of numerous firms in four regions of Russia in March 1996, find that 90% of those working reported full-time employment. Only 6.5% of their sample worked fewer than 40 hours per week. Of those who worked fewer hours, 50% reported working zero hours; that is, they reported themselves as

being on unpaid leave, despite having a permanent employment contract with their firm. In this same study (Lehmann *et al.* 1997), part time work never accounts for more than 5% of the sample in any of the regions covered by the survey. Involuntary part-time does not appear significant in absolute terms -- only 2-4% of those working less than full time reported doing so involuntarily.<sup>26</sup>

In a different survey project, Standing (1996) finds that the numbers of Russian employees involved in "short-time working" increased between 1995 and 1996, where reduced hours were imposed by production stoppages or other economic conditions. The incidence of "short time" or part-time work varied by industrial branch: in the wood and paper industry, the fraction of workers on short time for economic reasons (production stoppages, for example) rose from 5% to nearly 20% between May 1995 and May 1996; in construction materials, the percentages were 5% and 10%, respectively.<sup>27</sup>

Results also are mixed about fraction of workers on temporary lay-offs and unpaid leave. In one survey, this group represents less than 10% of employees in the sample (Lehmann *et al.* 1997). Standing (1996) finds that if workers on all types of leave (that is, unpaid, partially-paid and fully-paid leave) are included as a single group, more than 20% of the employees in engineering, and more than 30% of the employees in textiles and wood/paper would be classified as on administrative leave in May 1996.<sup>28</sup> In metals, construction materials, and chemicals, the fraction exceeded 10-15%. The relatively high incidence of unpaid leave and part-time work, especially to the extent that both are involuntary in nature, contributes to poverty-level incomes in transition economies.

People in transition economies who may be working full-time are likely to find themselves in

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<sup>26</sup> Russian women tend to engage in more part time work than men, but it does not appear to be the case that they work part time involuntarily (Lehmann *et al.* 1997).

<sup>27</sup> The trend seems to be that individuals are working fewer days per week rather than fewer hours per working day, perhaps giving them the opportunity to hold a second job in the formal or informal sector.

<sup>28</sup> Standing (1996) also finds that a significant number of Russian women were on long-term maternity leave -- about 3% of the total workforce. The incidence of women on long-term maternity leave was substantially greater in firms that had been cutting employment as compared to those that where employment was expanding or remaining stable.



others not receiving their monthly stipends.<sup>32</sup> How are people surviving? In transition economies, like developing economies, the poor rely extensively on informal and inter-household networks. Cox *et al.* (1997) report that 65% of the population in Poland in 1992 made use of household networks to improve their living standards. Barberia *et al.* (1997) suggests that inter-household transfers in 1995 accounted for 7% of total average income in Russia, compared to 5% in the Ukraine and 10% in Latvia.

Essential for those living in poverty, income and in-kind transfers from social networks in transition economies appear to be roughly the same size and scope as in developing economies (Kaufmann 1982, Kaufmann and Lindaur 1985). Accounting for 30% of pre-transfer income, inter-household (private) transfers in transition economies are large in comparison to government assistance (pensions, unemployment compensation benefits, disability benefits, etc). Private transfers also are large in comparison to benefits provided by employers (subsidized meals, medical services, and so forth). Not surprisingly, Barberia *et al.* (1997) show that in transition economies, like developed and developing economies, poorer households receive the greatest overall amount of transfers, and that private transfers most likely to be received by those who do not get any form of public assistance.

To date, much of the effort to combat poverty in transition economies has been associated with inter-household transfers and social networks (Type B policies). Taking inter-household transfers into account, Cox *et al.* (1997) estimates that the number of people who live below the poverty line drops from 30% to 6% of the population in Russia. It is still the case, however, that Russia ranks relatively low in terms of per capita GDP in comparison to the transition economies in Central and Eastern Europe.<sup>33</sup>

This paper explores the potential of industrial policy to be successfully employed as a measure to combat the poverty consequences of low wages and unemployment (Type A policy). To do so, it is first necessary to examine the obstacles which must be overcome in order for industrial policy to be an option in

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<sup>32</sup> In one year alone, 1992-1993, transfers as a share of income fell by 2.5% (Cox *et al.* 1997).

<sup>33</sup> In rank order, per capita GDP estimates for 1996 are: Czech Republic, \$4,778; Hungary, \$4,387; Slovakia, \$3,461; Poland, \$3,459; Estonia, \$3,000; Russia, \$2,985; Lithuania, \$2,700; Latvia, \$2,073, Romania, \$1,437; Belarus, \$1,308; Bulgaria, \$1,038; Ukraine, \$864; Moldova, \$443. See Business Central Europe, Annual Edition (December 1997), and Coopers & Lybrand, Business Investment Guide.

### *Persistence of Socialist Institutions and Informal Arrangements*

Historical evidence suggests that institutional change can be only marginal because norms, customs, and informal arrangements between individuals and organizations resist rapid change (North 1989). Transition economies inherited an initial stock of socialist institutions which facilitated control over economic activity by top officials in the political organization. Problems associated with information, monitoring, and enforcement dictated the selection and structure of the institutional and organizational arrangements in socialist economies. The economic structure, for example, was designed to minimize transaction costs associated with central administration and management. Producing units were relatively few in number, and consequently quite large.<sup>34</sup> Planners kept the assortment of output, as well as planned quality differentials, to a minimum, emphasizing self-sufficiency rather than specialization. Human capital became system specific (Eggertsson 1994), and the selection criterion for personnel advancement was loyalty to the political organization rather than qualitative or quantitative improvements in productive skills. Economies of scale and extensive growth enabled planners' goals to be met.

As the complexity of production processes increased, the lack of horizontal linkages between firms became more problematic. New technologies, indeed, new industries (electrical engineering, instrument making, chemicals, for example) required both intra- and inter-industry coordination. Failure to remove barriers between firms imposed a severe obstacle to economic growth. Moreover, the effects of old technology, inferior or inadequate inputs, and an underdeveloped communication and distribution infrastructure became more costly over time as the complexity of production increased.<sup>35</sup> Informal mechanisms to sustain operations became more important, and consequently, more entrenched.

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<sup>34</sup> It was not unusual in socialist economies to have large monopolies, or firms dependent upon a few alternative sources of supply -- in the Soviet Union, for example, more than 75% of the 6,000 main industrial products were manufactured at only one plant (Healy 1994). With the transition, and the dismantling or collapse of central planning, the highly integrated production chain broke down, causing near-catastrophic results in terms of output reductions.

<sup>35</sup> Yet, policy makers in positions to effect systemic change failed to do so (Eggertsson 1994). Winiecki (1990) argues this failure to act was driven by their recognition that their system-specific human capital would be devalued in a system driven by market forces.

policy to be effective in transition economies, it must start from the premise that government officials, managers, and employees are likely to behave much differently in response to traditional industrial policy options than their counterparts in a developed market economy.

#### *Lack of Market Institutions and Infrastructure*

Using industrial policy to combat poverty in transition economies also is hampered by the reality of underdeveloped market institutions and infrastructure. Centrally planned economies began the transition from plan to market with an obsolete capital stock, an underdeveloped mechanism for introducing new technology, a population accustomed to job security, and an extensive system of social services. More importantly, however, most lacked a legal structure that included property, contract or bankruptcy law.<sup>37</sup> Commercial banking and capital markets did not exist. Transportation, warehouse and other distribution networks failed to meet the needs of the socialist economy and were wholly unprepared to service the new demands of an emerging market economy.

Institutions appropriate to a market economy, that is, institutions that define how goods and services will be exchanged, how investment will take place, whether budget constraints will be soft or hard, are not automatically established when characteristics of market economies, decentralized trade and pricing, for example, are allowed to emerge.<sup>38</sup> Without the appropriate institutional framework, market-like allocative mechanisms and incentives cannot function in the traditional manner. The potential benefits of privatization and individual property ownership are constrained by the absence of capital and financial markets, as well as by a legal structure to enforce property rights. Thus, simply transplanting, from developed market economies into transition economies, industrial policies to stimulate efficiency and profitability will cause

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<sup>37</sup> Laws that were adopted in the early stages of the transition process tended to be only marginally better than those they replaced, in large part because they were drafted without consultation and often overlapped or contradicted each other. Perhaps the most notable example is the packaging rules adopted in the Czech Republic which gave firms manufacturing consumer goods only one month to introduce new labels. Discussions with foreign business executives indicate that common practice is more likely to get a special exemption for a particular company rather than get a bad law changed.

<sup>38</sup> The backwardness of the banking systems in transition economies is a frequently cited example. For interesting discussion, see *Economist* "Survey of Business in Eastern Europe," (22 November 1997), p. 16, and Hanousek and Filer (1997).

**Table 7: Export Reorientation of Transition Economies**

	<b>% Total Exports to West (1989)</b> (1)	<b>1994 Index of Exports (1990=100)</b> (2)	<b>% Change Exports to CMEA (1991-1994)</b> (3)	<b>% Total Exports to OECD 1994</b> (4)	<b>Export Reorientation Index</b> (5)
<b>Baltic States</b>					
Estonia	--	42	-66	19.4	26
Latvia	--	26	-46	27.4	39
Lithuania	--	30	-42	31.8	35
<b>Central Asian NIS</b>					
Kazakhstan	--	63	-6	2.3	49
Kyrgyzstan	--	23	-11	1.2	50
Tajikistan	--	29	-37	9.1	36
Turkmenistan	--	61	-9	5.9	47
Uzbekistan	--	38	-36	5.9	47
<b>European NIS</b>					
Belarus	--	37	-6	2.3	49
Moldova	--	49	-2	2.0	45
Russia	27.2 <sup>a</sup>	50	-35	7.5	48
Ukraine	--	40	-7	3.3	52
<b>Central and East European Countries</b>					
Bulgaria	8.2	67	-38	19.7	31
Former Czechoslovakia	34.4	139	-59	30.7	18
Hungary	48.0	103	-44	19.9	22
Poland	52.7	116	-68	14.5	21
Romania	37.7	134	-40	14.2	37

<sup>a</sup> Figure reported for USSR.

Source: Lavigne (1995), pp. 257-258; Frydman, Murphy and Rapaczynski (1998), Table 8.1, p. 252.

macroeconomic stabilization if the long-term core of unemployed is large in comparison to the labor force, or if the retraining process is prolonged. Across all transition economies, the incidence of unemployment tended to fall initially on the older, less educated workers in manufacturing and mining, as well as on women. The geographical concentration of industry, compounded by economy-wide housing shortages which restricted labor mobility, generated relatively high unemployment in some regions and contributed in turn to a relatively longer unemployment duration.<sup>42</sup> The poverty consequences have been severe, despite the fact that unemployment and employment reductions have been less dramatic than anticipated.<sup>43</sup> Financing large and growing unemployment compensation programs by increasing the deficit has inflationary consequences for the economy, which in turn contributes to a more widespread incidence of poverty.

Because the full force of transition has not yet been felt in labor markets, the magnitude of potential unemployment also imposes an obstacle to using industrial policy to combat poverty in transition economies. Numerous studies show an unsustainably low elasticity of labor to changes in output, sales, and wages in the early years of the transition process (Basu 1997, Boeri and Keese 1992, Lizal and Svejnar 1997, Anderson *et al.* 1997). In Russia, in particular, there is compelling evidence of considerable job security as late as 1995, three years after the initiation of the transition process (Lehmann *et al.* 1997, Linz 1997a). Prior to 1996, it appeared that Russian managers in privatized and state-owned manufacturing organizations attempted to maintain employment levels by offering low real wages, and systematically

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<sup>42</sup> Regarding the incidence and duration of unemployment in Russia, Foley (1997) finds that married women experience significantly longer unemployment spells compared to married men; older people unemployed longer than younger workers. While persons with higher education do not have significantly shorter unemployment (Foley 1997), and are more likely to find employment in different sector (Earle 1997), persons with higher education do tend to remain unemployed considerably longer before exiting from labor force. Not surprisingly, Foley (1997) finds that (1) if one lives in region where the incidence of unemployment is high, one's unemployment duration will also be longer; (2) persons laid off from their last job tend to have shorter duration of unemployment than individuals who quit last job, and that (3) duration becomes problem after 7 months -- if an individual hasn't found job by then, s/he is unlikely to do so.

<sup>43</sup> Poverty imposed by unemployment is linked to the fact that benefits payments are tied to past earnings. In Russia, for example, Foley (1997) estimates that unemployment benefits totaled approximately 11% of average wage in 1993.

In transition economies, nearly all elements of the transformation process vary by country and are constantly changing. More importantly, however, a single end result of chess is eventually and clearly reached, and neither player is likely to quibble. The end result of transition is neither clear nor unique, and there is likely to be much quibbling for generations to come.

To facilitate economy-wide restructuring, the opening and ongoing strategies of industrial policy are likely to focus on developing or enhancing the foundations of a competitive market economy. This will be no easy task. On the one hand, reducing the overall role of the state in the economy is an important component of the transition process (Frydman and Rapaczynski 1991). On the other hand, policy makers will be responsible for designing and implementing industrial policy measures. In a very real sense, if industrial policy is adopted to facilitate the transition or alleviate the poverty consequences of low wages and unemployment, there is a strong likelihood that the state will remain an important obstacle to change.

Having noted these uncertainties, the focus of this chapter is on whether industrial policy in transition economies might play an effective role alleviating the poverty consequences of low wages and unemployment. This section addresses the potential role of industrial policy in economy-wide restructuring. At the macroeconomic level, industrial policy would necessarily target the relative shares of (1) state and private economic activity, (2) manufacturing and services, and (3) within manufacturing, heavy and light industry. Equally importantly, industrial policy would incorporate mechanisms for providing investment funds for infrastructure development.

#### *State versus Private Economic Activity*

Restructuring a socialist economy to lay the foundations for a market economy to develop involves first and foremost a change in the relative proportions of state sector and private sector activity. Privatizing state-owned firms, property, and assets is a logical first step. However, privatization involves more than transferring ownership from the state to individuals or collectives. While a discussion of the nature and

poverty consequences of unemployment and delayed wages.

To alleviate the poverty consequences of transition which remain even after privatization, industrial policy is likely to focus on enterprise restructuring, which is described in the next section. A second strategy involves establishing conditions for the entry of new firms, which in turn contributes to product market competition. In all transition economies, the entry of small and medium-sized enterprises (SMEs) has accounted for a substantial share in the growth of private sector activity. In Poland, for example, private firms accounted for 16% of gross sales at the end of 1989; rising to 45% by the end of 1995. As seen in Table 8, private sector activities are estimated at 60% of GDP in the Czech Republic, Russia, Hungary and Slovakia. This is likely to be an underestimate given the extent of hidden (unreported to avoid tax) activities. Much of the private sector growth has been in services. At least half of the private sector activity is a spin-off from activities conducted by former state-owned enterprises (SOEs).

To facilitate expansion of private sector activities, industrial policy is likely to pursue several strategies simultaneously. First, in economies where macroeconomic stabilization policies have been effectively introduced and sustained — for example, the Czech Republic between 1990 and 1993 — the result has not been conducive to the successful operations of small business (Benacek and Zemplerova 1995). That is, such anti-inflationary policies as reduced government subsidies, higher interest rates and other restrictions on credits and loanable funds, constrained access to liquidity and investment funds by SMEs. Industrial policy could play a role in offsetting the adverse consequences on privatized and *de novo* firms of the macroeconomic stabilization policies by creating access to funds for investment purposes.

[Box 4.1: Access to Investment Funds]

Second, to the extent that an important component of the SMEs that account for a growing portion of private sector activities are spinoffs from former SOEs, particularly those with export experience, industrial policy can play a substantial role in facilitating the spinoff process. That is, Chang and Mann (1993) report that in Hungary, SMEs with successful export experience are located in those sectors that previously exported, or were important suppliers in the domestic market. Industrial policy could structure

#### 4.1 Access to Investment Financing

The lack of investment financing is a crucial obstacle in all transition economies. Without investment funds, enterprise and economy-wide restructuring will fail. The possibility of domestic firms self-financing their investment needs appeared unlikely in each transition economy. Consequently, the European Bank for Reconstruction and Development (EBRD) devised a series of programs to provide access to investment funds.

In RUSSIA, the EBRD with the support of the G-7 countries established a *Small Business Fund* to provide loans to companies employing 50 or fewer individuals. The EBRD extends a credit line to number of banks which in turn loan the money out on a commercial basis. In addition, in response to initiative agreed by G-7 governments and the European Union at the Tokyo Summit in July 1993 to provide new capital to help restructure privatized firms, the EBRD established eleven *Regional Venture Funds*. Each RVF has capital of \$30 million US to invest as new equity and quasi-equity capital in medium-sized and other private enterprises, with the stipulation that at least 75% of each RVF's capital must be invested in the "home" region. The RVFs were designed to support medium-sized enterprises (fewer than 5000 employees) that have been privatized and that have at least 75% shares owned by private shareholders, excluding firms whose principal business is in tobacco or tobacco products; armaments or where 25% or more of total income is from military-related purposes; in alcoholic beverages (excluding beer and wine); gambling; speculative activities such as real estate; banking, insurance or financial services; in illegal or immoral activities; or in activities that are on EBRD's environmental exclusion list. At the end of 1997, the RVFs had made investments in 15 privatized and 5 private companies. These firms employ 9000 people (about 450 per firm), and included wood processing, light manufacturing, food processing, textiles, technical components, construction materials, services and transport companies. Finally, the EBRD provided investment and venture capital to seven *Investment Funds* which in turn invested the money in export-oriented companies, or companies in industries where the particular Fund had a comparative expertise.

In BELARUS, the EBRD agreed in November 1994, to loan \$30 million US for a credit line for on-lending by local commercial banks to private SMEs. These funds were to be supplemented with technical assistance financed and provided by the European Community Tacis program.

In the UKRAINE, the EBRD has focused on two types of investment funding for SMEs and privatized companies. The first involved the Ukrainian Fund which was established in 1992 to make equity investments in SMEs, especially those involving the production of consumer goods and services for local market. So far the Fund has invested \$12.5 million US in 30 projects in several industries in Ukraine. The second, begun in December 1994, involves a credit line provided by EBRD to the National Bank of Ukraine which in turn will loan the money to SMEs. SMEs eligible to seek funding must either (1) propose investment project, or (2) be seeking financial assistance for foreign trade activities, or (3) be planning to use funds to cover cost of leasing. In addition, the EBRD has made loans to a number of firms directly: (1) *Obolon*, Ukraine's first privatized brewery, in December 1997 for \$40 million US -- to modernize operations and install new financial accounting system; (2) joint venture company, *Ukrainian*



ventures -- motorcycle factory modernization, tire manufacturing plant, ceramic products, textile company -- as well as a number of domestic firms: a weaving mill, a casting facility, a pulp and paper facility and a crankshaft manufacturer. In Slovakia, investment funding for private sector development targeted telecommunications, aluminum, chemicals, and agribusiness, with the objective of restructuring former state-owned firms, encouraging inflow of foreign capital, promoting export-oriented companies, and supporting military conversion activities.

Over 90% of EBRD's commitments in Hungary have been made in private enterprises or in connection with privatization of state-owned companies: paper and allied products, automotive, restaurants, hotels, chemicals and allied products, food processing, pharmaceuticals, printing. In Poland, the EBRD provided investment financing to assist 17 joint ventures (vehicles, steel, paper products, glass products, machinery, agribusiness, metal products, printing and publishing), 7 domestic companies (metal products, agribusiness, furniture). In Romania, investment financing focused on food processing and other light industry.

## 4.2 Supporting Women in Business

One of the first efforts to assist women, particularly those in regions where unemployment was expected to be above-average because of the concentration of defense production, is the Alliance of Russian and American Women (ARAW). ARAW is a nonprofit organization founded in 1991 to teach, support, and equip women in Russia to build their own businesses, create jobs, and achieve greater financial independence. One of the first Alliance programs began in 1994; a cooperative effort with the Aid to Artisans organization which had received USAID money to assist Russian artists to learn how to make their product suitable for marketing in the U.S. Over a period of two years, more than 400 Russian artists received training, many of whom attended the International Gift Fair in New York and successfully marketed their products.

ARAW supports the Volkhov International Business Incubator and Training Center which opened in February 1996 in Volkhov, a former "closed city." Within two years, the Volkhov Center had facilitated the establishment of 40 new businesses in northwest Russia. Several businesses were housed on the premises: a bakery, mushroom farm, cafe, print shop, photo lab, advertising firm, cellular telephone distribution company, and a financial consulting firm, represent a few of the Center's early tenants. The Center's objective has been to provide support to female-owned *de novo* businesses in the form of access to office and communication equipment, space, and financial and other consulting services. In particular, the Center offers English classes, computer training, and assistance in applying for start-up loans. Funding for the Center has been provided in part by grants from USAID and the Eurasia Foundation.

In addition to the Volkhov Center, ARAW sponsors annual conferences in different locales in Russia where Russians and Americans lead workshops and seminars to train new entrepreneurs in business skills, attitudes, and ethics. The program is complemented by a mentoring partnership which was initiated in March 1996 by Molly Boudreau, a graduate of Michigan State University. Working for Pony Express in Moscow, Boudreau put in place a mechanism for matching Western women executives currently working in Moscow with Russian interns. Working one-on-one and in group sessions each month, the goal is to assist Russian women in developing career and business strategies.

On an ongoing basis, ARAW conducts a Customer Service Training Course in Moscow, "Mirror, Mirror," as well as a series of workshops on career change and entrepreneurial opportunities. The Customer Service Training project, sponsored by the American Express Company and developed to train customer contact employees, especially in tourism and retail sectors, to date has involved more than 50 Russian women. The program is modeled after that used in Hungary, the Czech Republic and Slovakia. The career change workshops have been sponsored by Winrock International and were targeted to foster small business development in formerly closed cities of Siberia.

amount of domestic expertise and financing available to undertake the requisite infrastructure investment. Consequently, transition economies have relied on foreign financing and expertise to renovate or develop their infrastructure.

In the Baltic Republics of Latvia and Estonia, the European Bank for Reconstruction and Development (EBRD) provided loans for upgrading airport facilities. In Latvia and Lithuania, the EBRD provided loans for road improvements. In Estonia and Lithuania, EBRD funds were provided for water treatment facilities. Lithuania also received EBRD funding for expanding and improving the telecommunications network. In the Central Asian Republics of the former Soviet Union, EBRD funding targeted airport facilities in Tajikistan and Uzbekistan, and port facilities on the Caspian Sea in Kazakhstan. EBRD funding also targeted power facilities in Kazakhstan, Kyrgyzstan, and Uzbekistan, and telecommunications in Kyrgyzstan and Tajikistan. Transport and telecommunication dominated EBRD infrastructure funding allocations to Belarus, Russia and the Ukraine between 1994 and 1996. Similarly, transport and telecommunications accounted for the majority of EBRD-financed projects in the transition economies in Central and Eastern Europe.<sup>46</sup>

Investment in the physical infrastructure in transition economies facilitated the flow of information, materials, and product. Additional infrastructure and institutional developments were required, however. Most frequently cited in the transition economies literature is the need to develop the legal and financial sectors. The latter has been facilitated by EBRD assistance. In Russia, for example, the EBRD initiated a Financial Institution Development Project in August 1994 which targeted 39 commercial banks to play a key role in investment financing to privatized (and restructuring) companies. This project complements ongoing support to Russian banks to assist the financial needs of the growing private sector. In the transition economies of Central and Eastern Europe, the EBRD provides support to the banking sector in the form of equity investments, advisory services, and foreign currency loans. Overall, nearly half of the EBRD projects in these economies focus on the developing the financial sector.

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<sup>46</sup> For a listing of the infrastructure projects financed by the EBRD, see <http://www.ebrd.com/operations>.

transition economies is in anything but agreement when it comes to identifying, much less quantifying, the changes required for former SOEs to survive in the post-transition economy.<sup>49</sup> For example, in one of the earliest studies of Russian firms, Commander *et al.* (1993) focus on physical indicators: changes in output and employment, and on financial indicators: enterprise sales and profits, as a measure of the extent of enterprise restructuring. In one of the more recent studies, Earle and Estrin (1997), using data compiled by the World Bank, develop an index of restructuring that aggregates numerous dimensions into a single weighted variable. They use this index, as well as improvements in labor productivity, as a dependent variable to be explained by a variety of independent variables, including ownership structure and industry. An important contribution of their work is the explicit recognition of the endogeneity between restructuring and ownership structure in transition economies.

One possible explanation for the lack of clear consensus about what constitutes enterprise restructuring in transition economies is that “restructuring” means different things at different points in the transition process (Linz and Krueger 1998). In the initial stage of transition, enterprise managers were concerned primarily with finding their market niche and re-orienting their assortment and improving their product quality in order to meet the needs of customers within that niche. In some cases, this required relatively minor changes in production assortment. However, as inflation raged and links with former customers and suppliers were ripped apart, revealing one's niche was no easy task. Some firms elected to expand the production of goods that accounted for less than 10% of their pre-transition assortment. Others initiated a number of low-cost service and production activities quite unrelated to their main assortment.

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<sup>49</sup> Examining the experience of 75 large Polish firms in 1991 and again in 1992, Pinto, Belka and Krajewski (1993) rely heavily, although not exclusively, on financial variables as indicators of restructuring. Their study differentiates firms according to levels of profit, with “AAA” firms having positive after-tax profits, “AA” firms having positive pre-tax profits, and “A” rated firms having negative gross (pre-tax) profits. They find that firms in the chemicals and food industries were more likely to be rated “AAA,” while firms in machine tools and steel were more likely to have negative gross profits -- an “A” rating. Bleka *et al.* (1994) surveyed 200 Polish firms in 1993. Their analysis utilizes physical changes in output and employment as the measure of restructuring, although they also provide information on after-tax profit margins and investment as a percentage of sales as additional indicators of restructuring. Estrin *et al.* (1995), in a comparative study of firms in Czechoslovakia, Poland and Hungary, emphasize profits per sales and export per sales as indicators of enterprise restructuring. Their study also utilizes less quantifiable measures of restructuring, such as whether or not the firm has adopted a short-run and/or long-run business plan.

post-transition environment.

In an effort to combat the poverty consequences of unemployment and low wages, industrial policy in transition economies is likely to pursue three distinct strategies, all of which necessarily focus on three dimensions of enterprise operations: production, employment, and finance. The first involves closing firms that are economically unviable even in the short run. Industrial policy provides the guidelines by which the firms' assets are distributed to creditors, as well as guidelines for engaging the firm's workforce in socially purposeful or publicly useful jobs (Lubyova and van Ours 1997). The second involves temporarily sustaining firms that are non-viable in the long-run; that is, firms which will be non-viable in a market economy. Using industrial policy to sustain such firms is necessary in order to (1) avoid disruption of requisite supplies to downstream firms or (2) maintain employment in regions where the local impact of closing the firm is greater than the potential employment options or income supports funds in the near term. The critical feature here is a clear designation of the objective -- industrial policy as a damage control device, to mitigate the costs of restructuring and resource allocation by keeping the firms afloat until the employment consequences are manageable. Equally important is a clear designation of the termination date. Finally, to facilitate the restructuring of firms likely to survive in the post-transition environment, industrial policy would focus on improving the production, employment, and financial operation of the firm to enhance its competitive position in both domestic and global markets.

#### *Close Value-Subtracting Firms*

Socialist planners viewed all output as valuable because it was, by definition, required to fulfill the plan. Yet, not all production in socialist economies created value. Anecdotal evidence of value-subtracting activities abound in publications addressed to the foreign business community. Potential investors are inundated with examples like that of the sawmill which produced planks worth less than the original tree trunks, even without including the cost of labor, energy, capital or other materials. While clearly disruptive for employees and others directly involved with such enterprises, closing "negative value added" companies without delay imposes less cost to the society overall. It is less costly in economic terms to pay workers

businesses, some totally unrelated to the main product line. It was not unusual, for example, to have a machine tool plant also producing bathroom fixtures and chandeliers, as well as providing housing, child care, and recreational facilities to current employees and retirees, and their families. The planned economy, with its emphasis on fulfilling production quotas and self-sufficiency, and lack of emphasis on cost control or profitability, contributed to large, vertically-integrated manufacturing facilities employing thousands of people. Many of these firms are unlikely to survive the transition process intact. Even with substantial restructuring, some (or most) aspects of the original firm will cease to exist.<sup>50</sup> Where such firms hold a monopsonistic position in local labor markets, or are the sole supplier of inputs to one or more downstream firms that have survival potential in a competitive post-transition economic environment, the social cost of closing the firm, even if it is inefficient or unprofitable, is much greater than the social benefit. Consequently, industrial policy may be used to to keep these enterprises running in the short-run in order to combat the poverty consequences of unemployment.

Using industrial policy to attenuate the unemployment problem and redistribute the costs over time would require that the firm, as a single entity, be programmed for gradual elimination. This would necessitate developing a production and financial strategy that would force the firm to focus on cost minimization and finding ways to avoid delaying wage payments. Sustaining the operations of firms in this category also would enable these enterprises, with or without the assistance of outside consultants, to assess the relative strengths of different divisions, targeting for development those divisions that are potentially competitive in domestic or global markets.

To combat the poverty consequences caused by low or delayed wages associated with non-viable firms, as well as the unavoidable unemployment that will result from the eventual closing of these companies, industrial policy would necessarily incorporate two elements. One involves supporting the financial position of the firm in such a way as to (1) avoid a situation of wage arrears, and (2) develop the

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<sup>50</sup> Numerous studies show privatized firms reducing their offering of social benefits to employees; what workers formerly saw as an entitlement of the job is no longer routinely offered. For further discussion, see Blasi *et al.* (1997), Brada *et al.* (1996), Schaffer (1995), and Standing (1996), for example.

To the extent that firms in this category are characterized as having substantial “hidden unemployment within factory gates,” industrial policy must also address local labor supply and labor demand conditions. This might be done by encouraging job sharing or part-time work (reduced hours) by offering supplemental transfer payments. Such a policy is the mirror image of the Hungarian model of allowing wages to supplement unemployment benefits. Industrial policy might also address the establishment of training options as a means of delaying entry to into the local labor force. Sending youths to different regions to work on specific public works — domestic peace corps, for example — would be one method of accomplishing this goal.

Implicit in the use of industrial policy to temporarily sustain non-viable firms is the notion that as the transition succeeds and the economy recovers, the pull of a thriving private sector reduces the hidden unemployment in existing firms. An appropriate industrial policy still recognizes that the skills of the existing workforce are not likely to match what is needed in the post-transition economy. Thus, even expansion of small-scale firms and self-employment in the private sector will not absorb the entire amount of the transition-induced unemployed.

#### *Assist Viable Firms*

Who are the “potential winners”? Which are the viable firms? Firms with a relatively high labor share of value added, particularly when this involves a high proportion of skilled workers; firms that compete on the basis of cost rather than quality (heavy engineering, steel, and so forth); firms that provide consumer goods or services for the household sector; and firms that address the overall service needs of the economy (tourism, hotels, catering, repair, and the like) would most likely fall into the category of “potential winners” in transition and post-transition economies. The viability of these firms is contingent upon (1) successful restructuring if they are privatized firms, and (2) access to investment funds if they are privatized or *de novo* firms.

In the conventional view of enterprise restructuring in transition economies, former SOEs that did not export a majority of their output to the West are technologically obsolete, and without managerial skills

involves using industrial policy to assist in the restructuring of firms that will be supplying joint ventures or foreign-owned firms; that is, firms like *Skoda* in the Czech Republic and *Tungsram* in Hungary. If resources allocated to industrial policy measures are scarce, it may be politically prudent to assist firms without foreign connections. When considering the role of industrial policy in alleviating the poverty consequences of low wages and unemployment, however, it may be economically prudent to put resources into those areas that have the highest expected wage and employment payoff.

A final area for consideration in the use of industrial policy to assist “winners” and thus alleviate the poverty consequences of low wages and unemployment involves developing financial assistance programs, particularly as they relate to the accessibility of investment funds. In the Czech Republic, as in other transition economies, existing firms tend to continue receiving credits (loans) even for non-performing projects, while *de novo* firms tend to face expensive external finance for investment projects. Frequently, *de novo* firms are denied access to investment funds from domestic banking sector (Lizal and Svejnar 1997). Given the wage and employment effects of developing a competitive private sector, industrial policy measures may be a key to providing access to investment funds for privatized and *de novo* firms.

#### ***VI. Costs and Benefits of Industrial Policy in Transition Economies***

In transition economies, there is clearly a twofold role for industrial policy. First, industrial policy, in principle, could be designed to create conditions where the economic environment is characterized by well-trained workers in properly managed companies, selling high-quality goods and services; where financial institutions are developed which channel savings into productive uses; and where a public administration is put in place that enhances productivity rather than cripples it. That is, industrial policy would be designed to motivate restructuring, as well as to assist in restructuring efforts at both the economy-wide and enterprise level. In effect, industrial policy can complement market forces which either promote restructuring, or cause firms, sectors, or regions to face bankruptcy. At a minimum, industrial policy would facilitate improvements in general managerial skills, enterprise-level organization, financing and utilizing complex technology, and labor training (re-training).



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Second, industrial policy in transition economies has the potential to mitigate the poverty consequences of low wages and unemployment caused by the socialist legacy. In this regard, industrial policy within each country would focus on the causes of low wages and unemployment, and adopt measures appropriate to the cause. The ability to adopt industrial policy to combat poverty is constrained by institutional and infrastructure arrangements. Regardless of the country, however, industrial policy will likely involve at least temporary labor retention in economically non-viable firms because, in the short run, keeping these firms afloat imposes greater social benefits than social costs.

The use of industrial policy in transition economies is not without cost. In part, costs will arise when industrial policy does not work as it is supposed to because of the organizational and institutional arrangements in place at the time it is adopted.<sup>55</sup> In part, costs will arise because industrial policy works too well. An example of the latter case is when industrial policy causes privatized firms to become profit maximizers, with the result that real wages will fall (given current productivity estimates), as will employment at these firms. Thus, in this case, at least in the short-run, industrial policy contributes to the poverty consequences of transition. Aghion *et al.* (1997) illustrate a second example where industrial policy can have a negative effect on growth in transition economies. Such an outcome will have an impact on both the incidence and duration of poverty in transition economies. Perhaps the most troubling aspect of the use of industrial policy in transition economies is the fact that where it can be used, that is, where the institutions and other arrangements are in place, is mostly likely where it is least needed and perhaps most disruptive in terms of facilitating the transition process. Thus, it is not clear *a priori* whether the use of industrial policy to combat poverty in transition economies represents two steps forward or one step back.

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<sup>55</sup> For a discussion of this problem as it relates to Latin American countries, African countries, and several East Asian countries, see Lall (1994).

to run modern production processes.<sup>52</sup> Potentially viable firms, at least initially, are unlikely to be significantly different from this characterization. Thus, to combat the poverty consequences of low wages and unemployment in transition economies, the role of industrial policy in enterprise restructuring will necessarily incorporate production, employment and financial elements that are designed to minimize costs or improve productivity.<sup>53</sup> Promoting management training that is consistent with decision making in market economies represents a cornerstone in this effort.<sup>54</sup> Managers without the ability to prepare and implement a realistic business plan are unlikely to lead their firm successfully into the post-transition economy. At a minimum, this involves focusing on the volume and assortment of current and future production, as well as on identifying the optimum level and composition of the firm's workforce.

There are, however, numerous pitfalls to avoid when considering how to develop industrial policy appropriate to privatized firms in transition economies. For example, where capital, product and labor markets are not well-developed or do not function smoothly, price and profitability signals do not have the same meaning as in developed market economies. Thus, policy makers in transition economies can legitimately ask whether it makes sense to calculate profitability on the basis of world market prices, and then use this measure in industrial policy decisions. In a study focusing on Bulgaria, Czechoslovakia, Hungary, and Poland, Hare (1993) proposed a wide range of performance measures in order to take into account this situation. In transition economies, some branches initially may be very competitive, while others may be extremely unprofitable initially when calculations are made at world prices. Hare's analysis takes into account the fact that these initial conditions could change as labor, capital resources and other materials are reallocated in accordance with the changing economic environment. A second example

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<sup>52</sup> Exceptions might include firms that established a lease-holding ownership structure prior to the initiation of the transition process.

<sup>53</sup> Estimates of productivity improvements in the range of 30% annually are described in discussions with managers of firms in Russia. This might provided a guideline for the extent of workforce downsizing required by firms that intend to succeed in the transition process.

<sup>54</sup> The range of material to be covered in such training programs will vary by country; that is, by exposure to western financial and accounting practices, but in every case it is expected that certain challenges will necessarily be overcome; that is, training managers to pursue a just-in-time inventory strategy instead of a just-in-case strategy.

potentially viable/competitive divisions. The second involves addressing local labor supply and labor demand conditions. Given the complexity of the factors contributing to the firm's current situation, it is unlikely that any industrial policy will generate an economically efficient outcome. Rather, the success of industrial policy in this case would be gauged against the ability to avoid the substantial social costs associated with closing the company in the short-run, or sustaining the company indefinitely.

Regarding the financial position of firms designated for closure, and how to overcome the inevitable situation of wage arrears arising from liquidity constraints, industrial policy might pursue a number of strategies all targeted at cost minimization and developing potentially viable divisions. First, to sustain production and alleviate existing financial shortfalls, industrial policy could incorporate subsidies for energy in the form of IOUs or coupons to submit to the appropriate energy firm. Industrial policy might also address access to loanable funds to offset liquidity constraints, especially to the extent that liquidity constraints stem from the growing use of barter transactions (40% of total sales in Russian manufacturing firms; see Hendley et al.1997). Access to loanable funds would be facilitated for those firms submitting a proposal for (1) developing viable divisions, (2) terminating non-viable divisions that do not involve deliveries of requisite material inputs to downstream firms, or (3) minimizing overall costs. Imposing an excess wage tax as a means for reducing labor costs has been woefully ineffective<sup>51</sup> and would not be supported by any industrial policy. Instead, industrial policy would target a practice of exempting wage increases that are matched by productivity improvements. This has been particularly successful in Hungary, where exempt wage increases are linked to productivity, and in the Czech Republic, where exempt wage increases are linked to profitability. Finally, using industrial policy to *reduce* barter transactions and thereby improve the cash-flow situation of these firms would involve the state acting as an intermediary buyer for those materials necessary to downstream firms.

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<sup>51</sup> Experience has shown that an excess wage tax is easily avoided, and generally disruptive. The underlying idea was to define permitted wage growth in terms of overall enterprise wage bill in order to generate greater rate of labor shedding within enterprise. The excess wage tax made it difficult for firms to attract skilled workers or motivate higher effort or acquisition of new skills. As such, the excess wage tax in effect penalized better-off firms.

unemployment benefits and retrain them than to keep such an enterprise running.

To offset the poverty consequences of unemployment caused by the closing of value-subtracting firms, industrial policy would necessarily focus on employment-creating options, particularly in expanding sectors of the economy such as the construction and processing industries, and in professional, repair, and other services. Perhaps requiring a stretch of the imagination to classify these as industrial policy options, Lubyova and van Ours (1997) describe a number of strategies employed in transition economies to provide individuals with socially purposeful or publicly useful jobs. Bulgaria has successfully pursued a temporary work program. Slovenia, the Czech Republic, Hungary, Slovakia and Poland also have established programs for individuals released from “unproductive firms” (Godfrey 1995). Hungary, like China and Germany, set up special enterprises to absorb workers who have been laid-off or permanently released. The state-subsidized employment companies hire “released” workers for a period not to exceed two years at a wage not less than the federal minimum to undertake various public works projects. These employment companies are subsidized by the state to provide assistance with job search and training, as well as assistance with starting a new business (Godfrey 1995). In Poland, assistance also is provided to individuals considering self-employment. To finance this program, the Poles require repayment of the money advanced for such assistance (O’Leary 1997).

Industrial policy appropriate to such circumstances might also address labor mobility obstacles. Individuals released from value-subtracting firms could receive a stipend to cover expenses associated with job search and relocation. However, cultural factors, and the strength of family and community ties, for example, may undermine the potential success of this option if individuals are unwilling to move.

To offset the poverty consequences of unemployment associated with the closing of value-subtracting firms, industrial policy might also establish a mechanism for employees to receive a one-time “dividend” from the sale or lease of the firm’s assets, including property.

#### *Temporarily Sustain Non-Viable Firms*

State-owned firms in socialist economies tended to incorporate a sprawling mix of different

Managers successful in identifying their market niche during this first phase of restructuring were able to demand cash payment (and frequently prepayment) from customers. Access to cash (1) enabled these firms to adopt formal mechanisms for enterprise restructuring, (2) permitted more reliable wage payments, which in turn enabled these firms to retain their skilled labor, and (3) provided a source of investment funds. Firms proceeding to the second phase of restructuring increasingly directed their efforts towards process improvement (efficiency gains) and cost reductions.

Successful internal restructuring did not guarantee the firm's financial or market position. Arbitrary and generally corrupt governmental interference, especially by local officials, impeded day-to-day operations, as well as long-term strategic planning. In Russia, it was not unusual to hear of local officials frequently, and unilaterally, altering the terms of the firm's lease. Nor was it unusual to hear managers recount numerous delays or denials regarding permits for the construction of new facilities. Local authorities "sat" for months or years, leveraging their ownership position by demanding bribes and/or delaying payment for services rendered. Moreover, successful internal restructuring may be viewed to some extent as a miracle, given Russia's confiscatory and egregious tax policy. The bewildering array of loopholes contribute not only to the capricious behavior of government officials, but also to rather bizarre arrangements by Russian firms to simply meet their wage bill and other expenses in a timely manner. Most striking are the barter deals managers arrange to generate cash to pay wages and taxes, as well as the barter transactions necessary to acquire the requisite materials and energy. Firms not in close proximity to final consumers; that is, firms without routine access to cash, typically acquired trading debt (*vekseli*), and/or extended their participation in the informal sector.

Thus, depending upon the time frame under which we are observing privatized firms in transition economies, we are likely to see very different behavior directed towards restructuring. Comparisons across firms at different stages in the restructuring process, compounded by the relative mix of formal and informal restructuring mechanisms employed by the firm at any given time, may lead researchers and policy makers alike to draw inappropriate inferences about a firm's restructuring activities or potential for survival in the

## V. *Industrial Policy and Enterprise Restructuring*

A common theme in the burgeoning literature on transition economies highlights the importance of enterprise restructuring in successfully completing the transformation from plan to market. In its most general specification, enterprise restructuring is described as “the process that enables a firm to operate successfully in a market economy” (Ernst et al. 1996, pp. 2-3).<sup>47</sup> This process may be initiated by the firm: “pro-active restructuring” (Krueger 1995); it may include activities that ultimately result in resources going to their highest valued use: “positive restructuring” (Jeffries 1996). Earle and Estrin (1996) describe “short-term restructuring” as reductions in the labor, energy and material intensity of production -- without offsetting increases in capital intensity -- to raise the overall efficiency of enterprise operations. To the extent that restructuring activities initiated by the firm take into account a long-term perspective, that is, maximizing the long-run value of the firm, the process is termed “strategic restructuring” (Ernst et al. 1996); or “long-run restructuring” if firms undertake investment in new capital to improve production techniques or implement new R&D incentives (Earle and Estrin 1996). Privatized firms “seeking to change as little as possible while retaining substantial insider control” (Ash and Hare, 1994, p. 633) are categorized as in a “defensive restructuring” mode.<sup>48</sup> If firms pursue a “wait and see” strategy with regard to the continued availability of government subsidies -- “passive restructuring” (Sutela 1994, Linz and Krueger 1996, Ernst et al. 1996), or if the manager exploits the firm’s assets for short-term gain -- “negative restructuring” (Ellman 1994, Jeffries 1996), the general consensus in the literature is that the duration of transition will be prolonged, and thus the overall cost imposed by the transition process will increase.

As Blasi *et al.* (1997) point out, the mechanics of restructuring incorporate a wide range of activities — they list nearly 70 “important numbers on restructuring” (Table 10, pp. 203-205). Perhaps more than anything else, Blasi *et al.* (1997) highlight the fact that the existing literature on enterprise restructuring in

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<sup>47</sup> The restructuring process would involve only those firms that were in operation in the former socialist centrally planned economy, regardless of their current ownership structure (state or non-state owned); it would not apply to newly-created private firms (*de novo* firms).

<sup>48</sup> See also Ernst *et al.* (1996) for a discussion of defensive restructuring.

investment. Industrial policy would also play role in the identification and closing down inefficient firms. In this way, industrial policy may be used to restructure the economy in order to move away from existing conditions which are dominated by the socialist legacy.

The likely outcome of industrial policy measures targeted at economy-wide restructuring is the growth in service sector activities. As seen in Table 8, services have grown to half of total economic activity in many of the transition economies in Central and Eastern Europe and the former Soviet Union. This argument also is made by Hare (1993), Landesmann (1993), and others, with the caveat that the ultimate objective of industrial policies in transition economies is to establish conditions for a competitive market economy emerge. In their view, this will require a rather substantial change in behavior of existing managers, as well as a substantial change in the operation of existing firms.

#### *Heavy versus Light Industry*

A final aspect of economy-wide restructuring involves the reallocation of resources away from heavy industry (especially military production) to consumer goods production. As economic recovery occurs and market forces emerge, this reallocation from heavy to light industry, as well as from military to civilian production, would occur rather naturally. Industrial policy has the potential to play an important role in regions where military production dominated economic activity in the socialist economy. That is, industrial policy could easily be targeted toward assisting regions where the all possible means for acquiring investment funds for renovation and retooling have failed; the depressed local conditions are such that neither domestic nor foreign funds are likely to become available. In this way, industrial policy alleviates the regional poverty consequences of the transition process.

#### *Investment Funds for Infrastructure Development*

It is hard to exaggerate the magnitude of infrastructure restructuring and development required by transition economies. In telecommunications alone, transition economies provide service to only half of the households that would be served in a developed market economy of comparable population, or developing economies with similar per capita income (Carbajo and Fries 1997). It is equally hard to underestimate the



subsidies or tax breaks to facilitate the development of SMEs targeting these activities.

Third, to facilitate growth of private sector activities and enhance competition in product markets, industrial policy would necessarily work in tandem with organizations like a small business development association. In this regard, industrial policy could be targeted toward providing assistance with finding and leasing space, obtaining appropriate office equipment, and offering training programs in accounting, finance, and personnel management. Such strategies have been successfully employed in Russia, for example, to assist female entrepreneurs. As Fingleton (1996) and Saunders (1996) point out, however, the inherited economic structures, political constraints, and legal systems in the Czech Republic, Hungary, Poland, Russia, and Slovakia make it impossible to assume that industrial policy can be implemented in transition economies with the same results as in developed market economies, or even in the same way across different transition economies.

[Box 4.2: Supporting Women in Business]

Traditionally, industrial policy has not been used to enhance competition in factor markets. It may be necessary for industrial policy to take on this role in transition economies, however. In labor markets, industrial policy would be targeted toward enhancing the mobility of employable workers, and facilitating the retraining and job search activities for that segment of the workforce that is employable after retraining. In capital markets, industrial policy would be targeted toward ensuring neither domestic nor foreign financial institutions acquire a disproportionate share of the productive assets. No clear role for industrial policy emerges with regard to property markets.

*Industry versus Services*

Ghatak and Roberts (1997) argue for industrial policy in transition economies to foster an unbalanced growth outcome, where the targeted or key sectors are determined on the basis of linkage analysis. The main pillars of the post-transition economy are established based on an analysis of domestic conditions and demand, and on potential comparative advantage in global markets. Industrial policy would then be adopted to increase efficiency in these key sectors by making available sufficient funds for new

*Wave*, that will install and operate a digital communications network in city and oblast of L'viv, and (3) *Svitoch*, Ukraine's first privatized confectionary company, (4) in November 1995 to invest \$18 mil US in *Iveco-Kraz*, a joint venture between Italy's leading commercial vehicle manufacturing part of the FIAT group and Ukraine's largest truck manufacturer. EBRD's commitment represents about 30% share, while Iveco and Kraz hold 58% and 12%, respectively. Ukraine's leading sunflower oil extraction company was the first edible oil processing plant in Ukraine to be privatized. EBRD took equity stake (41.7%) with investment of \$8.5 mil US. Finally, EBRD financing has been used for drilling of four new oil wells, and constructing pipeline and rail loading facilities.

In the BALTIC REPUBLICS (Estonia, Latvia, Lithuania), the EBRD established the *Baltic Investment Special Fund* in April 1992 with funding from the governments of Denmark, Finland, Iceland, Norway and Sweden to promote private sector development through support of SMEs. The *Baltic Investment Fund* was established in August 1995 to undertake equity and equity-related investments in medium-sized firms. Finally, the *Post Privatization Fund* established in 1996 with 15 million ECU was approved to help privatized firms in Lithuania restructure and modernize.

In the CENTRAL ASIAN REPUBLICS (Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan), the EBRD established a *Post Privatization Fund* in Kazakhstan with the approval in December 1993 of a loan for \$122 million US to finance credit line for SMEs, to be administered thru 3 local banks via the National Bank of Kazakhstan. By October 1996, 12 projects approved (total of \$40 mil US). PPF will facilitate future project investments. The EBRD is continuing to support development of the mining industry in Kazakhstan, Kyrgyzstan and Uzbekistan through specific project-related activities in gold, copper, lead and zinc industries. In Uzbekistan, the EBRD is assisting *Uzbekneftegas*, the national oil and gas company, through the Fegana Refinery Rehabilitation Project, to install a desulphurization unit to process high-sulfur domestic crude oil, as well as to increase safety and environmental conditions at refinery. Finally the EBRD is encouraging medium-sized foreign oil companies to establish long-term presence in Turkmenistan, with hope of introducing modern technologies on small scale; introduce western management practices, and test alternative routes for exporting limited quantities of oil by sea, rail or road.

In the CENTRAL AND EAST EUROPEAN COUNTRIES (Bulgaria, Czech Republic, Slovakia, Hungary, Poland, Romania), the EBRD's primary focus has been on privatized firms and joint ventures. For example, in Bulgaria, in March 1994, EBRD made equity investment in *Danone-Serdika*, a joint venture between French and Bulgarian firms, to upgrade and modernize existing product line and equipment in order to improve quality and extend shelf-life for existing products; December 1994, EBRD made equity investment in *Delvi-P*, a Bulgarian-Greek joint venture, to expand existing production capacity and install new production lines; October 1996, loan to consumer goods/personal care company; October 1996 equity investment in food processing company; June 1997, equity investment to facilitate privatization of soda ash producer.

Similarly, in the Czech Republic, the EBRD has provided direct investments in several joint

**Table 8: Private Sector Share of GDP, 1995; and Service Sector  
Share of GDP: 1993, 1995  
(percent)**

	Private Sector	Service Sector	
	Share of GDP	Share of GDP	
	1995	1993	1995
<b>Baltic States</b>			
Estonia	65	57.9	63.7
Latvia	60	53.1	57.2
Lithuania	65	50.7	55.0
<b>Central Asian NIS</b>			
Kazakhstan	40	41.8	52.1
Kyrgyzstan	45	27.3	32.9
Tajikistan	15	30.7	35.5
Turkmenistan	18	37.0	--
Uzbekistan	40	40.8	47.3
<b>European NIS</b>			
Belarus	15	46.2	54.6
Moldova	35	27.8	--
Russia	60	48.9	49.2
Ukraine	40	45.2	--
<b>Central and East European Countries</b>			
Bulgaria	45	54.4	51.1
Czech Republic	70	51.3	53.3
Slovakia	65	53.1	56.4
Hungary	70	61.8	61.0
Poland	60	50.0	50.9
Romania	45	38.1	36.9

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Source: EBRD *Transition Report 1995*, p. 11; EBRD *Transition Indicators*, 1996; UN Economic Commission *Trends in Europe and North America 1996/97*, p. 108.

scope of the privatization programs adopted in transition economies exceeds the scope of this chapter,<sup>45</sup> it has clearly been the case that privatization has had an effect on wages and unemployment, and thus poverty conditions. This analysis focuses on using industrial policy to complement privatization as a mechanism for expanding private sector activity in a formerly socialist economy.

For privatization to generate positive production and employment outcomes in transition economies, it is necessary to ensure competition in both product markets and factor markets. Product market competition requires establishing conditions for the entry of new firms, as well as developing an environment and mechanism for improving the operations of existing firms. Privatization is expected to improve the operation of existing firms in transition economies (Blasi *et al.* 1997, Brada 1996, Husain 1994, Linz 1996). Wojtyna and Hausner (1993) and van Brabant (1993) explore the use of industrial policy to complement the privatization programs adopted in transition economies. In their analyses, however, no concrete role for industrial policy to combat the poverty consequences associated with the transition process is described. Consequently one can only propose a number of options that might be considered.

In principle, for a given level of enterprise overstaffing, privatized firms are likely to release more “redundant” workers than their state-owned counterparts if budget constraints are indeed hardened by the privatization process. Firm-level data from numerous transition economies tend to support this proposition (Earle 1997, Linz 1997b). Moreover, in principle, for a given level of production, privatized firms are likely to pay higher wages than their state-owned counterparts. This result is driven partly by the productivity increases associated with greater workforce downsizing in privatized firms and partly by the fact that employees tended to acquire ownership of their firm. Firm-level data across transition economies, as well as across industries within a particular transition economy, are mixed about the relationship between wages and productivity, and wages and ownership structure. The data do suggest, however, that privatized firms are equally likely to delay wage payments to employees. Thus privatization by itself does not offset the

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<sup>45</sup> For a discussion of this topic see Bornstein (1997), Frydman et al.(1992 1993), Gray (1996), and Jeffries (1996).

delaying wage payments to workers. As the private sector grows as a proportion of total economic activity in Russia, the employment security described by workers in privatized and state-owned firms as late as 1995 will diminish (Bilsen and Konings 1997, Healy 1994, Jackman 1994, Kajzer 1995). In both Poland and Hungary, where market institutions and conditions were more readily adopted, there has been a much higher elasticity of labor with respect to changes in output. It appears that in transition economies, in general, the responsiveness of employment levels to changes in output, sales, and wages tends to grow over time. It also appears the changes in employment levels are highly correlated with ownership structure (Earle and Estrin 1997),<sup>44</sup> but that unemployment is not automatically reduced as a consequence of private sector expansion (Bilsen and Konings 1997, Jackman 1994, Kajzer 1995, Standing 1996)

Industrial policy by itself unlikely to reduce the significant group of long term unemployed. Industrial policy has the potential, however, to reduce the poverty consequences of potential unemployment, that is, where unemployment currently is low but likely to increase substantially in the future. To reduce potential unemployment and create conditions for the payment of higher real wages, industrial policy would necessarily incorporate both economy-wide and enterprise restructuring.

#### ***IV. Industrial Policy and Economy-wide Restructuring***

If the transition process is indeed like a game of chess, the opening strategies to initiate the transformation from plan to market involved decentralizing foreign and domestic trade, liberalizing prices and wages, selecting a privatization program, and establishing a level of commitment to macroeconomic stabilization. Industrial policy represents an ongoing strategy to minimize the unnecessary or unwarranted loss of pawns as the game proceeds. The difference between chess and transition, however, is the fact that, regardless of the country in which it is played, chess has uniform and well-established rules: the number of players, the number of pieces, the movement of each piece, and even the time constraints are well-defined.

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<sup>44</sup> Earle and Estrin (1997) investigate the relationship between the incidence of lay offs and ownership structure. Using data collected from Russian firms, they find that in firms characterized by worker ownership, there are fewer layoffs than in state-owned enterprises (SOEs); managerial ownership coincides with more lay offs than SOEs; in firms where there is significant share of outside ownership, there is no significance difference in the incidence of layoffs in comparison to SOEs. In the initial stage of transition process, the women were more vulnerable to layoff (especially classified as maternity leave).

much less than in countries with a relatively high export reorientation index.

### *Magnitude of Actual and Potential Unemployment*

The third main obstacle to using industrial policy to combat poverty in transition economies is the magnitude of actual and potential unemployment associated with the transformation process. If industrial policy is successfully used to restructure privatized enterprises and the overall economy to compete effectively in global markets, unemployment rates would likely rise in the short-run by 25% to 50%; that is, by an amount approximately equal to enterprise overstaffing in socialist economies.<sup>41</sup> This range also coincides with the socialist legacy of a relative over-allocation of resources and labor to heavy industry. It is unlikely that private sector expansion could fully absorb all redundant workers, especially given the financial and physical capital situation inherited from their socialist past. Adopting policies that would dislocate such a large fraction of the workforce is likely to terminate the transition process. Political and social opposition would be widespread and fierce. In any case, in the short run, providing unemployment benefits to such a large segment of the population would be physically and financially impossible.

The magnitude of actual unemployment poses an obstacle to using industrial policy to combat poverty in transition economies. Unemployment rates of 25% or higher would require a rather broad based application of industrial policy in many countries, and would no doubt sustain socialist production and employment patterns. This would not be true for all transition economies. The actual level of unemployment has varied by country, driven in part by the proximity of the country's production and employment patterns to that which would emerge in a market economy. Hungary, for example, was noted for having a composition of employment in the broad industrial sector close to market economy conditions (Jackman 1994, Korosi 1997). Industrial policy in Hungary would consequently be less pervasive. Actual unemployment has tended to be higher in countries where macroeconomic stabilization has been successful.

Adopting industry policy to reduce the poverty consequences of unemployment may undermine the

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<sup>41</sup> Part of this could be absorbed by employment reductions. In Romania, for example, industrial employment fell overall by 14%, with low of 1.6% in mining to a high of 26% in metal forming (Earle 1997). Similar results emerge for Russia (Linz 1997b).

perverse pricing, production, investment and employment results.<sup>39</sup>

Recognizing that market institutions cannot be created overnight, Miller (1995) suggests indicative planning, a specific form of industrial policy, as a means of supplementing the market and improving the allocation of financial resources so that transition economies can be restructured. Yet, informational constraints may still be binding. Policy makers in transition economies are unlikely to know at the initiation of the transformation from plan to market the magnitude of the change in socialist production and employment patterns that will be required. Nor can it be assumed that a feedback mechanism to provide accurate information on an ongoing basis will immediately or automatically emerge.

An effort to gauge the magnitude of the requisite change in production and employment patterns involves the fraction of firms or employees engaged in the production of goods traded in non-CMEA foreign markets.<sup>40</sup> The greater the fraction involved in non-CMEA trade, the smaller the gap between socialist and capitalist production and employment patterns, and thus the less restructuring which must be accomplished. A similar measure involves the fraction of total exports going to the West (see Table 7, column 1). Frydman *et al.* (1998) document the variation across transition economies in responding to global market conditions. As seen in Table 7, not only did overall export activity decline and remain low for a prolonged period of time after the CMEA was disbanded in 1990 (column 2), the reorientation of exports away from CMEA countries was pronounced (column 3). For the purposes of this analysis, columns 4 and 5 are the most important. The greater the percentage of total exports to OECD countries, the more integrated the economy in global markets. Countries exhibiting a low export reorientation index (column 5) in the Frydman *et al.* study are likely to be most closely situated to capitalist production and employment patterns. In these economies, the transition-induced dislocations in production and employment are therefore likely to be

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<sup>39</sup> Examples of the disastrous results that emerged in response to the application of standard theory when appropriate institutions are not in place is found in Eggertsson (1994).

<sup>40</sup> Godfrey (1995) suggests that if country had more than 40% of its foreign trade with CMEA countries, then it is unlikely to find transition easy. A second measure involves the percentage of foreign investment in the transition economy -- where the percent is relatively high, the economy is likely to easily integrate into global market community.

Much of the production and distribution activities that took place in socialist economies depended upon a complex network of informal exchanges. Informal arrangements, while sustaining production and distribution in socialist economies, however, impede the transition from socialism to capitalism. Informal arrangements established under socialism to facilitate the achievement of particular goals make it difficult to determine in advance how managers and employees in transition economies will respond to the introduction of market-oriented institutions and constraints.<sup>36</sup> That is, dismantling socialist institutions created opportunities for individuals to siphon off materials and assets for personal gain rather than to re-engage these assets into productive use. Such business practice was common to socialist economies. The widespread practice of redirecting state-owned inputs and outputs for personal gain appears to have carried over to the transition economy, enabling a few to become rich, but leaving many without any options whatsoever.

By definition, informal arrangements are impossible to enforce through standard legal mechanisms. Consequently, informal arrangements are difficult to disband by these same mechanisms, even when formal institutions and laws are changing very rapidly. In part, this result obtains because those in position to change the obsolete institutions and informal arrangements gain more from preserving rather than undermining the status quo. Thus, the options for viable systemic change diminish. Socialist organizations and institutions, especially to the extent that they relied on informal arrangements, because they do not match the requirements of market economy, became dysfunctional at the onset of transition. Yet, socialist organizations and institutions continued to govern the behavior of policy makers, managers, and employees. Adopting any industrial policy to combat poverty in transition economies without taking into account the reality of persistent socialist institutions and informal arrangements is doomed to fail. Constraints and institutions associated with central planning are only gradually eliminated or dismantled, especially if they incorporate informal arrangements between individuals or organizations (Eggertsson 1994). For industrial

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<sup>36</sup> Using privatization or price liberalization as an example, it was impossible to know *a priori* whether managers or employees will expropriate any subsequent surplus that emerges, and use it to raise wages or hoard intermediate goods, and thus deprive the state of a major source of revenues.



transition economies to combat poverty.

### ***III. Obstacles to Industrial Policy***

To combat the poverty consequences of unemployment and low wages, industrial policy would necessarily focus on options that (1) reduce the incidence and duration of unemployment, (2) increase labor productivity, and (3) improve the financial situation of firms so they can pay the full amount of wages in a timely manner. Thus, industrial policy is a potentially significant mechanism to alleviate the negative impact of the transition on the poor, needy, and unemployed.

To effectively combat poverty in transition economies by promoting full employment and incomes above subsistence level, industrial policy must address both economy-wide restructuring and enterprise restructuring simultaneously. Focusing on one without the other undermines the transition process. That is, if industrial policy focuses exclusively on stimulating the fledgling private sector, the result will most likely spell disaster for the state sector and its workforce. Conversely, attempts to isolate the state sector and temporarily keep at least select firms going until new jobs are available for their workforce may contaminate the selection process in the private sector. Subsidies and protection provided to state-owned firms may also generate demand from the private sector for similar treatment. Moreover, to stimulate the production and employment reallocation required for former SOEs to survive in the post-transition environment, and to create an environment conducive to the entry of newly-created private firms, industrial policy must generate conditions where (1) profitability and efficiency guide allocation decisions, and (2) firms are predisposed to experiment with different forms of organization in order to find the one that minimizes costs. In this way, industrial policy can reduce the poverty consequences of unemployment and low wages in transition economies.

While relatively straightforward in principle, the use of industrial policy to combat poverty in transition economies is hampered by three factors: the persistence of socialist institutions and informal arrangements, underdeveloped market institutions and infrastructure, and the magnitude of the actual and potential unemployment problem.

conditions of poverty when wage payments are delayed.<sup>29</sup> The magnitude of wage arrears varies by country, appearing most severe in Russia<sup>30</sup> and the Ukraine. The frequency of delayed wages has increased rather substantially in Russia; from 43% of all employees in 1994, to 45% in 1995, reaching 62% in 1996 (Lehmann *et al.* 1997). Over one-third of the 500 firms in the 8 regions of Russia in 1996 covered by Standing's (1996) survey reported frequently experiencing delayed wage payments. The frequency was higher in firms that had been reducing their workforce size. Altogether 70-80% of the firms in Standing's survey reported direct experience with wage arrears, and reported, on average, that wage arrears accounted for 67% of their total wage bill. The poverty consequences of wage arrears are more apparent when this practice is differentially applied by region, occupation, age or gender.<sup>31</sup>

### *Poverty and Social Networks*

Considering the high inflation, declining real wages and growing unemployment in transition economies, estimates which place 20-40% of the population in poverty (Barberia *et al.* 1997) are not hard to believe. Nor are poverty incidence estimates of this magnitude out of line with reports of pensioners and

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<sup>29</sup> There are a number of reasons why firms and other organizations may not make wage payments in a timely manner. Many firms in Russia lack money for wages because a growing proportion of their business relies on barter trade. The share of barter transactions is estimated between 20% and 40% of output. Firms may be using what cash they have for speculative purposes (currency markets, GKO's, for example). Alfandari and Schaffer (1996) suggest that delayed wages is management strategy to reduce taxes or get concessions from government authorities. Three, wage arrears used by management to extract tax concessions from government. Since wage arrears do not vary systematically by ownership structure, this explanation may not be plausible. Nor does it appear that wage arrears are explained by Moscow failing to distribute money to regions to pay state workers -- the incidence of wage arrears not driven by whether worker paid from federal budget. In fact, the worst offenders, that is, the greatest incidence of wage arrears occurs in manufacturing sector, followed by mining. For further discussion, see Lehmann *et al.* (1997) and Daianu (1997).

<sup>30</sup> According to Lehmann *et al.* (1997), in Russia, wage arrears in March 1996 equaled one month's wage bill for the entire economy.

<sup>31</sup> Standing (1996) and Lehmann *et al.* (1997) find significant regional variation in the incidence of wage delays in Russia. In March 1996, while nearly two-thirds of all employees in Lehmann's sample received full wages on time, but, in Moscow the incidence of on time wages paid in full was much higher. In Chelyabinsk, only one-third of the employees were paid on time in full. Lehmann *et al.* find that more women were paid in full on time than men; men tended to receive wages on time but in reduced amounts. Only 11% of the sample received wages late and not in full; 3% received full wage but not on time. Wage arrears distributed unequally across individuals in regions and industry. In particular, some individuals worth more to firm, get paid on time; less important workers receive payments more sporadically.

**Table 6: Percent Change in Real Wages: 1989-1994**

	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>
Poland	8.3	-24.4	-0.3	-2.7	-1.5	2.0
Hungary	0.7	-1.2	-3.7	-4.0	-1.6	7.0
Czechoslovakia	0.1	-4.7	-27.0	--	--	--
Czech Republic	--	--	--	10.1	5.0	5.1
Slovakia	--	--	--	10.0	-3.0	3.0
Bulgaria	3.0	6.9	-39.4	19.2	-11.7	-19.0
Romania	2.7	5.5	-16.6	-13.2	-15.8	-10.0
Russia	8.7	-7.2	-29.8	-1.7	-3.5	-16.0
Ukraine	6.9	7.9	1.9	-18.2	-49.1	-22.0

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Source: Lavigne (1995), pp. 260-265.

than the number of people registered as unemployed.<sup>25</sup> By 1995, the gap had closed somewhat, but still reflected a significant number of people. Second, official unemployment rates underestimate the number of people without work if they fail to include older or disabled individuals seeking employment to supplement their meager pensions and stipends. In Russia, people over the legal retirement age and people with disabilities tend not to be included in the workforce figures. Thus, both are less likely to be included in unemployment calculations. Finally, official unemployment figures may underestimate the number of people without work if they fail to include the substantial number of workers who have been laid off. In Russia, there is a considerable financial incentive to induce firms to put workers on lay-off status rather than to make them formally unemployed. If Russian workers are classified as laid off, firms need not pay workers their “termination benefit” -- a payment equal to three months wages. Despite the low probability that these workers will be recalled by their company, they are included in the employment figures but not in the unemployment calculations.

The growing incidence of poverty in transition economies appears to be highly correlated with declining employment. The non-employment rate in Hungary rose from 16% to 32% of the working age population between 1990 and 1993. In Poland, many of the unemployed who could not find employment simply withdrew from the workforce (Godfrey 1995). This pattern is repeated in other transition economies as well (Boeri and Flinn 1997, Earle 1997, Jackman 1994, Standing 1996).

#### *Poverty and Low Incomes*

Poverty is not limited to those without work, however. Poverty in transition economies, as elsewhere, occurs as a consequence of wage payments that are low in comparison to the price of basic goods. Several factors contribute to low wages in transition economies. The socialist legacy of low wages, and the concentration of households with near-poverty-level incomes at the beginning of the transition process, put a large fraction of the population at a disadvantage when prices and wages were liberalized.

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<sup>25</sup> For a detailed discussion of the reasons why individuals fail to register as unemployed, see Standing (1996, chapter 2).

attractiveness of the unemployment benefits programs adopted in the different countries.<sup>21</sup> To the extent that the incidence of unemployment in transition economies is concentrated by region or industry, and the duration of unemployment concentrated by occupation, age, or gender, the localized poverty consequences of unemployment have been particularly severe. The problem is compounded by constraints on labor mobility.

Two examples illustrate the relationship between unemployment and poverty in transition economies. In the Kyrgyz Republic in 1993, at the beginning of their reform program, about 35% of the population lived in conditions of poverty. By 1996, the transition process had contributed to an unemployment rate of 20% of the economically active population; at least 50% of the population at that time was characterized as poor. In Poland, where the unemployment rate was estimated at 16% in 1996, about 14% of the population lived in poverty conditions.

Poverty and unemployment in transition economies are closely linked, despite the fact that policy makers in transition economies initially established fairly generous unemployment benefits systems, especially in terms of eligibility (Godfrey 1995, Kramer 1997).<sup>22</sup> When the financial burden of the newly-created benefits program became evident, however, the payment level and duration of benefits were scaled back,<sup>23</sup> and stricter eligibility requirements imposed. Not surprisingly, given the absence of unemployment and hence unemployment benefits offices in socialist economies, the receipt of unemployment benefits in transition economies has been hampered by an inadequate delivery structure: too few offices, for example,

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<sup>21</sup> Unemployment benefits programs are described in Boeri (1997), Godfrey (1995), Jackman (1994), Kramer (1997), and Wolff (1997), for example.

<sup>22</sup> For example, school leavers and other categories of job seekers without previous employment experience were generally entitled to benefits without an initial waiting period.

<sup>23</sup> The poverty consequences of unemployment have been most difficult for those experiencing unemployment duration in excess of the benefits period. This became particularly problematic when the maximum duration of unemployment benefits payment was halved in the Czech Republic, Slovakia and Hungary; Poland set a one year maximum payment period. Boeri (1997) finds that reducing the duration of unemployment benefits in Poland induced a larger proportion of unemployed women to leave the labor force; that is, unemployment to non-participation was higher for women in Poland than in other transition economies.

of the transition process contributed to job loss and growing unemployment. Price liberalization, privatization, the decentralization of domestic and foreign trade, the adoption of new labor codes that allowed for the release of redundant or “surplus” workers, and the reduction of subsidies to loss-making firms<sup>17</sup> put pressure on a growing number of former state-owned firms to consider ways to produce for profit, rather than “for the warehouse” (Brada *et al.* 1994, Commander *et al.* 1996, Estrin *et al.* 1995, Linz 1996). Firms faced reduced domestic demand as consumers expressed preferences for higher quality imported goods. Firms faced reduced foreign demand as a consequence of the break-up of the Council for Mutual Economic Assistance (CMEA) in 1990,<sup>18</sup> and the break-up of the Soviet Union at the end of 1991.<sup>19</sup> Consequently, firms were obliged to scale back production and release workers. Compared to output declines of 25%-60% (Jackman 1994, Linz 1997a), however, the increase in the unemployment rates across these transition economies of 5%-15% were relatively small (see Table 5).

The variation in official unemployment rates across transition economies in Central and Eastern Europe and the former Soviet Union reflect, in part, the severity and duration of the recession imposed by the reform programs adopted.<sup>20</sup> Variation in unemployment rates also tend to reflect the relative

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under 30% in 1995. The ability of released workers to avoid unemployment is a function of the match between their skills and the jobs available in their local area. Unemployment, in principle, includes individuals who are without work and actively seeking work. To the extent that inflationary economic conditions obliged students and pensioners in transition economies to seek employment, even though they were not necessarily included in workforce figures, they ought to be included as unemployed. To the extent that unemployment figures are limited to only those who were registered as unemployed, these figures understate the actual figure by a significant amount (Standing 1996).

<sup>17</sup> For discussion of the economic consequences of imposing hard budget constraints, see Anderson *et al.* (1997), Dobrinsky (1996), Earle *et al.* (1995), Kornai (1982).

<sup>18</sup> The CMEA was disbanded in 1990 when hard currency payments were demanded by member countries. For discussion of the economic consequences of disbanding the CMEA see *The Economist*, “Suvey of Business in Eastern Europe” (22 November 1997), IMF (1991), Gregory and Stuart (1997), Kajzer (1995) and Kalmbach (1994).

<sup>19</sup> For discussion of economic consequences of disbanding the Soviet Union, see Gregory and Stuart (1997), Jeffries (1996).

<sup>20</sup> For discussion of economic conditions in different transition countries in Central and Eastern Europe and the former Soviet Union, see Frydman *et al.* (1996a 1996b), Jeffries (1996), de Melo and Gelb (1996).

People not working tended to receive monthly payments equal to or less than the poverty level (Connor 1997, Garner and Terrell 1997, McAuley 1979 1981, Moskoff 1993, Yanowitch 1977). In the Soviet economy, for example, the minimum wage rose by 160% between 1956 and 1981, yet the minimum pension rose by only 67% during this period. Soviet pensioners in 1980 received on average 60 rubles per month; the “poverty line” reported in official sources was 64 rubles per month (Connor 1997). Pension payments less than half of the average wage in 1982 are reported for Bulgaria, Czechoslovakia, and Poland; in Hungary, Romania and the Soviet Union, pension payments were less than 60% of the average wage (Connor 1997). The socialist legacy of low pension payments is illustrated in Table 4.

Poverty in socialist economies also was linked to low wages. Planners set wages low to encourage labor force participation by both men and women. The result was a concentration of households at relatively low income levels. In the Soviet Union, for example, at least 15% of the population received less than the minimum wage of 70 rubles per month in 1989 (IMF et al. 1991). At that time, however, Goskomtrud, the State Committee for Labor and Employment, estimated that the minimum income needed for subsistence was 100 rubles per month (Moskoff 1993). Using this subsistence income threshold, more than 25% of the Soviet population lived in poverty conditions. Indeed, in 1990, more than 45% of the Soviet population was concentrated in the monthly per capita consumption level of 75-100 rubles per month (Ahmad 1992). Even with two adults working full time, poverty was particularly problematic in families with many young children,<sup>14</sup> and in resource-poor regions.<sup>15</sup> Thus, although not officially recognized in socialist economies, poverty was a problem nonetheless.

### *Poverty and Unemployment*

Poverty in transition economies has been caused by job loss and unemployment.<sup>16</sup> Several aspects

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<sup>14</sup> In the former Soviet Union, this was particularly true in the Central Asian republics of Uzbekistan, Kazakhstan, Kyrgyzstan, as well as in Georgia and Armenia.

<sup>15</sup> In large countries like USSR, regional differences can be quite large. In smaller countries, like Hungary, regional differences may not be so significant, although regional differences in Czechoslovakia are clearly evident.

<sup>16</sup> Job loss occurs as workers are released from their place of employment, typically a former state-owned enterprise. Released workers accounted for more than 35% of the unemployed in Russia in 1992 and 1993, and just

**Table 3b: Percentage Change in Industrial Output  
(% change from previous year)**

	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
<b>Baltic States</b>						
Estonia	0.0	-7.2	-35.2	-28.7	-2.0	1.9
Latvia	0.7	-0.7	-34.6	-32.3	-6.8	-6.3
Lithuania	-2.6	-3.5	-30.0	-34.5	-28.0	6.2
<b>Central Asian NIS</b>						
Kazakhstan	-0.8	-0.9	-13.8	-14.8	-28.1	-8.2
Kyrgyzstan	-0.6	-0.3	-26.4	-25.3	-28.0	-17.8
Tajikistan	1.2	-3.6	-24.2	-7.8	-25.4	-5.1
Turkmenistan	3.2	4.8	-14.9	4.0	24.7	-6.4
Uzbekistan	1.8	1.5	-6.7	3.6	1.6	0.1
<b>European NIS</b>						
Belarus	2.1	-1.0	-9.4	-10.0	-17.1	-11.7
Moldova	3.2	-11.1	-27.1	0.3	-27.7	-3.9
Russia	-0.1	-8.0	-18.0	-14.1	-20.9	-3.3
Ukraine	1.8	1.5	-6.7	3.6	1.6	0.1
<b>Central and East European Countries</b>						
Bulgaria	-16.8	-22.2	-15.9	-10.9	8.5	5.4
Czech Republic	-3.5	-24.4	-7.9	-5.3	2.1	9.2
Slovakia	-4.5	-17.6	-14.1	-10.6	4.6	8.2
Hungary	-9.3	-18.4	-9.7	4.0	9.5	4.6
Poland	-24.2	-11.9	3.9	6.4	11.9	9.4
Romania	-18.1	-22.8	-21.9	1.3	3.3	9.4

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Source: UN Economic Commission, *Trends in Europe and North America, 1996/97*, p. 14.



activity was driven in large part by the decline in industrial production. In nearly all transition economies, moving from plan to market caused industrial production to fall by more than half of the 1990 level (see Table 3a). Since reallocating resources to match demand conditions is a primary objective of the transition process, a portion of this production decline would be considered a beneficial consequence of the transition process, given the quality of manufactured goods and the relative emphasis on heavy industry and defense-related production. Successful progress toward introducing a market economy would not then be measured by the return to 1990 levels of industrial production, but rather in terms of reversing the decline in aggregate production trends. Reallocation and recovery in the manufacturing sector occurred most quickly in economies that pursued a relatively strong macroeconomic stabilization program (see Table 3b).

Several transition economies have moved to the second stage of the transformation process; that is, establishing a legal, financial, and administrative infrastructure to support a market economy. In the second stage, success may be measured by the ability to mobilize domestic saving and attract foreign investment (Thornton 1997). Economies in the second stage of transition are more likely to be able to adopt industrial policies appropriate to reducing poverty.

The World Bank study (de Melo *et al.* 1996) ranks countries in Central and Eastern Europe and the former Soviet Union in terms of their progress toward establishing a market economy. While the validity of the World Bank performance measure is debated,<sup>12</sup> there is no real debate regarding the relative performance of different transition economies in terms of whether they are in the first or second stage of the reform process. By all accounts, Hungary, Poland, Czech Republic, and the Baltic Republics of Latvia, Lithuania and Estonia were the first to move into the second stage of transition; Russia, and perhaps Slovakia and Kazakhstan more recently joined the group. Remaining in the initial stage, that is, lagging in the transformation process, are Belarus, Bulgaria, Moldova, Romania, Ukraine, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. In fact, reversal of reform progress appears evident in Belarus, the Ukraine,

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<sup>12</sup> Debate focuses on extent to which policy choices versus initial conditions accounts for transition performance; see, for example, Heybey and Murrell (1997). However, that debate is not relevant here. How the countries got to their current economic condition is not as important as their current condition.

**Table 1b: Domestic Price as Percent of World Price: Russia**

	<b>December 1992</b>	<b>September 1993</b>
Crude oil	28	28
Heating oil	36	50
Diesel	34	55
Petrol	40	58
Aluminum	45	65

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Source: *Russian Economic Trends* 1993, vol 2, no 3, Table 22.

restructure the economy and to restructure privatized firms in order to combat poverty by generating economic growth.

### ***I. Transition from Plan to Market***

The “standard reform package” in the transition from plan to market includes, in the first stage, the liberalization of trade and prices, privatization, and macroeconomic stabilization. Not all transition economies have been equally successful in completing the first stage. Using inflation as a measure of macroeconomic stabilization, prior to 1995, nearly all transition economies experienced inflation rates exceeding 50% per year (see Table 1a); even in economies where price controls remained on major inputs (see Table 1b). Not until 1996 did inflation stabilize at levels conducive to economic growth. Regarding privatization, if success is taken to be more than half of total economic activity occurring in the private sector, then by 1995, the Baltic Republics of Estonia, Latvia and Lithuania; Russia, the Czech Republic, Slovakia, Hungary, and Poland would be considered “winners” (EBRD 1996). Regardless of the measure of liberalization,<sup>11</sup> however, transition economies, especially those in the first stage, score poorly in comparison to market economies in the global community (Aslund 1997). When evaluated from the perspective of establishing the key ingredients of a market economy, transition economies score somewhat higher. That is, in comparison to the necessary conditions for establishing a market economy, the majority of transition economies had, by 1996, succeeded in achieving a score of more than 0.5 on the World Bank index.

The success associated with introducing the basic conditions for a market economy was not costless. The magnitude of the impact of the first stage of the transition process is most clearly evident in GDP and industrial production figures. As seen in Table 2, GDP fell substantially in all transition economies. The economic decline occurred for several years. Not until 1995 did the transition economies in the Baltic region and Central and Eastern Europe experience an increase in GDP. This decline in overall economic

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<sup>11</sup> See, for example, the liberalization measures developed by the World Bank (de Melo et al. 1996), the European Bank for Reconstruction and Development (1995), the Heritage Foundation (Johnson and Sheehy 1996), and the Fraser Institute (Gwartney *et al.* 1996).

(so-called Type A policy), rather than the alleviation of poverty (Type B policy).<sup>10</sup> However, industrial policy is not without economic consequences. Unlike industrial policy in developed market economies which targets winners and losers from the perspective of firms or industries, industrial policy in transition economies is likely to incorporate select aspects of the labor market in an explicit manner. In particular, if the objective of industrial policy is employment retention, which, in combination with subsidized prices and wages would reduce the incidence of poverty, then the production and labor reallocation required to facilitate a successful transition from plan to market is likely to be significantly delayed. Prolonging the transition process may raise the overall economic cost of transforming the economy, necessitating a trade-off between the incidence and duration of poverty. More importantly, however, if the objective of industrial policy is employment retention, policy makers must recognize early that transition is likely to generate a significant reduction in overall employment, as well as a large group of long-term unemployed (Boeri 1997, Rutkowski 1996). Failing to recognize the fundamental change in the labor markets wrought by transition could easily result in misguided policies, and perverse production and employment outcomes.

This investigation of the role of industrial policy in combating poverty in transition economies is divided into six parts. *Section one* divides the transition economies into two groups according to their performance in the transformation process. Group one countries remain in the initial stage of the transition process: privatization, liberalization, and macroeconomic stabilization have not been accomplished. Industrial policy is unlikely to be successfully adopted to combat poverty in these economies. Group two countries have moved to the second stage, one which involves consolidating the institutions and policies appropriate to a market economy, as well as establishing a competitive environment and appropriate incentives in order for economic growth to be sustained over time. Industrial policy as a mechanism to combat poverty is more likely to occur in the latter group of countries.

*Section two* describes the impact of transition on factors contributing to the growing incidence of

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<sup>10</sup> For discussion of the difference between Type A and Type B policies, see Danziger and Weinberg (1986), Subbarao et al.(1997).

been viewed as one step back from the ultimate objective of introducing a market economy.

Several transition economies appear to be moving into a second stage of the transformation from plan to market, onecoincident with economic growth and relatively stable inflation (ERBD Transition Report 1997). Having accomplished the first stage (privatization, liberalization of trade and prices, and the establishment of macroeconomic stability), the transition economies of Central and Eastern Europe (Poland, Hungary, Czech Republic, Slovakia) and several of those formerly part of the Soviet Union (Estonia, Latvia, Lithuania, and Russia, for example) appear to be focused on building and consolidating appropriate institutions, developing sources of investment, and establishing and maintaining a viable social safety net. In these economies, it is likely that industrial policy will begin to play a more prominent role in the transition process.

### *Industrial Policy and Poverty*

Industrial policy in transition economies may be used to combat poverty by facilitating the restructuring process, both at the enterprise and economy-wide level. At the enterprise-level, industrial policy must incorporate the reality that firms existing in the former socialist economy fall into one of three categories: (1) viable, that is, currently making profits and/or adapting to changing conditions; (2) non-viable but need to be supported for employment maintenance, that is, the local impact in terms of unemployment of closing the firm is greater than potential employment options or income support funds in the near term; and (3) absolutely non-viable. In this regard, industrial policy might be viewed as picking losers among losers (Daianu 1997), given the significant proportion of former state-owned manufacturing firms producing negative value-added.<sup>8</sup>

At the economy-wide level, industrial policy could be used to create conditions for the entry of small and medium-sized enterprises (SMEs) in non-traditional spheres: services, for example. To be

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<sup>8</sup> This does not, however, trivialize the potential role of industrial policy in alleviating poverty. Instead, it points to the magnitude of the problem that policy makers in transition economies face. For discussion of state-owned firms producing output of lesser value than that of the inputs used, see Daianu (1997), Eggertsson (1994), Healy (1994), Linz (1997a), Richet (1993), Thornton and Mikheeva (1996).

way as to develop new industries or to develop new products/processes in existing firms. Industrial policy is warranted whenever first-moving advantages need to be broken down and initial capital requirements are substantial, or where significant potential cost reductions arise from learning effects or scale economies. Industrial policy also is warranted when there is a divergence between private and social rates of return (private sector discount rates are “too high” because of risk aversion). Finally, industrial policy is warranted when information gaps about the potential of new technologies or methods have a public goods characteristic. The benefits of industrial policy are protected by patents, as well as the time and resource cost associated with imitation. Examples of industrial policy frequently point to the experience of Germany and Japan in developing or modernizing a particular industry; examples tend also to emphasize the long-term nature of the partnership between industry and government.

*“Missing Market” Approach*

When economies experience non-steady-state growth, investment choices lock in production techniques as long as costs are falling, even if the resulting mix of technologies is no longer efficient. Industrial policy is viewed as a means of breaking out of the path dependency, generated by current or past investment choices, by allocating resources to future activities. In this regard, industrial policy takes the place of futures or insurance markets in neoclassical models, and takes the place of the entrepreneur in Austrian-inspired models. Like the “industrial strategy” framework, industrial policy is viewed as a pro-active mechanism for restructuring industry or the economy.

There are clearly overlapping elements in these different approaches to the appropriate use of industrial policy in market economies. To the extent that industrial policy targets restructuring firms, industries, or the overall economy to promote economic growth, it has the potential to play an important role in transition economies in alleviating the poverty consequences of low wages and unemployment.

policy tends to consolidate efforts of leaders in the government, financial, and manufacturing sectors, and tends to be sustained over a prolonged period of time (Cowling 1994, Cowling and Sugden 1992). In developing economies, industrial policy has focused on establishing a competitive position in global markets as a mechanism for financing the domestic development process (Clark 1997, Dahlman 1994, Rosen 1996, Smith 1991).

[Box 1.1 Different Approaches to Industrial Policy]

The possible use of industrial policy to facilitate the transformation from socialism to capitalism has been described in general terms in the growing literature on transition economies.<sup>3</sup> In their move from plan to market, all transition economies in Central and Eastern Europe, as well as in the former Soviet Union, experienced rather severe production declines. Output declines were driven in large part by the economy's initial conditions,<sup>4</sup> as well as by the pace and scope of the reform programs adopted in each country (Basu *et al.* 1997, de Melo and Gelb 1996, Jeffries 1996). In the initial stage of the reform process, a time when neither the outcome nor the strategy for achieving the outcome was fully known,<sup>5</sup> industrial policy was considered as a possible means to close the gap between existing (socialist) economic conditions and that sustainable in a world where prices reflect relative scarcities.

In particular, industrial policy in transition economies was viewed as a mechanism for assisting the

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<sup>3</sup> See, for example, Audretsch (1993), Benini (1994), Cook and Nixon (1995), Fath (1994), Hare (1993, 1994), Kozul-Wright (1996), Landsmann (1993), Petrin (1996), Torok (1994), van Brabant (1993, 1994), Zemen (1994), and Shurchkov (1995).

<sup>4</sup> Initial conditions are defined here to mean the production and employment patterns inherited from the socialist economy, as well as the economy's ability to adapt to change, particularly as it related to opening to global competition. For a ranking of the transition economies in terms of their initial divergence in pricing, production, and employment outcomes in comparison with a market economy, see *The Economist* "Survey of Business in Eastern Europe" (22 November 1997).

<sup>5</sup> The transition process has been likened by Vaclav Klaus, Finance Minister of Czechoslovakia, to a game of chess, where at the start of the transformation (chess match) no one knows in advance all of the contingencies or situations (moves) that may arise, but a series of possible opening strategies is known. This analogy was made to underscore his emphasis on ensuring that the reforms would be implemented in a proper sequence, that is, price liberalization, privatization and macroeconomic stabilization in the early stages of the game. See Eggertsson (1994, p. 43) for further discussion. To the extent that the final outcome to be achieved by the transition, that is, the relative mix of plan and market in the post-transition economy, is not well-specified at the beginning of the transformation process, it may be that policy makers are playing without knowing all the parameters (rules, moves).

## Industrial Policy and Poverty in Transition Economies: Two Steps Forward or One Step Back?

### *Executive Summary*

This investigation of the role of industrial policy in combating poverty in transition economies is divided into six parts. *Section one* divides the transition economies into two groups according to their performance in the transformation process. Group one countries remain in the initial stage of the transition process: privatization, liberalization, and macroeconomic stabilization have not been accomplished. Industrial policy is unlikely to be successfully adopted to combat poverty in these economies. Group two countries have moved to the second stage, one which involves consolidating the institutions and policies appropriate to a market economy, as well as establishing a competitive environment and appropriate incentives in order for economic growth to be sustained over time. Industrial policy as a mechanism to combat poverty is more likely to occur in the latter group of countries.

*Section two* describes the impact of transition on factors contributing to the growing incidence of poverty in the economies of Central and Eastern Europe, and the former Soviet Union. This section examines the problem that industrial policy must solve in order to reduce the incidence and duration of poverty; that is, how to close the gap between socialist production and employment patterns and market production and employment patterns. While the magnitude of the gap varies by country, in all transition economies, closing the gap has been associated with dramatic reductions in output and employment, especially in manufacturing. Moving from plan to market also has been associated initially with substantial inflation and a deterioration of the living standards of a significant portion of the population. In particular, section two focuses on the poverty consequences of unemployment and low wages in transition economies.

*Section three* highlights the obstacles to using conventional industrial policy in transition economies. Socialist institutions and informal arrangements persist long after the reform begins. In socialist economies, the requisite market institutions and infrastructure were underdeveloped or non-existent. Consequently, at the beginning of the transformation process, it was impossible to introduce industrial policies that have been successfully used in such developed market economies as Canada, Germany, Italy, Japan and Sweden. Equally importantly, the magnitude of the actual and potential unemployment problem which policy makers in transition economies face as they shepherd their countries toward capitalism imposes significant constraints on numerous options which might facilitate the speed of the transformation process.

*Section four* investigates the role of industrial policy as a mechanism for economy-wide restructuring; that is, expanding the share of private sector activities, reducing the relative share of industry in overall economic activities, and within industry, reducing the relative share of producer goods in comparison to consumer goods, for example. In particular, a summary of projects adopted to restructure the economy is provided.

*Section five* addresses the ways in which industrial policy can be used to assist with enterprise restructuring, with a focus on the consequences of proposed policies for reducing the incidence and duration of poverty.

*Section six* summarizes the costs and benefits of using industrial policy in transition economies to restructure the economy and to restructure privatized firms in order to combat poverty by generating economic growth.