
Labor Markets in the Transition Economies: An Overview

El-hadj Bah¹, Josef C. Brada²

Abstract

This paper reviews labor market developments in the countries of Eastern Europe and the former Soviet Union since the beginning of transition. The paper examines the relationship between aggregate employment and macroeconomic developments in these countries, emphasizing the changing interaction between aggregate output and employment, the role of wages and of labor market flexibility in determining the ability of these economies to provide suitable employment for their citizens. Attention is also given to the role of starting conditions and how the excess employment of the Communist period was either liquidated or accommodated. The second part of the paper deals with microeconomic issues pertaining to labor market performance in the region. The role of the nature and extent of privatization on employment outcomes is examined as is the role of sectoral restructuring. The role of entrepreneurship and the creation of new SMEs, capital formation and the emergence of new labor market institutions are also described.

JEL: E24, J21, J38, P23, P27

Keywords: transition economies, labor markets, employment, job creation, privatization

1. Introduction

One of the more controversial aspects of the process of transition from central planning to a market economy in Eastern Europe and the former Soviet Union has been the performance of the labor market. High levels of unemployment at the outset of the transition were variously seen as having the potential to derail or delay meaningful reforms, as evidence that pursuing so-called “big bang” transition strategies were misguided, and as a demonstration that the transition was a complex process, one that brought both the fruits of capitalism as well as its problems, not the least of which were unemployment and income inequality.³

While the subsequent recovery of output in these economies in the late 1990s was taken as evidence of progress with transition, the persistently high levels of unemployment gave rise to the notion of a “jobless recovery” where output rose without a concomitant increase in employment, leading to greater income inequality and

¹ African Development Bank, e.bah@afdb.org

² Arizona State University, josef.brada@asu.edu

³ See Svejnar (1999) and Boeri (2000) for surveys of labor market developments in the first decade or so of transition.

to labor market pathologies such as high levels of youth unemployment and rising long-term unemployment. From 2000 to 2008, the transition economies experienced something of a boom, fueled in part by the global bubble economy that increased inflows of FDI, thereby increasing both the rate of capital formation and the growth of TFP through technology spillovers (Brada and Slaveski, 2012). Financial capital inflows increased as well, stimulating domestic demand and, at times, setting off housing and asset bubbles. The expansion of the global economy also increased the prices of fuels and minerals exported by some transition economies as well as the demand for steel, automobiles, etc., which were important in the export mix of other transition economies. On the eve of the crisis, unemployment rates had fallen significantly, suggesting that the effects of whatever labor market distortions, such as labor hoarding, soft budget constraints for employers and restrictive labor regulations, that had existed earlier in the transition period had ceased to be barriers to effective labor market functioning, and, although the crisis led to sharp increases in unemployment, the effect appears to have been short lived.

This paper highlights the main issues surrounding the performance of transition economy labor markets, reviews these within the framework of a consistent set of macroeconomic data, identifies areas of agreement and those where further research is needed, and draws policy conclusions where possible. We begin by examining the macroeconomic trends evident during the transition, discuss some of the issues pertaining to the data on unemployment, and examine the literature on the functioning of the labor market from a macroeconomic standpoint. In the second half of this paper we examine microeconomic and structural factors that shape employment and labor market performance.

2. Macroeconomic Trends and Their Effect on Labor Markets

2.1 Reforms and Growth

The period since 1989 has seen major changes in output and employment in the countries of Eastern Europe and the former Soviet Union (FSU). Initially, all these countries saw a large decline in GDP (Table 1). The true extent of the decline in economic activity may have been less than official statistics suggest, and the true magnitude of the decline is the subject of considerable controversy (Campos and Coricelli, 2002), due to possible errors in the measurement of output (Johnson *et al.*, 1997); to problems in the proper measurement of prices in a period of high inflation, large relative price and quality changes, and changes in the structure of economic activity (Filer and Hanousek, 2000); and to the emergence of a large, partly private, shadow economy of unregistered producers and under-reported output (Dobozi and Pohl, 1995). Nevertheless, for the purposes of this paper, we assume that the large inter-country differences in performance, as well as of the general path of output and

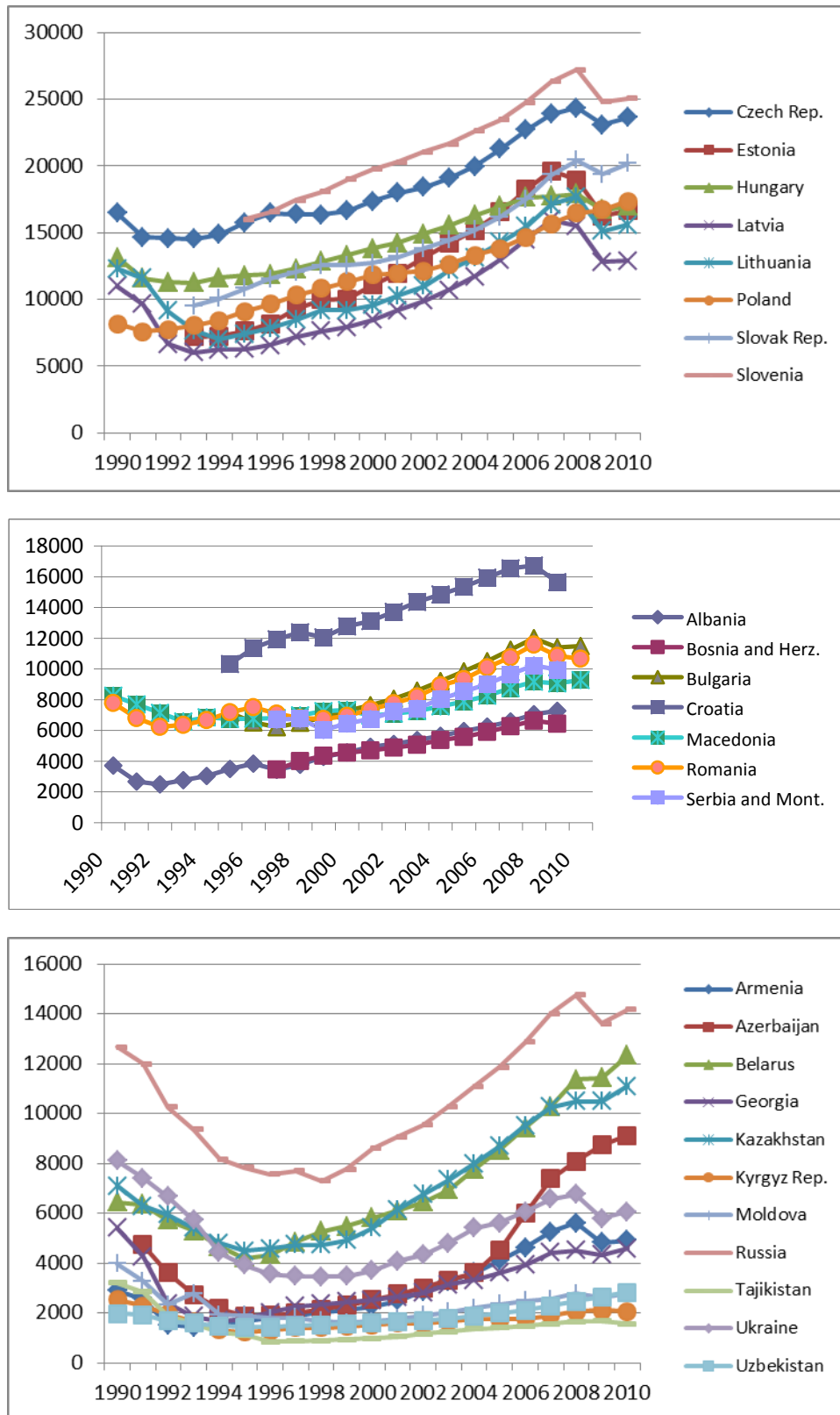
inflation, can be viewed as reasonable approximations of events in the transition economies.

Figure 1, which reports the real *per capita* GDP of most of the countries in the region, provides a clear view of aggregate output's path through the "transition recession followed by recovery" that characterized virtually all countries in the region. In the countries that joined the EU in 2004, called the Central European group in this paper, *per capita* GDP has exceeded 1989 levels since the mid-1990s. It is important to bear in mind that, leaving distributional issues aside, this performance implies a significant improvement in consumption because the share of government and domestically-financed investment in GDP declined relative to the Communist period. In the Balkan countries, with the exception of Croatia, GDP growth was less robust. Here too, however, most countries have attained 1989 *per capita* levels of GDP, even if they have not exceeded them by the margin seen in the Central European countries. The countries of the former Soviet Union, excluding the Baltic States, the CIS countries in this study, only reached the 1989 level of GDP in the mid-2000s. This is true even of CIS countries exhibiting robust growth from the late 1990s onward. More troubling is that there is a group of low-income CIS countries that have experienced serious declines in *per capita* GDP for a sustained period of time. Such performance, however it translates into labor market performance, is a sign of a serious decline in welfare. Indeed, for all of the countries under consideration, taking the entire trajectory of the transition experience into account suggests that no country's population has been spared some economic hardship as a result of the transition. Implementing successful measures to improve employment opportunities and to provide for a better functioning of the labor market should have been and should continue to be an important policy concern in all transition economies.

There is considerable controversy about the causes of the decline in output at the onset of transition. Some blamed a reduction in aggregate demand due to a sharp decline in central government spending on investment and defense, the collapse of CMEA trade and falling real incomes and wealth as the result of inflation brought about by price liberalization.⁴ Others blamed supply-side dislocations, such as disruptions of production brought about by the end of central planning (Blanchard, 1997; Blanchard and Kremer, 1997), large relative price changes, and the absence of institutions needed to make markets function effectively (Murrell and Wang, 1993).

⁴ See, for example, Lipton and Sachs (1990), Brada and King (1992).

Figure 1. Per Capita GDP in US\$ at prices and PPPs of 2005



Source : <http://w3.unece.org/pxweb/?lang=1>

Table 1. Real GDP Growth (%)

GDP growth (annual %)																					
CEE																					
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Czech Rep.		-11.61	-0.52	0.06	2.22	5.95	4.03	-0.73	-0.76	1.34	3.65	2.46	1.90	3.60	4.48	6.32	6.81	6.13	2.46	-4.15	2.32
Estonia	-7.06	-8.00	-21.17	-5.74	-1.64	4.98	4.98	10.80	5.36	-0.14	9.56	8.51	7.94	7.56	7.22	9.43	10.56	6.92	-5.06	-13.90	1.78
Hungary	-3.50	-11.89	-3.06	-0.58	2.95	1.49	1.02	4.31	5.16	4.23	6.22	4.10	4.40	4.30	4.70	3.90	0.76	0.77	0.83	-6.69	1.17
Latvia	-7.94	-12.60	-32.12	-4.98	2.19	-0.94	3.79	8.28	4.72	4.70	6.91	8.04	6.47	7.20	8.68	10.60	12.23	9.98	-4.24	-17.95	-0.34
Lithuania		-5.68	-21.26	-16.23	-9.77	3.29	5.18	7.47	7.63	-1.07	3.25	6.74	6.86	10.25	7.35	7.80	7.84	9.84	2.93	-14.74	1.33
Poland		-7.00	2.60	3.80	5.20	7.00	6.24	7.09	4.98	4.52	4.25	1.21	1.44	3.87	5.34	3.62	6.23	6.79	5.13	1.65	3.82
Slovak Rep.	-2.67	-14.57	-6.72	-3.70	6.21	5.84	8.03	5.73	4.36	0.03	1.37	3.48	4.59	4.78	5.03	6.67	8.50	10.58	6.17	-6.20	0.50
Slovenia		-8.90	-5.46	2.84	5.33	3.64	3.57	4.91	3.57	5.37	4.39	2.85	3.97	2.84	4.29	4.49	5.81	6.80	3.49	-7.80	1.18
Balkans																					
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Albania	-9.58	-29.59	-7.20	9.60	8.30	13.30	9.10	-10.20	12.70	10.10	7.30	7.00	2.90	5.70	5.90	5.50	5.00	5.90	7.70	3.30	3.50
Bosnia and Herz.						20.80	88.96	34.39	15.60	9.60	5.50	4.40	5.30	4.00	6.10	5.00	6.20	6.84	5.42	-3.10	0.80
Bulgaria	-9.12	-8.45	-7.27	-1.48	1.82	2.86	-9.03	-1.65	4.86	1.96	5.73	4.15	4.65	5.51	6.75	6.36	6.51	6.45	6.22	-5.52	0.20
Croatia		-21.09	-11.71	-8.03	5.87	6.75	5.92	6.54	1.98	-1.04	3.75	3.66	4.88	5.37	4.13	4.28	4.94	5.06	2.17	-5.99	-1.19
Macedonia		-6.17	-6.56	-7.47	-1.76	-1.11	1.18	1.44	3.38	4.34	4.55	-4.53	0.85	2.82	4.09	4.10	3.95	5.90	5.00	-0.90	0.70
Romania	-5.60	-12.90	-8.84	1.51	3.97	7.16	4.01	-6.10	-4.79	-1.20	2.10	5.70	5.10	5.20	8.40	4.17	7.90	6.00	9.43	-8.50	0.95
Serbia and Mont.	-8.00	-9.78	-27.16	-30.51	2.50	6.10	7.80	10.10	0.70	-11.20	5.30	5.60	3.90	2.40	8.30	5.60	5.23	6.90	5.52	-3.12	1.76
FSU																					
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Armenia		-11.70	-41.80	-8.80	5.40	6.90	5.87	3.32	7.30	3.30	5.90	9.60	13.19	14.00	10.50	13.90	13.20	13.75	6.90	-14.27	0.95
Azerbaijan	-11.70	-0.70	-22.60	-23.10	-19.70	-11.80	1.30	5.80	10.00	7.40	11.10	9.90	10.60	11.20	10.20	26.40	34.50	25.05	10.80	9.30	5.00
Belarus		-1.20	-9.60	-7.60	-11.70	-10.40	2.80	11.40	8.40	3.40	5.80	4.73	5.05	7.04	11.45	7.82	10.50	9.85	11.30	0.20	7.60
Georgia	-14.79	-21.10	-44.90	-29.30	-10.40	2.60	11.20	10.52	3.10	2.87	1.84	4.81	5.47	11.06	5.86	9.60	9.38	12.34	2.31	-3.80	6.38
Kazakhstan		-11.00	-5.30	-9.20	-12.60	-8.20	0.50	1.70	-1.90	2.70	9.80	13.50	9.80	9.30	9.60	9.70	10.70	8.90	3.30	1.20	7.00
Kyrgyz Rep.	5.70	-7.85	-13.89	-15.46	-20.09	-5.42	7.08	9.92	2.12	3.66	5.44	5.33	-0.02	7.01	7.03	-0.18	3.10	8.54	8.40	2.89	-1.36
Moldova	-2.40	-16.00	-29.10	-1.20	-30.90	-1.40	-5.20	1.60	-6.50	-3.40	2.10	6.10	7.80	6.60	7.41	7.50	4.78	3.07	7.76	-5.99	6.94
Russia	-3.00	-5.05	-14.53	-8.67	-12.57	-4.14	-3.60	1.40	-5.30	6.40	10.00	5.09	4.74	7.30	7.18	6.38	8.15	8.54	5.25	-7.81	4.03
Tajikistan	-0.60	-7.10	-29.00	-16.40	-21.30	-12.40	-16.70	1.70	5.30	3.70	8.30	10.20	9.10	10.20	10.60	10.49	6.70	7.00	7.80	7.90	3.80
Ukraine	-6.35	-8.41	-9.70	-14.23	-22.93	-12.20	-10.00	-3.00	-1.90	-0.20	5.90	9.20	5.20	9.40	12.10	2.70	7.30	7.90	2.10	-14.80	4.20
Uzbekistan	1.60	-0.49	-11.20	-2.30	-5.20	-0.90	1.70	5.20	4.30	4.30	3.80	4.20	4.00	4.20	7.70	7.00	7.30	9.50	9.00	8.10	8.50

Source: compiled from <http://ddp.prowebis.com/> and <http://w3.unec.org/psweb/?lang=1>

Some countries sought to shelter firms and workers from the effects of large demand shocks and the need to undertake rapid restructuring and privatization by providing government subsidies and other supports to firms. In the long run, these economies found themselves in a low-growth, high-unemployment equilibrium in which neither the emergence of markets and market-supporting institutions nor effective response by firms to changes in relative prices were much in evidence. Nevertheless, it is also true that the countries with robust recoveries were characterized by strong growth of consumer and investment outlays, as well as by robust export growth. This suggests that a demand stimulus was a necessary but not sufficient condition for the resumption of economic growth. The fact that the faster-growing countries were also characterized by better-functioning markets, higher levels of private ownership of businesses, and the development of market-supporting institutions suggests that addressing supply-side factors through economic reform was also necessary for robust economic growth.

A number of studies (*e.g.*, Aslund *et al.* 1996, deMelo and Gelb, 1996, 1997 and Fischer *et al.*, 1996) concluded that more reform led to higher GDP growth. Other research suggested that differences in the economic performance of the transition countries could be explained by variables other than the intensity of reforms such as location or starting conditions (Krueger and Ciolko, 1998; Stuart and Panayotopoulos, 1999). A meta-analysis of these and similar studies by Babecký and Campos (2011) concluded that the short-term effects of reform tend to be negative, but the long-term effects are positive for economic growth.

One problem in drawing policy conclusions for the labor market from these results is that the findings described above apply to the early transition period. Polanec (2004) found that the manner and extent to which transition countries implemented liberalization, privatization, and reforms explained many aspects of their economic performance only in the early years of the transition. As he extended his analysis to the late 1990s and beyond, the influence of the transition measures on performance ceased to be important and the “normal” economic and policy variables used to explain performance in non-transition economies gained in explanatory power for transition economies. Indeed, a key research question to resolve for the analysis of the labor market performance in the region is the extent to which these economies and their economic processes should be viewed in the context of their starting conditions and transition strategies and the extent to which they should be viewed as ‘normal’ market economies. Both the importance of the answer to this question as well as the difficulties in answering it will come up in a number of places in this paper.

2.2 Economic Growth and Employment

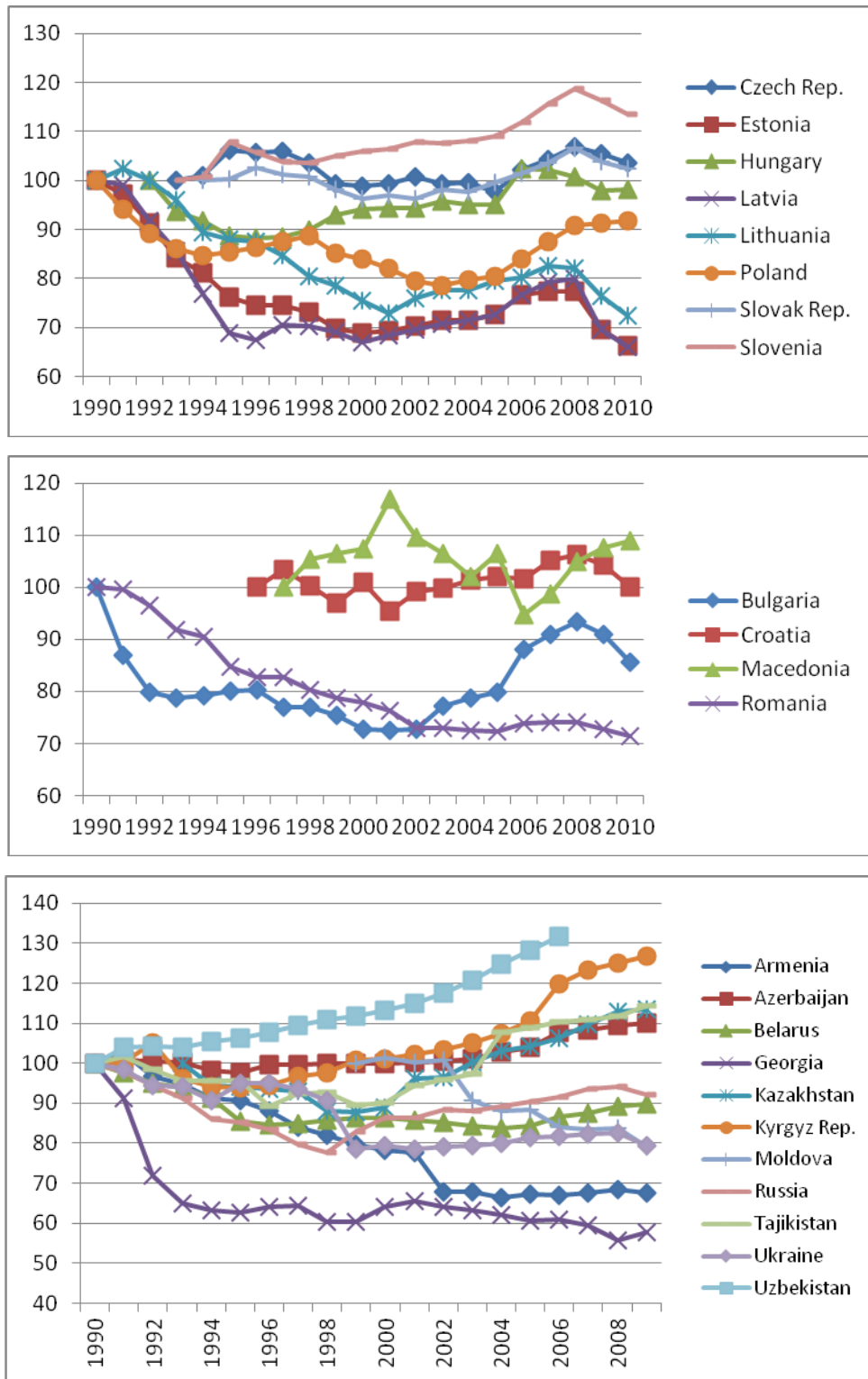
Comparing Table 1 and Figure 2, which presents employment, shows that the time path of employment in the transition economies was most closely related to the rate of growth of aggregate output at the beginning of the transition, when both

declined, and during the recent global financial crisis. Moreover, even though in all three groups of countries there were some countries whose employment rose steadily, many countries saw a decline in the number of people employed relative to the starting level, and the response of employment to the resumption of output growth was muted at best through the 1990s. The decade beginning in 2000 showed a greater variety in employment response, but, as general trend, employment growth tended to be positive and unemployment rates fell, a pattern reversed by the onset of the global financial crisis.

Normally, economic growth should increase the demand for labor, but the extent to which it will do so depends on factors such as the wage rate; the extent and form of privatization; the demographic composition of the work force; structural changes in the economy that accompany growth; the existence of labor market frictions and regulations; and social and cultural characteristics of the country. To explore the relationship between output and employment, we calculated the yearly elasticity of employment with respect to GDP ($\% \Delta \text{employment} / \% \Delta \text{GDP}$) on an annual basis.⁵

⁵ These are not true elasticities because other determinants of employment, most notably wages, are not held constant. We discuss the role of wage flexibility below. Moreover, there may be lags between changes in output and their effect on employment. We experimented with these, but they did not materially affect our findings.

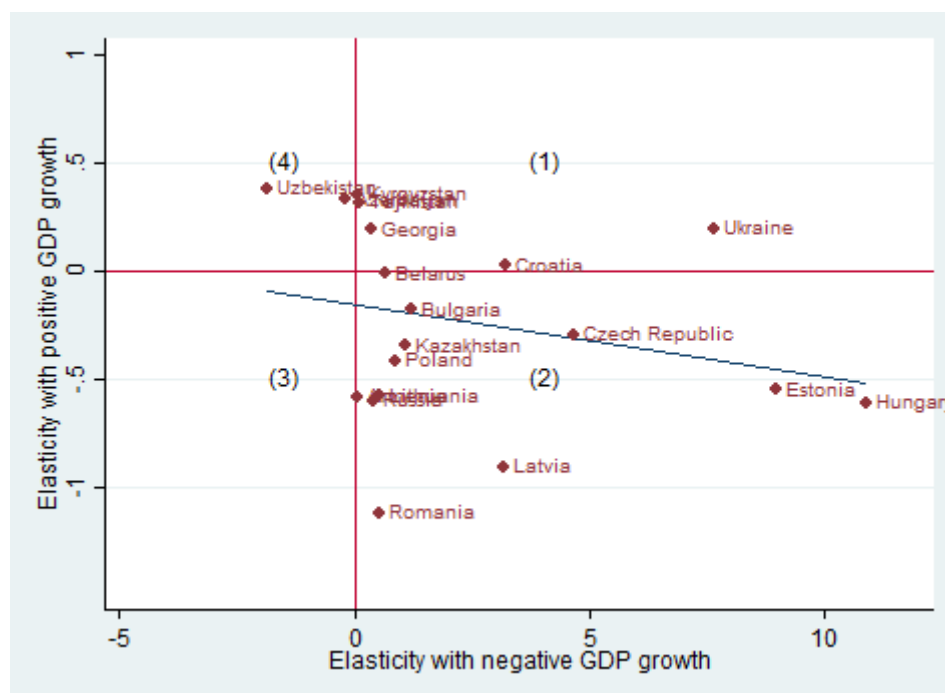
Figure 2. Employment (1990=100)



Source : <http://w3.unece.org/pxweb/?lang=1>

In Figure 3 we plot each country's average annual elasticity calculated separately for years when GDP was falling and for years when it was rising over the period 1991-2000, which we call the transition period. In Figure 4 we do the same for the years 2001-2010. We calculate elasticities with rising and falling GDP separately because different firm behaviors are involved in shedding labor as output falls and rehiring workers as output rises. In an economy characterized by some measure of labor market equilibrium, we would expect these elasticities to be positive, so that employment would rise with increasing GDP and fall with declining GDP. The magnitude of the elasticity would be a rough measure of the flexibility of the labor market with respect to shocks to GDP. For such an economy, the measured elasticities would be in Quadrant 1, to the upper right of the 0-0 axes in Figures 3 and 4.

Figure 3. Total Employment–GDP Elasticity for Positive and Negative GDP Growth (1991-2000)

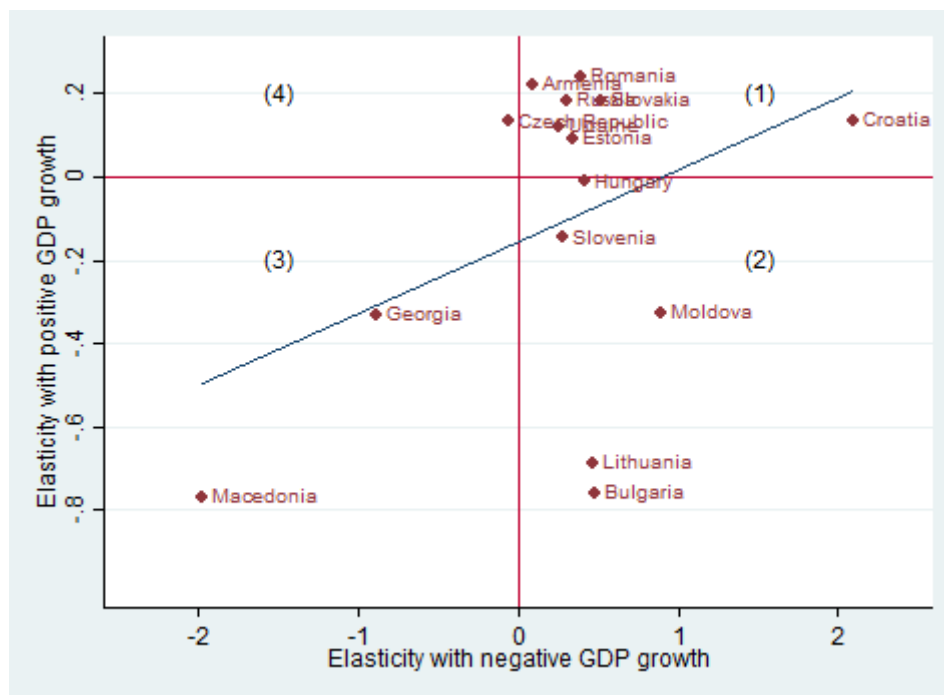


Source: Authors' calculations

Figure 3 shows that, for the period 1991-2000, many countries in our sample were in Quadrant (2), meaning that employment decreased when output fell and it also decreased when output increased. In these countries there was general labor shedding as firms sought to eliminate redundant workers or as individuals exited the labor force, and this process continued whether output was falling or increasing, though, as the scatterplot suggests, at different rates so that job losses were greater for a 1% decline in output than for a 1% increase in output. Figure 4, on the other hand, shows many more

countries in Quadrant (1), reflecting a positive elasticity of employment with respect to GDP whether it increases or decreases. This suggests that, post-2000, the process of labor shedding in many economies had largely ended and employment increased when GDP increased and fell when it declined. The remaining countries that are not in Quadrant 1 exhibit much smaller (in absolute value) elasticities of employment with respect to negative changes in GDP relative to the period covered by Figure 3, suggesting that they, too, are moving past the stage of labor shedding toward new and more normal labor market dynamics. These results are broadly consistent with those of Izumov and Vahaly (2002), Gabrisch, and Buscher (2006) and Cevik et al., (2013) who consider the employment-output relationship in transition economies from the standpoint of Okun's (1983) Law.

Figure 4. Total Employment–GDP Elasticity for Positive and Negative GDP Growth (2001-2012)



Source: Authors' calculations

It must be noted that the large changes in GDP that led to these large shifts in employment were accompanied by large wage movements, which means that the usual approaches to measuring the effect of output on employment, such as the application of Okun's-Law-type specifications, which assume relatively stable wage levels, need to be supplemented by models that take both wages and output into account as drivers of

observed employment changes. Research on such structural models of the transition economies' labor markets are as yet lacking.

A further theme that deserves more attention from researchers is the interplay of wages, employment and productivity in the course of the transition. As Marelli and Signorelli (2010) stress, the dynamics of these three measures of labor market behavior in the transition economies should be considered more from the perspective of the theory of economic growth than from that of the business cycle. Growth theory stresses the central role of the capital-labor ratio, K/L , in determining output per worker, Y/L , which, of course, then drives the wage rate, w . During the Communist era, despite high levels of investment, Y/L was low by European standards not only because K/L was lower in the East European countries, but also because Communist policies of having all able-bodied people work led to overstaffing, which lowered K/L and w even more. Both labor productivity and wages were, of course, also depressed by the effects of the Communist economic system on incentives and total factor productivity.

The key economic objective of the shift from socialism to capitalism in Eastern Europe was to raise productivity levels and incomes to West European standards, and this could be accomplished in two ways: by raising K or by reducing L . In the short run, increasing K was not a feasible alternative. The ability to divert a larger share of GDP to capital formation was politically unacceptable and economically infeasible. Moreover, the transition actually decreased K because of the shift in the structure of output brought about by a market economy and increased and redirected international trade (Campos and Coricelli, 2002) rendered much of the existing capital stock useless.⁶ Thus any major gains in Y/L would have to come from decreases in L , decreases that, in the new market environment, were in part dictated by the overfull employment policies of the pre-transition period.

Marelli and Signorelli (2010) view the dynamics of productivity and employment in terms of several "models", and, based on their finding that:

In the 1990s, most of these [transition] countries shifted to a "stagnant" model, because of heavy reductions in employment, following the restructuring of their economies, not yet accompanied by significant improvements in productivity. Only in the new century did productivity levels begun to converge towards the European average – in some countries accompanied by a new rise in the employment rate.' Marelli and Signorelli (2010: 745)

We would take issue with Marelli and Signorelli's assertion that there were no "significant" gains in productivity during the first decade of transition, based both on

⁶ Deliktas and Balcilar (2005) estimate that up to 50 percent of the communist-era capital stock was "destroyed" in this way during the early transition. Also see Kushnirsky (2001), Darvas and Simon (2000) and Izumov and Vahaly (2006, 2008) for other, but similar estimates. Of course, such adjustments to the capital stock also imply much bigger gains in productivity in the early transition.

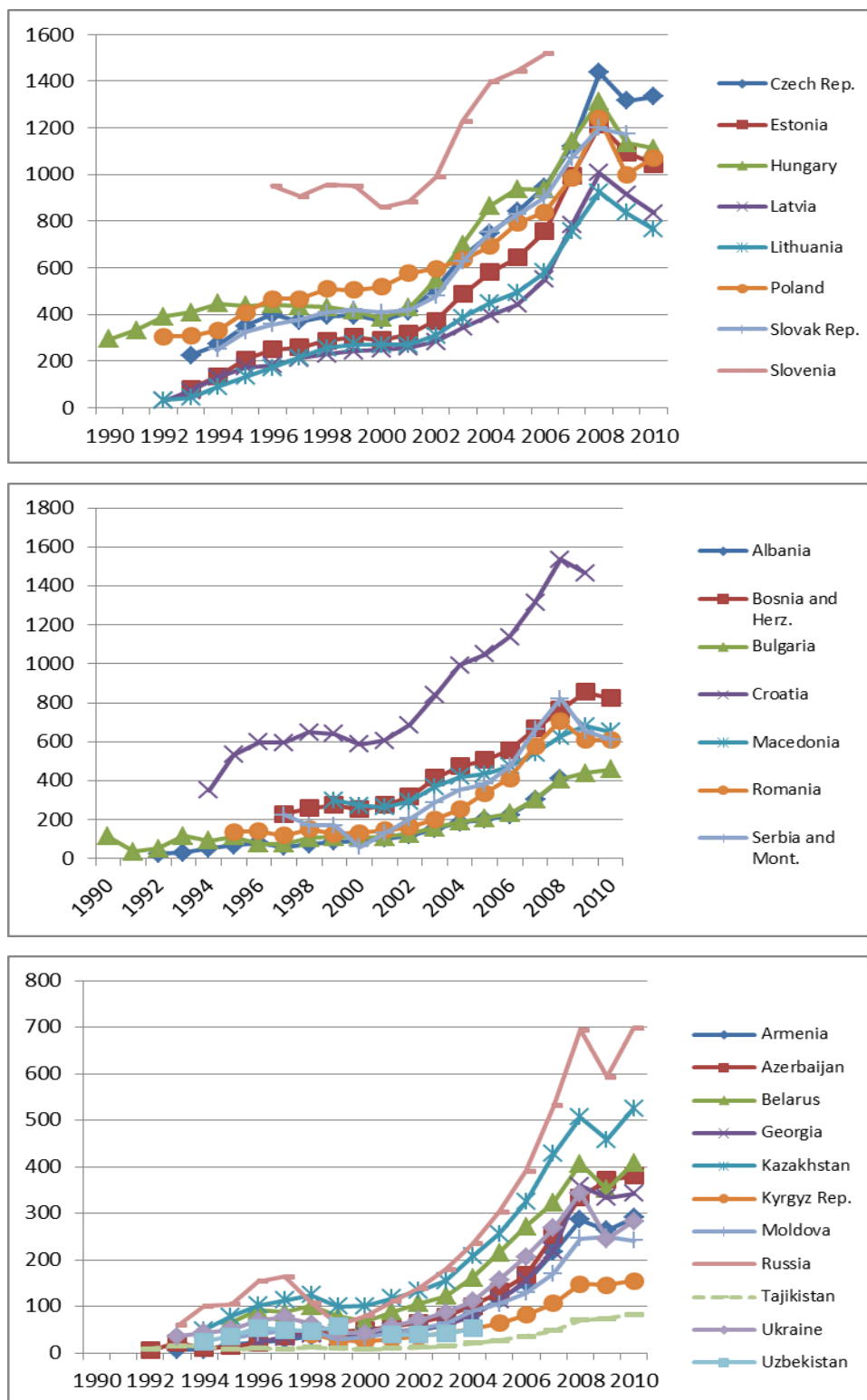
the discussion of the need to adjust measured productivity for declines in the capital stock as per the discussion and sources in footnote 4 as well as on Marelli and Signorelli's own Figure 1, which shows quite good gains in productivity for the transition economies in 1990-2000. Nevertheless, Marelli and Signorelli point to a much more important question for our understanding of the decline in employment in Eastern Europe. This question is: what were the forces that determined the extent of the decline in employment and the consequent increase in productivity in the transition economies. While Marelli and Signorelli (2010) speak of "models" that provide a taxonomy of different combinations of productivity and employment changes, it is unclear just what causes individual countries to follow one model or another at a particular time in history. Is it politics, economic policy, or the workings of the market driven by technology, demographic and other exogenous shocks such as the transition? Thus the research question raised by Marelli and Signorelli (2010) is to understand how East Europe came to undertake such a unique exercise in raising productivity through a massive and relatively long-term decline in employment and what characteristics of the market mechanism established by the transition were responsible for the magnitude of the employment decline and subsequent productivity gain.⁷

2.3 Wages and Employment

As Figure 5 shows, wages have been quite flexible in transition economies. They increased in the CEE and Balkan countries from the mid-1990s on and in the CIS countries from about 2000 onward. Also evident is a sharp drop in wages resulting from the global financial crisis, especially in countries that had fixed exchange rates or that had adopted the Euro. The increase in wages in the 1990s that accompanied the resumption of economic growth may have played a role in dampening the employment response to increases in output, but how much depends critically on the wage elasticity of employment. Because output, wages and employment are interrelated, estimating the effects of any one on the others is fraught with econometric difficulties but it is critical for a better understanding of labor market developments in transition.

⁷ Rozmahel *et al.* (2013) offer some interesting insights regarding some aspects of this question.

Figure 5. Gross Average Monthly Wage (US\$ at Current Exchange Rates)



Source : <http://w3.unece.org/pxweb/?lang=1>

Using 1999-2004 data for sectors of industry in the transition countries that joined the EU in 2004 plus Bulgaria and Romania, Onaran (2006) estimated static and dynamic labor demand functions with output and wages among the determinants of manufacturing employment disaggregated at the one or two digit levels. Output growth had a positive effect on employment even though the elasticity was less than one in all cases and generally lower than estimates for developed market economies. The elasticity of employment with respect to wages was not statistically significant in most of her regressions. Where it was statistically significant, the elasticity was roughly between -0.5 and -1.0 for medium-skilled and unskilled labor and about double that for skilled labor. There were also cases of significant and positive wage elasticities. The short time period covered and the use of lagged wages as instruments to deal with the endogeneity of the wage rate may help to explain the lack of more robust results.

Nevertheless, given the rapid growth of real wages shown in Figure 5, if we hypothesize a wage elasticity of -0.5 for these transition economies, wage growth between 1993 and 1999, for example, would have resulted in aggregate employment declines of 38% in the Czech Republic, 3% in Hungary and 32% in Poland over that period had output stayed the same.⁸ This suggests that wage dynamics do have the potential to explain an appreciable part of the employment changes during the transition, and better estimates of the response of aggregate employment to changes in wages should be an important research item for the future.

An alternative approach to understanding the effect of wage growth on employment is to estimate responses to output and wage changes at the firm level, where wages and output growth can be taken as exogenous. A study typical of this approach using firm-level data for a period covering the pre-transition and early transition years is by Basu et al. (2000) using firms from the Czech Republic, Hungary, Poland, Russia and Slovakia. The authors found that the elasticity of demand for labor with respect to sales began at values close to zero in all countries, and then increased in absolute value everywhere except Russia. Thus employment became more responsive to sales volume over time,⁹ but the authors conclude that wages did not play much of a role in shaping demand for labor. Unfortunately, there have not been many follow up studies using more recent data, and aggregating results for individual firms into an estimate of labor market elasticities is problematic.

⁸ Note that the wages are in US dollars so exchange rate fluctuations influence the reported wage. Given that we are dealing with small open economies, this seems the appropriate measure of firms' wage costs.

⁹ The elasticities calculated were similar to the ones reported in Figure 3, and, given the sample period covered by the study, they reflected mainly labor shedding behavior with few periods of sustained sales and employment growth.

2.4 Labor Market Flexibility

Pre-transition labor markets were characterized by low worker mobility between firms and regions. It was difficult to fire workers, workers could not easily move for location to location, and they were tied to company housing and the social benefits provided by the employer. Union membership was almost universal and wages were centrally set. These rigidities were largely eliminated in the course of the transition. Most analyses of the flexibility of transition economy markets compare measurable indicators of labor market rigidities such as the extent of unionization, the ratio of the minimum to the average wage, etc., to the practices of the EU-15 countries or of OECD countries. These studies (Cazes, 2002, Boeri and Terrell, 2002, Vodopivec *et al.*, 2005, and Boeri and Garibaldi, 2005) find that sources of labor market rigidities in the transition economies are no greater, and possibly less, than in the EU-15, although many of these studies are limited to the CEE countries. Because the EU-15 countries are often criticized for having rather sclerotic labor markets themselves, whether they are a good standard for evaluating labor market flexibility is questionable. Other authors attempt to measure flexibility in functional terms, that is, by looking at labor market responses to shocks. Bernal-Verdugo *et al.* (2012) use a large sample of countries to show that labor market flexibility has a positive effect on employment and Marelli *et al.* (2012) show that the Central European countries showed considerable labor market flexibility during the recent global crisis.

Looking at the relationship in the other direction, that is, from employment to wages, Van Poeck and Veiner (2007) survey a number of studies of wage responsiveness to unemployment, and they find quite small responses of wages to movements in employment or unemployment, but this exercise misses the rather sharp decline in wages in response to the global crisis as that is shown in Figure 5. While their own estimates make the authors somewhat more optimistic about wage flexibility in the four transition economies they study, nevertheless, even for these countries, there is not a finding of uniformly flexible responses of wages to changes in employment conditions. Efforts to estimate wage curves in Eastern Europe are summarized by Baltagi and Bartłomej (2013), who themselves use the Polish Labor Surveys for 1999-2010 to estimate the relationship between individual worker characteristics and the unemployment rate in 16 NUTS level 3 regions in Poland. They estimate that the elasticity of wages with respect to regional unemployment in Poland is -0.06, somewhat low by international standards, but also that it is considerably higher for men than for women. While Baltagi and Bartłomej have detailed data on over 100,000 workers, their study lacks data on employers, whose characteristics by region have to be captured by regional dummies.

2.5 The Role of Starting Conditions

The early decline in employment in the early transition and the subsequent failure of employment to recover its pre-transition levels when GDP recovered must be seen in

the context of these countries' starting conditions. Under communism, strong forces existed to ensure that everyone able to do so worked, and the absence of unemployment in communist countries was seen as a sign of socialism's superiority over capitalism (Granick, 1987).¹⁰ Central planning provided strong incentives for overstaffing and labor hoarding to allow enterprise managers the flexibility to meet plan targets (Mickiewicz and Bell, 2000, Ch. 1). These forces led to significantly higher labor force participation rates in the communist countries.¹¹

A second characteristic of the communist economy was a skewed output and employment structure (Gregory, 1970; Ofer, 1976; Balcerowicz, 2006). Industry's and agriculture's output and employment shares were above those of comparable market economies, while services accounted for disproportionately smaller shares of employment and output, and the communist countries were under-urbanized for their level of development. The transition to a market economy, then, required shifts of labor from agriculture and industry to services and from rural to urban areas. Impediments to labor mobility, especially the lack of a functional market for residential housing early in the transition, limited rural-urban mobility and exacerbated unemployment. Moreover, sectors that lost market share had both an excess of labor as well as an overcapacity in physical capital, further reducing their demand for labor through the substitution of capital for labor (Brada *et al.*, 2010). As a result, in transition economies, major structural changes in the composition of output, firm creation and destruction, the link between employment and housing, and rural-urban migration have played a much greater role in labor market developments than they have in market economies.¹²

Interpreting the decline in aggregate employment during the transition as a pathology resulting from a decline in the demand for labor by the private and public sectors may miss the point of the transition process taking place in the labor market. The employment levels now observed, especially in the more successful transition economies, may reflect new patterns of behavior on the part of the labor force and employers rather than shortcomings of the labor market. Seeking policies to restore the levels of employment achieved under communism or, put another way, seeing the decline in total employment in transition economies as a problem for economic policy

¹⁰ Granick described the Soviet economy as a "job-rights economy", meaning that not only were Soviet (and East European) workers protected against unemployment by excess aggregate demand for labor, but that these workers also had a more or less explicit right to a particular job at a particular location.

¹¹ While participation rates for men were only somewhat greater in communist countries than they were in comparable market economies, they were markedly higher for women, although women's participation ratios tended to show greater cross-country variance, reflecting national cultural norms.

¹² This is not to suggest that all transition economies require such shifts to the same extent. For example, in less developed countries, a natural reaction to the loss of employment in industry is a return to agriculture, where work on the family farm provides at least some measure of income.

to address, may be the wrong way to understand labor market developments in the region.¹³ In the course of transition, the equilibrium level of employment may have been shifting from a level consistent with the conditions that existed under central planning to a level more appropriate to a market economy.

2.6 Counting the Jobless and the Unemployed

So far, our discussion of labor market outcomes has focused on the number employed. Given the bias toward full-time work in transition countries, this means full-time jobs. However, the time path of the number of employed persons can give a misleading view of labor market developments. The number employed can change not only due to changing labor market conditions but also due to changes in the size and the demographic characteristics of the population. The populations of many transition economies are ageing, with retirees making up an ever-larger share of the population despite efforts to raise the retirement age (Rosefielde 2001, Svejnar 2002a). In others, population growth has led to high levels of youth unemployment (Svejnar 2002b). There is evidence of excess mortality in working-age people over the course of the transition, and a number of transition economies have experienced substantial emigration, especially of working-age individuals. Thus, part of the observed fall in employment may reflect demographic change rather than a lack of available jobs.

Early on in the transition, the percentage of working-age individuals who were in the labor force declined, but it must be recalled that, pre-transition, labor force participation ratios in these countries were unrealistically high, and, thus, over the longer term, the decline in the proportion working may reflect voluntary decisions not to work rather than the effect of weak labor demand.¹⁴ Mickiewicz and Bell (2000) cite OECD data to show that, for the Central European countries, the ratios of labor force to population are within the range of other European market economies. More recent figures show that, for example, in 2009 the percentage of working-age individuals employed in the Czech Republic was the same as in Germany, which may be seen as a well-performing labor market by EU standards, and in Slovakia, Poland and Estonia it

¹³ The Yugoslav economy did not have the same labor market institutions as did the centrally planned economies, but the labor-managed firms in Yugoslavia also tended to over-employ workers. See, for example, Comisso (1979).

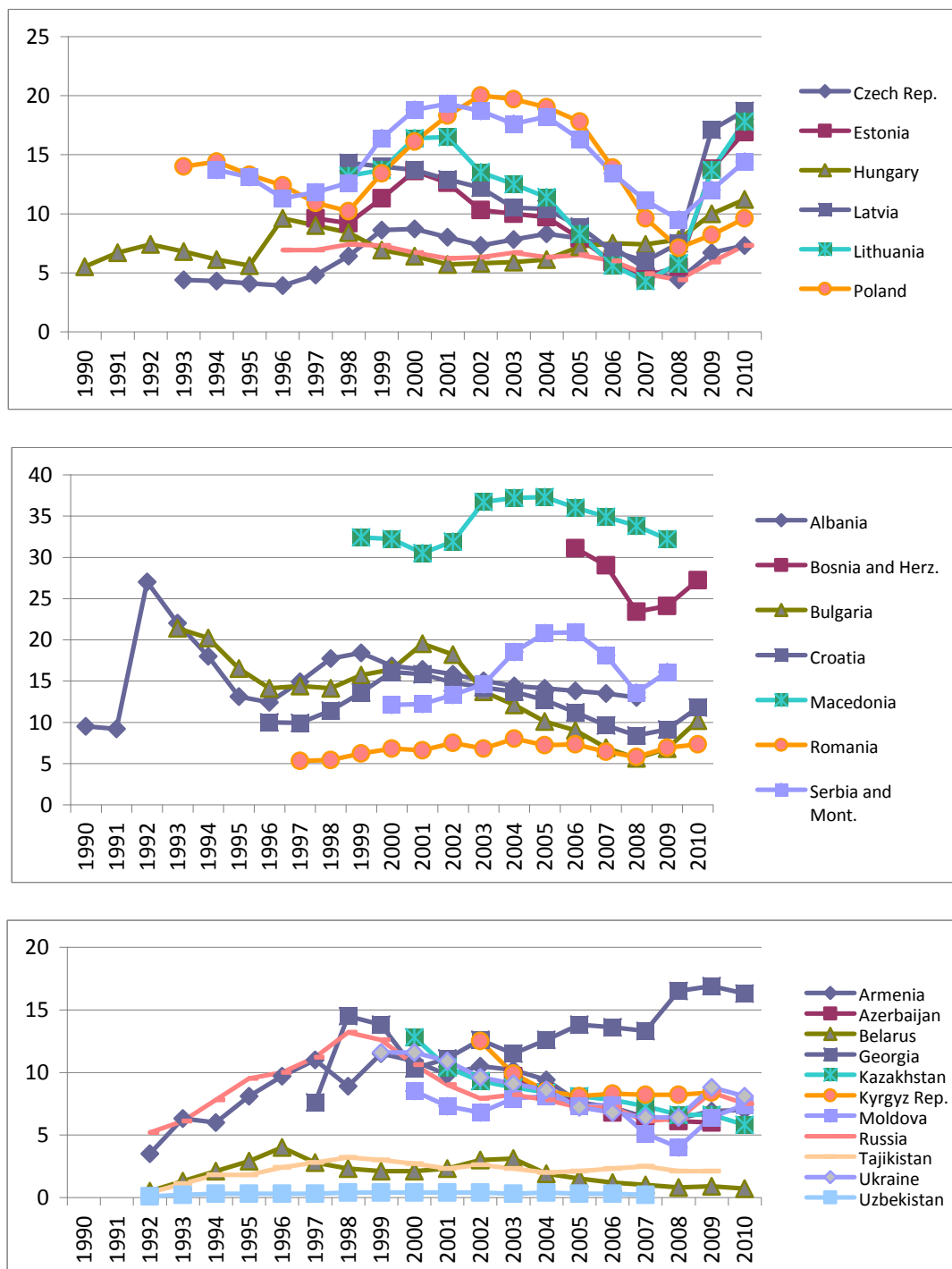
¹⁴ An interesting example of the voluntary departure from the labor force has recently been shown in the United States. Government estimates claim that, with the introduction of the Affordable Health Care Act (“Obamacare”), up to 2.5 million people may leave the work force. Evidently these people have been working more to have access to the health insurance provided by their employer than for the wages they could earn. With the passage of the new legislation, they can purchase such insurance without being employed, and therefore they are expected to leave the labor force. Under Communism, many social benefits were provided thorough employers, and when, in the course of transition, these employers ceased to provide such benefits, some people who had been employed in order to gain access to these benefits may also have ceased working.

was about the same as in France. This suggests that, in the more advanced transition economies, there may no longer be a general lack of demand for labor that is keeping workers from entering employment. In these transition economies there has been, and continues to be, much less part-time employment, but whether this is a good or bad feature of their labor markets is the subject of considerable controversy.

The Balkan countries and the former Soviet states show greater variation in labor force participation. In some, the share of the population at work is trending up. In Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan, on the other hand, rates are falling, although this may reflect movement out of registered economic activity into the informal sector. Heinegg *et al.* (2006) show the Central Asian rates to be below those of comparable countries elsewhere in the world. Rutkowski (2004, 2006) argues that even countries with rising labor force participation ratios will face labor market problems in the future because these high rates are often sustained by delayed enterprise restructuring, tax and wage non-payment, and the failure to eliminate unviable low-productivity jobs.

The most commonly used measure of labor market performance is the unemployment rate. However, unemployment is subject to well-known measurement problems due to workers who become discouraged by the lack of jobs and drop out of the labor force, the level and duration of unemployment benefits, the tying of health and other benefits to status as either employed or part of the registered unemployed, etc. Figure 6 presents the levels of unemployment over the course of the transition as measured by registered unemployment, those who register with the authorities as being unemployed. With the onset of transition, some countries experienced a sharp rise in unemployment, while in other countries the increase was delayed and more gradual. There was a tendency for unemployment to decline in the mid-1990s, followed by a second upward spike that resulted from the ruble crisis or from second attempts at stabilization in countries whose first attempts had not been successful. This spike was followed by a further decline in registered unemployment in a large number of the transition economies until the onset of the global crisis. During the recent global crisis, unemployment rates in the Central and East European countries shot up to high levels not much different from those experienced at the start of transition, especially in those countries that had already adopted the Euro and thus had fewer policy tools to mitigate the effects of the decline of their exports and the stop in capital inflows. The effect was more muted in the Balkans and even more so in the CIS countries, in part because they were less dependent on trade with the EU and on inflows of financial capital to maintain aggregate demand.

Figure 6. Registered Unemployment (%)



Source : <http://w3.unece.org/pdxweb/?lang=1>

Registered unemployment is an imperfect measure of unemployment because there may be strong incentives for workers to register as unemployed even if they are not interested in being employed. Registering as unemployed with the authorities is required to be eligible for unemployment support payments, labor office assistance in seeking a new job, formal retraining programs, and, in some countries, social benefits such as access to health care, etc. are tied to one's status as registered unemployed. Thus, even individuals who are working in the gray economy, who are working abroad, who have not worked in the past or who do not wish to work, will register as unemployed. Registered unemployment data may also underestimate unemployment if regulations for registering as unemployed require a long period of prior employment as a condition for registering, if registration offices are few and function poorly, and if unemployment benefits are minimal.

We also need to consider the existence of the so-called "gray" or "shadow" economy. Although definitions of the gray economy vary, the sources cited below restrict themselves to the production of legal goods and services whose production is deliberately hidden from the authorities so that the producers can avoid paying taxes, registering their firms, meeting regulatory requirements, or paying mandated benefits to their workers.¹⁵ The existence of the gray sector has a number of negative ramifications. Wages in the gray economy are usually lower than in registered firms, hours of employment may be limited and irregular, and the failure of gray sector producers to report and pay taxes on incomes exacerbates the tax burden on legal firms and reduces their competitiveness *vis-a-vis* gray-sector firms.¹⁶ The gray sector may harm consumers by providing shoddy goods. On the positive side, the gray economy allows producers whose functioning would be prevented by excessive regulation or other obstacles to produce goods and services and to provide employment and incomes to individuals who cannot find jobs in the legal sector.

¹⁵ For methodological issues in the measurement of the gray economy, see OECD (2002a); for a survey of the issues as they pertain to transition economies, see Feige and Ott (1999); and for a general survey, see Schneider and Ernste (2000).

¹⁶ Arabsheibani and Staneva (2012) however find that the informal sector in Tajikistan pays a premium relative to the formal sector.

Table 2. Size of Shadow Economy as % GNP 2002/3

Country	%	Averages	%
Czech Republic	20.1	Average for:	
Slovak Republic	20.2	Transition Economies	40.1
Hungary	26.2	21 Central and South	
Poland	28.9	American Countries	43.4
Slovenia	29.4	28 Asian Countries	30.4
Lithuania	32.6	21 OECD Countries	16.3
Albania	35.3		
Croatia	35.4		
Macedonia	36.3		
Uzbekistan	37.2		
Romania	37.4		
Bulgaria	38.3		
Estonia	40.1		
Kyrgyz Republic	41.2		
Latvia	41.3		
Kazakhstan	45.2		
Russia	48.7		
Armenia	49.1		
Moldova	49.4		
Belarus	50.4		
Ukraine	54.7		
Azerbaijan	61.3		
Georgia	68		

Source: Compiled from Schneider (2005).

Table 2 reports estimates of the size of the gray economy in a sample of transition economies and provides summary data to permit international comparisons.¹⁷ In developed market economies, the main motivation for grey economy activity is likely to be the avoidance of profit and income taxes, but in transition economies, other motives may predominate. Some of the more advanced transition economies, such as the Czech Republic, the Slovak Republic and Hungary, have gray sectors comparable to those of some OECD countries, and all lower-income transition economies, and some higher-income ones, have large gray sectors. A large proportion of the goods and services produced in these countries came from unrecorded economic activity. On average, these countries had gray economy sectors comparable to those of Latin American

¹⁷ Any estimates of the size of the gray economy in a given country are subject to considerable error, but the orders of magnitude reported here are relatively robust with respect to assumptions and methodologies.

countries and greater than those of Asian economies. The motivation for gray sector activities in the less developed countries is less the evasion of taxes and more the evasion of government regulations, difficulties in registering businesses, the predation of corrupt officials, lack of competitive markets, a weak business environment, etc.

Sectors of the economy where the gray economy is particularly prevalent include agriculture, construction, retail trade and repairs, hotels and restaurants and transportation, although no sector is entirely free of such activity (Nastav and Bojnec, 2007). The lower-income economies in our sample are thus structurally more susceptible to the existence of large-scale gray market activities due to their greater reliance on the sectors where gray economy activity flourishes the most. Because gray sector employment serves as a shock absorber, the picture of unemployment provided by registered unemployed may be too bleak since those registered as unemployed may be working in the grey sector. The existence of a large gray economy, however, also implies a variety of social and economic pathologies. Attempts to reduce the size of this sector through economic and legal measures, including the elimination of various unnecessary regulations on businesses, reductions in tax rates and better enforcement all should play a role in turning gray economy firms into legitimate ones, a process that will also serve to reduce the number of registered unemployed.

Some observers believe that a more accurate measure of unemployment can be obtained through labor force surveys (LFSs) conducted according to methodology devised by the International Labour Organisation, which defines unemployment as being without a job at the time of the survey, as having actively sought work before the survey, and as being ready to accept a job if offered. The survey sample is designed to reflect the demographic composition of the country. The main drawback of the LFS is that, due to its cost and more complex organizational requirements, it is only conducted from time to time whereas the registered unemployment data are continuously updated as people register with the authorities. Moreover, not all transition countries conduct such surveys, and some have begun to do so only recently.

2.7 Regional Labor Market Effects

A large literature has emerged on the regional effects of the transition process, both on the labor market and in terms of income levels within the transition economies, especially the East European ones; see Huber (2007) for a survey. A striking conclusion is that the transition period has seen a divergence in labor market outcomes and incomes among the regions within individual transition countries. Perugini and Signorelli (2004), Huber (2004) and Niebuhr and Schlitte (2009) find that capital cities and regions close to West European countries have done better, and regions that are heavily agrarian or dependent on industries newly developed under socialism have, on the other hand, worse labor and household income outcomes. This means that, within these countries, there was inter-regional β -divergence, with some regions doing better

over time and others worse. Moreover, migration between well-off and poor regions does not appear capable of reducing these differences (Fidrmuc, 2004). More recent literature suggests that, at least for the transition countries that joined the EU in 2004 or 2007, there seems to be a reversal of this trend (Večerník, 2012; Naumann *et al.*, forthcoming) and that regional disparities within the new member states may be declining.¹⁸

Concern about growing regional disparities in labor market outcomes and incomes needs to be viewed within the context of the starting conditions of these countries. Under Communism, many of the East European countries had small differences between the cost of living in cities and in the countryside relative to those seen in European market economies. In part this was due to the fact that urban housing, while difficult to obtain, was heavily subsidized as were utilities and public services, transportation, etc. Thus there was little need for an urban-rural wage differential to account for higher living costs in cities. Moreover, wages in agriculture were quite high due to the aggressive subsidization of food production, and, in some countries, the average wage in agriculture exceeded that in industry. Thus, the turn to a market economy had two effects. The first was that, as urban housing prices increased to market levels and as municipal services and urban transportation began to be priced at levels that covered their costs of production, the gap between urban and rural housing costs increased. As a result, market wages, and incomes, also had to reflect this differential, moving in favor of urban residents. The second effect came from the fact that the heavy subsidization of agriculture was sharply reduced, and this both lowered agricultural wages and reduced the demand for agricultural and food-processing labor. At these lower wages, some of these workers may have dropped out of the labor force or moved into the informal sector. This, of course is not the entire explanation for growing regional disparities, since the shuttering of factories and mines located in the countryside undoubtedly caused severe hardship for rural residents, and policies to address the effects of these shocks to local economies and their residents are needed. In this respect, more research is needed on the effectiveness of EU and national level efforts to aid such disadvantaged regions and to stimulate their development and to compare these policies to those that would promote the out-migration of workers from those regions to those that are performing better at creating jobs and economic growth.

It is worth noting that the contrast between regional β -convergence in old EU countries and regional β -divergence in the transition economies may have a partially benign explanation. Both groups of countries may be moving toward some common long-term equilibrium level of regional disparities, but they are doing so from opposite directions; the old EU members from a position of high regional inequality to one of

¹⁸ It should be noted that all these studies, whether they show convergence or divergence, suffer from relatively short sample periods so that their conclusions should be extrapolated into the future with caution.

greater equality through regional β -convergence and the new EU members through regional β -divergence from a position of greater regional equality to one that is less equal and that better reflects the regional distribution of physical and human capital. Certainly, additional research on this topic is needed.¹⁹

2.8 Conclusions

The upshot of this discussion is that there are various ways of conceptualizing labor market conditions in transition economies, and, while all provide some measure of information, they must be viewed in the context of the large structural changes taking place as well as in the context of the starting conditions pre-transition. The macroeconomic record makes clear that the transition has imposed considerable stress on workers, their incomes and on the labor markets in the region for a significant period of time during the transition. Nevertheless, we must be cautious in interpreting aggregate data on jobs and incomes both because of the major system changes brought about by the transition and because of problems with the data on unemployment, incomes and output.

The biggest difficulty for both scholars and policy makers is to understand whether phenomena such as growing unemployment, falling labor force participation ratios, etc., are to be viewed as desirable or not and how to respond to them with appropriate policies or how to study them with appropriate models. If unemployment grows due to the shedding of surplus labor by firms, then such an outcome is, in the short run, a desirable result of the transition, leading to more efficient firms, rising productivity, etc. and appropriate policies to deal with this may include active labor market policies, greater expenditures on education and the promotion of inter-regional labor mobility. However, if unemployment grows due to cyclical factors, then, perhaps, countercyclical monetary and fiscal policies are more appropriate. However, judging when the transition is “over” and the rules and behaviors of a “normal” market economy apply is difficult. Certainly, it would help if researchers were clearer about whether their judgments of the situation are based on short-run transition dynamics or on longer-term views that reflect labor market processes in developed market economies.

In the next section of this article, we will review the literature on the microeconomic evidence for labor market problems as well as examine some of the more specific causes of these problems and means for their solution.

¹⁹ This view is supported by the findings of Pryor (2014), who demonstrates that, despite evidence of increases in disparities in the distribution of income in the course of transition, the transition economies still have a much more egalitarian distribution of income than do countries that have had a market economy for many years. Thus, we should not confuse the direction of change in income inequality or regional disparities with their levels.

3. Microeconomic and Structural Developments

While the foregoing section has examined the macroeconomic trends in employment and output in the transition economies, in this section we focus on microeconomic phenomena. These include privatization, because privatization determines the nature of the business units in which employment takes place as well as the types of skills required of workers. There have also been significant changes in the structure of output, with services growing at the expense of industry and agriculture in the more successful transition economies and less so in the ones that have experienced slow growth and higher levels of unemployment. Firms have also changed in terms of their size, with small and medium-sized firms (SMEs) taking on a greater role in the economy and especially in the creation of new jobs. We examine the role of SMEs as well as the barriers to their growth. Then, we consider the creation of jobs through investment, both by domestic investors and by foreigners. Lastly we examine the labor market and labor market institutions to see what role they have played in the evolution of employment and unemployment in the course of transition.

3.1 Privatization and Employment

It is widely believed that privatization of state-owned enterprises (SOEs) improves their efficiency and accelerates aggregate economic growth in the long run.²⁰ Many economists believe that privatization is likely to cause layoffs in two ways. One is direct and takes place at the firms being privatized because they often eliminate redundant workers in order to cut costs and improve efficiency and profits. The other source of job loss occurs as the remaining SOEs in an industry face competition from the increasingly more efficient private sector, and they, too, lay off workers in order to survive (Kikeri, 1998).

Despite the widely held view that privatization causes large job losses, even studies that focus on the direct effect of privatization on unemployment, that is, on the employment changes that take place only in firms that have undergone privatization, tend to yield contradictory results. In transition economies, the results appear dependent on the form of privatization and the nature of the new owners. Brown *et al.* (2005) and Frydman *et al.* (1999), based on studies of a number of transition economies, do not find a strong negative effect of privatization on employment, though there appear to be country differences as well as differences within a country due to differences in the method of privatization. For example, the nature of the new domestic owners, particularly whether they are "insiders", meaning the firm's managers or workers, or "outside" investors, impact on employment patterns. Insiders tend to maintain the

²⁰ See Boardman and Vining (1989), Cook *et al.* (1998), Frydman *et al.* (1999) and Dewenter and Malatesta (2001). For transition economies, see, for example, Gupta *et al.* (2001), Commander and Coricelli (1995), and Appleton *et al.* (2002).

status quo, thus minimizing job losses, but at the cost of the firm's growth or even long-term viability, while outside owners tend to strive for efficiency, partly through job cuts, but also to seek long-term growth for their firms.

There is a reasonable consensus that the ways in which privatization takes place, as well as its pace, have a direct influence on the performance of privatized firms and of the economy as a whole.

3.1.1 Restitution and Small Privatization

In a number of East European countries, efforts were made to identify owners of property that had been nationalized and to return that property to those owners. In some cases, this involved the dissolution of collective farms and the distribution of the land and machinery, and, where previous owners could not be identified, the assets of the cooperative farm were distributed to the members.²¹ There is some controversy over the effects of such land redistribution on agricultural output and efficiency; although the effects on agricultural employment were generally negative.²² The initial effect of agricultural privatization was to reduce labor use in order to improve efficiency, although employment loss at private farms appeared to be less than at surviving collectives (Swinnen *et al.* 2005). In some countries, there has been resistance to such privatization, leading to the need to continue to subsidize the agrarian sector.

Restitution and the sale or lease of small establishments to their workers was also a major way of privatizing retail outlets, restaurants and service establishments. Countries that pursued such privatizations aggressively were able to create a class of small business owners who could serve as the foundation for an entrepreneurial class while simultaneously improving the quality and assortment of services offered by what was, in many countries, the sector with the greatest potential for growth.²³ Not all such establishments proved to be successful, and some owners took a passive approach, selling off the inventory of goods that they had inherited and then selling the business.

3.1.2 Privatization of Large Firms

The extent and method of privatization of large state-owned enterprises was the most controversial aspect of privatization, and it also had the greatest implications for

²¹ Alanen (1999) describes some of the motivation for, and practical difficulties of, such asset and land distributions.

²² See US Department of Agriculture (2001) for a positive assessment of the effect of agricultural privatization on grain output in Ukraine. Declines in employment, particularly in Eastern Europe, often affected women disproportionately as an agricultural employment pattern had emerged in many socialist countries where women remained as workers on cooperatives so that their family had access to land for private farming while the male family members sought employment in industry.

²³ For example, during the first few years of transition, in the Czech Republic 26,000 businesses were sold or leased in this way, 30- 80,000 in Poland and nearly 9,000 in Hungary (Brada, 1996).

economic performance and for the labor market. Three main methods were used. One was the sale of enterprises to foreign owners, often "strategic investors" who took a controlling interest in the former SOE. Generally, such strategic investors undertook a restructuring of the firm, injected some capital, updated or revised the firm's product line and integrated the firm into the parent's global supply chain. Case studies (Carlin *et al.*, 1994) indicate that labor shedding was not the prime focus of restructuring strategies, although critics of foreign investors were able to cite job losses, particularly in activities such as R&D and in the provision of social services such as employees' health, recreation and vacation facilities, that had been an integral part of SOEs' business activities before the transition.²⁴

A second way of privatizing firms was mass or voucher privatization, in which all or some citizens received vouchers that could be used to obtain shares of SOEs that were being privatized. The process was more successful in some countries than in others. In Poland and the Czech Republic, outside owners were created, and managers of the newly privatized firms had to adapt to the business objectives of the new owners and to the loss of state subsidies, leading to improvements in efficiency and long term growth.²⁵ Russia, on the other hand, experienced a voucher privatization that saw large firms pass into the hands of a group of "oligarchs", many of whom came from the old managerial elite, and smaller firms pass into the hands of their managers as well into the hands of local and municipal governments. In such circumstances, firms have not always flourished due to their owners' uncertainty about the legitimacy of their rights to own these firms and their resulting desire to move money overseas; local governments have tended to be paternalistic owners supporting local enterprises either directly or tacitly by countenancing tax arrears, etc. Some restructuring has taken place, but the slower recovery of output in Russia, Ukraine, etc., suggests that, overall, job growth in privatized firms has not been high.²⁶

The least successful form of privatization has been so-called insider privatization. Such privatizations, which involve the preferential distribution of vouchers to employees of a firm so that they can bid for its shares to the exclusion or disadvantage of outside investors; leasing, whereby the workers, or more likely the managers, of an SOE are able to buy the firm from the state for a nominal amount up front, promising to pay the full purchase price out of future profits. These and other preferential transfers of SOE's to insiders tend to avoid significant layoffs in the short run, but also

²⁴ See Sinn and Weichenrieder (1997) for discussion of these issues.

²⁵ The controversies about these programs involve mainly questions regarding the efficacy of corporate governance that is created through voucher privatization and whether there were appropriate market-oriented institutions to support such suddenly-privatized firms.

²⁶ See Standing (1996) and Krueger (2004) for studies of ownership change and restructuring of firms in Russia.

impede firm restructuring and growth in the long run.²⁷ Manger-owners often loot such firms of their most valuable assets or siphon off profits. Worker-owners find it difficult to decide for any restructuring that entails a reduction of the work force, and, as a result, these firms tend not to be profitable and often survive only by running up debt to banks, suppliers, or the state.²⁸ Although job losses are minimized, such firms invest little and thus also create few new jobs while impeding the ability and willingness of workers to change jobs.

Privatization in transition economies has affected employment directly, to some extent through lay-offs (or retention in the case of insider-oriented privatizations) of redundant workers, but also through the dynamism of restructured firms that have increased production and thus employment.

The way in which privatization has progressed has also influenced economic performance and the labor market in several important but indirect ways. One of these is through changes in the size distribution of firms. Small privatization and the breakup of large SOEs in the course of privatization sharply altered the size distribution of firms in transition economies in favor of small and medium-sized enterprises (SMEs) and to the detriment of very large and highly vertically integrated firms (OECD, 1994: 59-61; OECD, 1995: 41-43). Successful privatizations created new small and medium-sized firms where few or none had previously existed, and this allowed for greater dynamism and entrepreneurial activity, more competition, the development of managerial skills and the redirection of productive resources to their best uses. Second, privatization, when properly executed, also stimulated foreign direct investment, and such investment was particularly effective in increasing the demand for labor and in raising wages in the host economies (Kiss, 2007; Hanousek et al. 2010). Finally, privatization of banks and other businesses whose function it is to provide a supportive business environment was also important in promoting the growth of jobs.

3.2 Restructuring

We have previously noted that one of the characteristics of the centrally planned socialist economy was an over-development of industry and agriculture and a neglect of the service sector. Thus, a transition to the market economy would entail a shift of labor from the former two sectors to the latter. Table 3 shows that the shifts in employment shares for the more successful and higher income transition economies were relatively modest by the middle period of the transition. These advanced countries experienced shifts of labor out of agriculture and gains in service employment. Industry's share of

²⁷ See Slaveski, (1997) for a telling study of the Macedonian experience with insider privatizations.

²⁸ Djankov and Murrell (2002) report that firms privatized to outsiders have 50% more restructuring than firms privatized to insiders.

employment was relatively stable and even grew in the second decade after the fall of Communism. These trends, with the exception of the upturn in industry's share in some countries in the 2000s, are similar to trends in the advanced industrialized countries of Europe. It is noteworthy that industry's stable share of employment in these more advanced or successful transition economies has benefited from a major stimulus to industrial production due to their ability to access the EU market on favorable terms and from large inflows of FDI, much of it to the industrial sector. In general, the more advanced transition economies appear to be undergoing structural changes that are consistent with those taking place in higher income European market economies, with whose structures these transition economies are converging. The private services sector in transition economies has been, and will continue to be, a major engine of job creation. It should be noted that, in these more advanced transition economies, the private service sector is increasingly based on so-called "modern" services such as finance, data processing etc. and less on low-productivity activities such as retailing, etc.

Table 3. East European Sectoral Shares in Employment

	Agriculture		Industry		Services	
	1995	2005	1995	2005	1995	2005
Bulgaria	25.14	23.73	33.31	24.68	41.59	51.58
Czech Rep	6.37	4	41.64	39.03	51.89	56.95
Estonia	10.16	5.28	33.48	33.41	56.35	61.31
Hungary	8.38	4.96	33.13	33.16	58.39	61.87
Latvia	19.32	12.44	26.81	26.31	53.75	61.1
Lithuania	23.48	14.71	27.83	28.26	48.69	57.01
Poland	21.77	17.4	32.41	28.52	45.78	54.07
Slovak Rep	9.49	4.64	39.14	38.4	51.36	56.81
Slovenia	11.19	8.84	42.15	36.04	46.52	54.17

Source: Bab and Brada (2009)

Table 4. Sectoral Shares of Employment in CIS Countries

Country	Agriculture		Industry		Services	
	1991	2003	1991	2003	1991	2003
Armenia	23.3	^a 44.4	27.4	^a 14.1	36.2	^a 37.2
Azerbaijan	31.8	40.0	22.3	11.5	32.2	48.4
Belarus	21.1	^c 21.2	37.3	^c 34.9	36.6	^c 40.0
Georgia	^e 48.5	54.9	^e 10.3	8.4	^e 41.1	36.6
Kazakhstan	22.7	35.3	33.5	17.0	42.3	47.8
Kyrgyz Republic	35.5	43.2	26.5	23.3	38.0	41.7
Moldova	^d 48.9	43.0	^b 35.7	36.1	^d 37.5	40.9
Russian Federation	14.2	10.0	39.8	31.3	45.7	58.7
Tajikistan	44.7	^b 46.1	23.1	^b 17.4	25.6	^b 29.2
Ukraine	^d 20.5	18.9	^d 37.6	38.3	^d 47.6	51.2
Uzbekistan	41.9	^a 34.4	22.5	^a 20.3	ⁱ 34.9	^d 35.2

Notes: a-2000; b-1997; c-1994; d-1999; e-1998; f-1992; g-2001; h-2002; i-1995

Source: <http://ddcn.prowebis.com/>

Table 4 provides sectoral shares of employment for some CIS countries. Here we focus on the early transition period, where the shocks to these economies led to outcomes somewhat different from those observed in East Europe. First, in the CIS countries, the shares of agriculture in employment are higher, and, in more than half the countries, they have increased over the period of observation. To some extent these higher shares are a reflection of the CIS countries' lower level of per capita income; but the increase in agricultures' share of employment is a strong indication that jobs in industry and services were not being created, and that agricultural employment was a last resort as people moved back to rural areas to share work with farming families. Some countries have seen a large decline in industry's share of employment. Unlike in the advanced transition economies, where such shifts could be seen as a normal part of sectoral restructuring, in these CIS countries the sometimes sharp decline in industrial employment is a sign of the collapse in industrial output that accompanied the termination of inter-Republic pattern of production and trade and the accompanying subsidization of many CIS states' industrial sectors that had existed in the Soviet era. Overall, these shifts in employment suggest much less positive labor market developments than can be observed in the more advanced transition economies.

While the literature provides little evidence on the job creating effects of sectoral shifts such as the ones described here, more micro-oriented studies such as Bartelsman *et al.* (2004) support the view that shifts in resources among firms in different sectors should lead to higher efficiency with which resources, including labor, are allocated, and such increases in labor productivity should lead to increases in labor demand. Moreover, Bartelsman *et al.* (2004) also demonstrate that such shifts in resources among firms were

more common in the transition countries that had made the greatest progress in moving toward a market economy. Since, according to the evidence discussed in this section, those were also the countries that had the greatest sectoral shifts in favor of the secondary and tertiary sectors, it seems safe to conclude that these countries also experienced positive job creation from these shifts. The literature is clearer, of course, on the positive productivity benefits of shifts of labor from agriculture to industry and services than on the effect on employment.²⁹

3.3 Entrepreneurship and the Growth of the SME Sector

It is widely accepted that a major feature of all transition economies at the outset was an almost total absence of small and medium-sized firms (SMEs) and that such firms would have to become the engines of growth in the course of transition.³⁰ This expectation has at least partly been borne out as an OECD report notes:

'In virtually all of the relatively successful transition economies, new small private businesses have served as a primary engine of growth, absorbing resources from the state and former state sectors and exhibiting notable dynamism in the context of fierce competition and hard budget constraints.' (OECD 2002b: 76)

This view of the importance of SMEs to job growth is supported by a variety of studies that cover different countries and time periods of the transition. For example, Acquisiti and Lehmann (1999), Konings *et al.* (1996) and Konings (1997) examine Russia, Poland and Slovenia, Hungary and Romania respectively and verify that SMEs were a major source of both gross and net job creation, in most cases in an environment where, as we saw above, total employment was falling, mainly as the result of net job destruction in SOEs. Konings (1997) also shows that newly privatized firms outperformed older SOEs and private firms in growing employment, a finding that is consistent with the conclusions of Bartelsman *et al.* (2004), who show that the creation of new firms in transition economies by whatever means results in enterprises that are more productive than are existing firms. Drnovsek (2004) constructed a large panel of Slovene firms covering much of the transition period, which enabled him to separate out the job creating effects of SME formation and of SME growth. He concluded that SMEs were responsible for the bulk of job creation in Slovenia over a ten year period

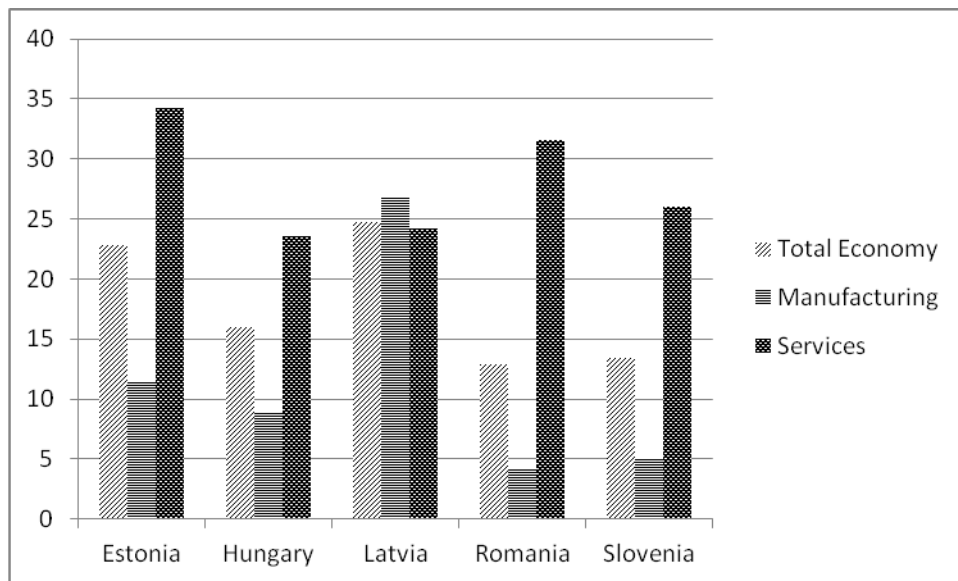
²⁹ See, Bah and Brada (2009) for the productivity enhancing effects of such sectoral shifts in transition economies.

³⁰ Nevertheless, there are strong counterarguments that SMEs have not been the engine of growth in transition economies to the extent claimed by conventional wisdom, and that the SME sector suffered from a variety of pathologies, including short-term perspectives, an excess of low-wage unskilled jobs, etc. See Bateman (2000) for a vigorous critique of the performance of SMEs in transition economies.

and that it was SME creation rather than the expansion of existing SMEs that was most important for creating new jobs.

While SMEs are important for job creation, not all transition economies have benefited to the same extent from the growth of the SME sector. Heinegg *et al.* (2006, Table 23) provide comprehensive data on SMEs' share of employment in transition economies. Their data yield two broad conclusions. The first is that, for all countries for which longitudinal data are available, SMEs' share of total employment over the course of the transition has increased. Second, despite this growth in the share of the SME sector in total employment, the inter-country differences in 2001 are much greater in both absolute and relative terms than they were at the start of the transition. In 2002, Albania, Latvia, and Croatia had the highest SME shares of employment at 75, 69.9 and 67 % while Azerbaijan, Belarus and Moldova had the lowest shares at 2.7, 4.6 and 8.2 %.³¹

Figure 7. SMEs' Shares of Employment in Selected Transition Economies (% total employment)

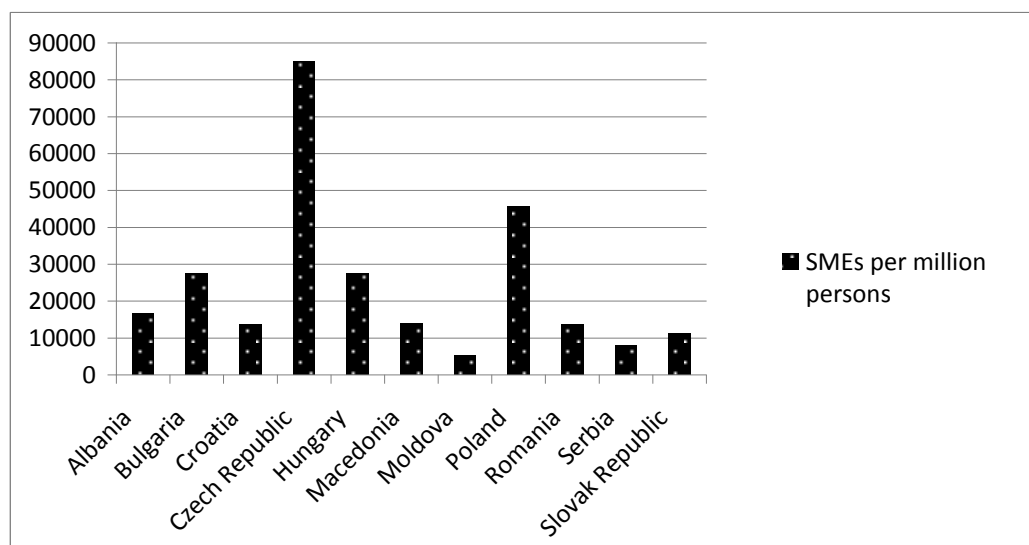


Note: Data are for the "1990s" and cover firms with less than 20 employees.

Source: Bartelsman et al. (2004)

³¹ See Estrin *et al.* (2006) for a somewhat different set of estimates.

Figure 8. SMEs per 1,000,000 Population in 2000



Note: SMEs are firms with less than 250 employees.

Source: Falchetti et al. (2003).

The perspective on the role of SME's in employment varies somewhat with the definition of SME. Figure 7, which is limited to firms with under 20 employees, suggests that transition economies, even the more successful ones, continue to have a deficit in SMEs' share of employment compared to West European countries and that SMEs in these countries tend to be concentrated in the services sector. The transition economies, with the notable exception of Latvia, have a large deficit in the share of small firms' employment in manufacturing. Figure 8 provides a different perspective on the role of SMEs by normalizing their number by the population. This perspective shows that, even among the Eastern European and Balkan countries, there are very large differences in the role of SMEs in the economy. An interesting question for further research, then, is the extent to which these differences in the role of SMEs also cause differences in labor market outcomes.

Examining the data on the share of SMEs in employment and output shows that the perception of the role of SMEs depends very much on how we define an SME. If we define SMEs as firms employing up to 250 workers rather than firms employing up to, say, 20 workers, we gain a very different conception of their role in the economy, and this raises some important research and policy questions. If the larger size limit is used, it clearly captures medium-sized firms, and, for some economies, this paints a picture of SMEs accounting for the larger part of employment and economic activity. On the other hand, it is unlikely that medium-sized firms in transition economies are a very large part of new firm formation. Many of such medium-sized firms were likely spin-offs of SOEs being privatized, and thus they were founded at the early stages of the transition; the transition economies' capital markets are not as yet very receptive to

initial public offerings (IPOs) to finance startups of firms large enough to employ 250 employees, and few individuals have sufficient personal wealth to start firms that big. Consequently, the most dynamic part of the SME sector in terms of startups and job creation has to be made up of much smaller firms, and, as the data indicate, these smaller firms account for no more than 25 percent of employment in the advanced transition economies. Hence, when we discuss the role of the SME sector in economic output and consider policies that can strengthen the SME sector, including firms up to 250 employed may give us an accurate picture of the size of the sector, but when we discuss the role of startups in creating jobs, we probably need to look at a much smaller universe of firms with no more than 20 or 50 employees.

Given the importance of SME formation to labor market outcomes as well as the extensive external donor support for SME formation and success in the transition economies, the sources of entrepreneurship, the problems faced by SME's at their inception and their ability to survive and prosper have been the subject of extensive research.³² One important finding is that the environmental drivers of entrepreneurship have changed over time. Initially, privatization opened up opportunities for entrepreneurial activity through small privatization, through the sale of productive assets by large firms undergoing restructuring and by the breakup of large vertically integrated firms, which created new opportunities for middlemen and sub-contractors. Large changes in prices and the chaotic situation created by the collapse of central planning and state authority made it easy for nimble and well-connected entrepreneurs to begin operations. It is worth noting that not all entrepreneurial activity was beneficial to the economy, as much of it relied on rent-seeking, connections, or the liquidation of privatized assets (Bateman 2000). Subsequently, in the Central European countries, a more rational and stable business environment emerged, one where entrepreneurial activity based on value creation came to the fore. In the Balkans and the countries of the former CIS, the business environment was not characterized by similar changes in the business climate, and, as result, entrepreneurship was both stunted and somewhat more continued along the earlier, more opportunistic, lines.

Surveys of entrepreneurs as well as of laws, institutions, and regulations, point to similar barriers to the formation and growth of firms. These factors are summarized in Table 5. The first indicator is the World Bank's index of the ease of doing business. This index is based on an objective survey of indicators and laws and regulations relating to how easy it is to start and wind up a business and how easy it is to operate it, including issues such as hiring and firing of workers, obtaining resources, exporting, etc. Ease of doing business is important for starting SMEs and for their ongoing activities. Nevertheless, low levels of labor protection, easy registration, and minimal regulation of businesses may also be indicators of a lack of a strong legal framework for the

³² This research is ably summed up in Estrin *et al.* (2006), from which this section draws.

functioning of SMEs. Moreover, examining laws and regulations may give a distorted picture of the barriers faced by firms because there may be a gap between public regulations and actual practice, so that short approval periods *de jure* may turn to bureaucratic delays and extraction of bribes from applicants in practice.

Table 5. Business Climate Indicators (Countries listed by rank in Ease of Doing Business)

	Ease of Doing Business, 2006	Growth Competitiveness Index, 2005	Capital Access, 2006	Perception of Corruption, 2006
Lithuania	16	43	40	46
Estonia	17	20	18	24
Latvia	24	44	40	49
Armenia	34	79	68	93
Slovak Republic	36	41	48	49
Georgia	37	86	NA	99
Romania	49	67	61	84
Czech Republic	52	38	39	46
Bulgaria	54	58	52	57
Slovenia	61	32	55	28
Kazakhstan	63	61	NA	111
Hungary	66	39	31	41
Poland	75	51	38	61
Kyrgyz Republic	90	116	NA	142
Macedonia	92	85	73	105
Russia	96	75	53	121
Azerbaijan	99	69	NA	130
Moldova	103	82	78	79
Albania	120	100	NA	111
Croatia	124	62	66	69
Ukraine	128	84	72	99
Belarus	129	NA	89	NA
Tajikistan	133	104	NA	142
Uzbekistan	147	NA	NA	NA

Note: NA = not available

Sources: Ease of Doing Business: World Bank (2007), Growth Competitiveness Index :

http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2005-06.pdf. Capital Access: Barth et al (2006),

Corruption index: <http://www.infoplease.com/lipa/A0781359.htm>.

The second indicator is the growth competitiveness index (GCI) compiled by the World Economic Forum, and it seeks to measure less-advanced countries' capability to sustain rapid economic growth based on their macroeconomic environment, public institutions, and technological capacity. It is in some ways the broadest measure of a positive environment for SME development, and it is based partly on objective facts and in part on observer opinion. The latter may inject a measure of realism, but may also be subject to a "herd mentality" among respondents. Macroeconomic stability is important for entrepreneurs, and the rule of law, enforcement of contracts, effective bankruptcy laws, public regulation of the financial system, etc., are all important institutional safeguards for small businesses. Technological capacity is important as well, since access to telecommunications and the internet, consulting support, etc., are needed by small businesses, and the development of human capital is critical for entrepreneurial activity to flourish. The difference between the rankings of Georgia and Armenia in these two categories illustrates the point. While the two countries may have few formal barriers to SME development and thus rank high on the ease of doing business index, they fare relatively poorly in the GCI index, presumably due to poor institutions, unstable macroeconomic climate, and unavailability of advanced technologies and the human capacity to utilize them effectively.

The third index measures how easy it is for firms to obtain access to finance. The measure is based partly on macroeconomic stability and partly on the development of the financial system and its legal and institutional underpinnings, including firms' access to domestic and foreign capital. Entrepreneurs in poor countries find it hard to obtain capital on their own for SME startups, and while access to bank lending or capital markets may not be appropriate for starting an SME in any country, the ability to mortgage personal property, to borrow against financial assets, etc., do depend on the strength of property rights protection and on the effectiveness of the banking system. Lacking such options for financing startups, entrepreneurs become dependent on their own funds or resort to the theft or illegal acquisition of state-owned assets to get their business going. In many transition economies, there has been considerable progress in the development of an effective banking system, often through the involvement of foreign banks, but, nevertheless, in too many cases, banks continue to prefer lending to large SOEs or privatized firms and, particularly, to invest in government bonds at the expense of the SME sector. The number of IPOs on East European stock markets has been very small, and SMEs have been left to rely on their own retained earnings to finance their growth. Overall, note that the financial index appears to be more closely correlated to the GCI index than to the ease of doing business rankings.

Finally, corruption, including the toleration of a large gray economy sector, places a heavy burden on SMEs, and some managers of legally registered firms cite gray market competition as the number one barrier to their firm's viability and growth. Corruption makes it expensive to start a business if payoffs to government officials are needed to register a business and obtain real property. Ongoing payoffs to officials and to local

"mafias" also take a heavy toll on revenues. Corruption in the enforcement of laws makes it difficult to use and rely on written contracts and to operate business on a rational "arms-length" basis, forcing business owners to operate through "trusted" networks and contacts with managers of other businesses and government officials, thus placing added emphasis on rent-seeking over value-producing activities and limiting entry into the SME sector to those who have the appropriate connections. The rankings of the transition economies vary considerably, but too many of these countries are characterized by high levels of corruption.

Table 5 clearly shows that there is, in the environment faced by SMEs, a large divide between the Central European countries and the former CIS countries. To the extent that these indicators more or less accurately capture the difficulties faced by SMEs, it is evident that, if we view SMEs as a major engine of job creation, then improvements in many aspects of the business climate are needed for greater job growth in the lagging transition economies and may be helpful in the more advanced countries as well. Studies by Pissarides *et al.* (2003), Brown *et al.* (2005) and Bah *et al.* (2011) confirm that financial and technical assistance to SMEs can help them to grow and to expand their employment over time.

A number of important research areas remain. The motives for entering into entrepreneurial activity in transition economies are not well understood in terms of the traditional division between "defensive" entrepreneurship undertaken by those who are not able to obtain employment in existing firms and "opportunistic" entrepreneurship undertaken to take advantage of opportunities thrown up by the business environment (Earle and Sarkova, 2000, Hanley, 2000). Also, the relationship between the small business sector and the informal sector needs additional study so that we can better understand the extent to which unregistered firms evolve into registered SMEs, thus expanding the legal sector, and the extent to which, and why, registered SMEs move into the informal sector. The latter question is not only of academic interest since policies to encourage firms to enter the legal sector or not drop out of it could be important tools for promoting economic growth.

3.2 Capital Formation and Foreign Direct Investment

Growth of employment in a modern economy depends on the creation of new work places through investment. Capital formation in the communist economy accounted for a large share of total output, although the slowdown in economic growth in the 1980s led to reductions in the rate of investment in favor of consumption throughout the region. Following the collapse of central planning, investment decisions devolved to the private sector rather quickly in some countries, but remained under state control through continued state ownership of firms, and informal means, such as continued government control of the banking system, in others. Many firms found themselves with excess physical capital. This included firms that had operated in the defense sector, in heavy industries, or in industries, such as microelectronics, that were

totally uncompetitive with industries elsewhere in the world, or that had had large exports to other Council for Mutual Economic Assistance (CMEA) countries through specialization agreements. It also included firms that were excessively vertically integrated and needed to outsource their supply chain and firms that wished to eliminate unprofitable lines of business or to reduce the social services that they had previously provided their labor force. Given the specificity of capital stock, defense plants could not be easily converted to making consumer goods, so the transition did spur some investment in sectors where consumer demand was strong. Nevertheless, the major structural changes, inflation, the collapse of intra-CMEA and then intra-CIS trade, and the decline in demand for many products led to a sharp downturn in investment.

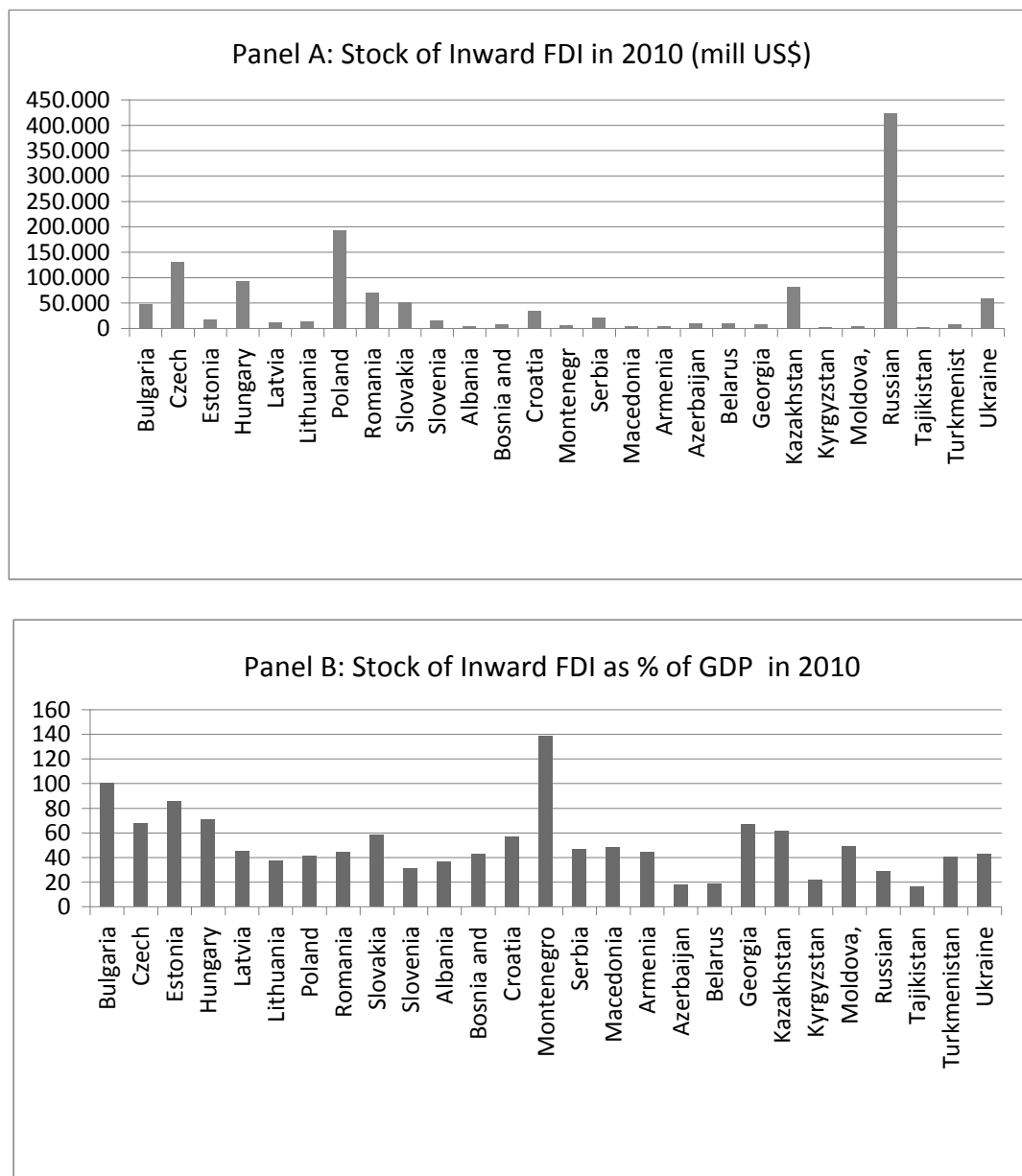
The initial effect of transition was a sharp reduction in investment. In the transition countries that became EU members, this decline was reversed fairly quickly and the 1990 levels of investment were regained in 1993-4 except in Estonia and Latvia. Now, the absolute real dollar amount being invested in these countries is considerably higher than it was in 1990, and the share of GDP allocated to investment has also risen over time. Thus shortfalls in capital formation do not appear to be a serious barrier to employment growth in these countries.

The Balkan countries show a somewhat different pattern. Other than Bosnia and Croatia, the Balkan countries suffered a much longer decline in investment, and, with the exception of Moldova, whose investment levels remain depressed; these countries' investment outlays did not surpass the 1990 level until 2002 or so. Some countries suffered from war, civil strife and unrest, or the spillover from regional conflicts. Others failed in their initial macroeconomic stabilization programs and had to repeat the exercise in the latter half of the 1990s. All of these countries suffered from slower and less effective implementation of reforms and privatization. A number of the less dynamic Balkan countries exhibit lower shares of investment in GDP. Overall, with the exception of Croatia, investment was not a dynamic force for job creation in these economies. Political stability in the region is a *sine qua non* for higher investment levels, but much remains to be done in terms of an improved climate for investment as well.

In the FSU countries, investment levels have remained well below the 1990 level for the entire period, and, in most of these countries, the share of GDP devoted to capital formation has fallen and is now at levels that are low by international standards. Thus, unless the investment climate can be dramatically improved, lack of capital formation will continue to be a problem for job creation.³³

³³ The existence of a large shadow economy in these countries makes it difficult to judge what real capital formation is; it may be that a, possibly large, part of the observed decline in capital formation is due to the failure to record gray economy investment.

Figure 9. FDI in Transition Economies



Source: www.unctad.org/fdistatistics

Foreign direct investment (FDI) is a particularly effective way of supplementing domestic saving and investment in the transition economies. It not only brings in additional capital, but also technology, managerial know-how, and integration into the supply chains of major multinational firms. In many transition economies, foreign-owned firms pay higher wages, generate higher profits, export more and create more jobs than do local firms (Hunya, 1996, Kiss, 2007). Firm-level studies also show that firms in transition economies taken over by foreign owners also undertake more

restructuring (Hanousek *et al.*, 2010). This observed better performance of foreign investors may be due to a selection bias caused by the foreign investors' ability to focus on the most promising domestic firms for their acquisitions as Hagemeyer and Tyrowicz (2011) suggest. Thus, additional research on the effects of greenfield investments versus acquisitions is needed. Economy-wide studies such as Cieslik, and Tarsalewska (2013) do show a positive effect of FDI on aggregate economic growth, but they do not indicate the channels through which FDI accelerates growth.

As Panel A of Figure 9 shows, there is a great variation in the amount of FDI that transition countries have received. In absolute terms, the Czech Republic, Hungary, Poland and Russia are the largest recipients of FDI inflows. On the other hand, as Panel B of Figure 9 shows, some small countries with low levels of GDP, while attracting smaller volumes of FDI, nevertheless have stocks of FDI that are quite high compared to the size of their economies. Also important is the presence of natural resources, which tends to attract large amounts of FDI, often without creating much lasting employment for local workers.³⁴

3.5 The Labor Market and Its Institutions

A natural question to ask is whether shortcomings and rigidities in the labor markets and the institutions associated with them can explain the high levels of aggregate unemployment, the low levels of job creation, the long duration of unemployment, and the high levels of youth unemployment that are evident in the transition economies. Certainly in terms of the criteria just enumerated, even the more successful transition economies have outcomes that do not match the averages of say, the EU or OECD member countries.

Labor market flexibility is usually characterized in terms of several indicators, including:

3.5.1 Unemployment Benefits

If unemployment benefits are high, then workers have fewer incentives to seek a new job. However, Cazes (2002) and Svejnar (2002b) argue that passive unemployment benefits in the transition economies are below EU levels both in terms of the percent of wages replaced by unemployment benefits as well as by the duration of such payments. Moreover, there is little relationship between the economic performance of these countries and the amount expended on passive unemployment benefits. Active benefits, those that support active labor market policies, (Ham *et al.*, 1998), which in some transition economies are higher than those of EU countries, may have some positive

³⁴ See Hunya (2003) and Brada, et al. (2006) for data on earlier patterns of FDI inflows.

impact on labor market outcomes, but the evidence is not conclusive, and these benefits should in any case promote market flexibility rather than impede it.

3.5.2 Unionization

High levels of unionization as well as the way in which unions are organized and how they are allowed to bargain with employers also affect the flexibility of the labor market. Svejnar (2002b), Boeri and Garibaldi (2006) and Van Poeck and Viener (2007) examine the extent of labor union membership as well as measures of labor union power in the transition economies, and they conclude that labor unions have no greater and perhaps less bargaining power in transition economy countries than they do in the EU.³⁵

3.5.3 Hiring and Firing Regulations

The literature on this topic, such as Boeri and Terrell (2002), is consistent with the impressionistic findings reported in Table 5 where ease of doing business, meaning, in part, the ability to hire and fire workers, does not correlate well with economic performance. The evidence suggests that job protection in the transition economies is no stronger than it is in EU or OECD countries.

3.5.4 Payroll Taxes

High payroll taxes are thought to be a problem for the transition economies. Under communism, a broad range of social programs and benefits was financed by the enterprises, and, in some transition economies, these levies and charges were retained, effectively paying for a large part of government social programs as well as contributing to general government revenue. Thus, from the standpoint of the firm, hiring workers is considerably more expensive than the workers' wage would imply. Svejnar (2002b) concludes that such a high wedge between wages and enterprise labor costs is a barrier to increased employment, although Cazes (2002) and Ederveen and Thissen (2007) provide contrary evidence.

While the foregoing indicators of labor market rigidity individually may not cause higher rates of unemployment in transition economies, it is possible that, taken together, they may still have a measurable effect. This possibility is addressed by Ederveen and Thissen (2007) who compare the effect of all these labor market rigidities on unemployment in transition and EU member countries. They find that differences in these indicators explain very little of the difference in unemployment rates between the two groups of countries. Thus, with the possible exception of high employment taxes, the labor markets of the transition economies do not appear to be at an institutional disadvantage *vis-à-vis* those of more developed European countries, and, to the extent

³⁵ Svejnar considers a broader sample of transition economies than do Boeri and Garibaldi and Van Poeck and Viener, who examine only those transition countries that joined the EU. The conclusions are quite similar despite these differences in country coverage.

they are at a disadvantage, this does not explain much of their unemployment. It is worth noting that the evidence for this argument comes largely from studies that focus on the Central European transition economies. Nevertheless, there is little evidence that labor protection is stricter or that labor unions are stronger in the former CIS countries. Boeri and Terrell (2002) explain the differences between Central Europe and the Baltic States and the other transition economies in labor market outcomes by noting that the Central European governments created a "wage floor" though their more generous unemployment assistance policies. Such a downward rigidity in the wages of low-skilled workers destroyed many of their jobs, but, at the same time, this downward rigidity stimulated the startup of new businesses. The former CIS countries, on the other hand, allowed wages of the unskilled to fall precipitously, saving their jobs, but creating major structural rigidities in the economy, including in the labor market.

3.5.5 Informational Efficiency

Another explanation for the poorer performance of transition economy labor markets may be a lack of information either on the part of workers about job opportunities and about going wages for various skills, or on the part of employers about the availability of labor skills they need or the cost of hiring workers with such skills. This argument is plausible given the labor market conditions of the communist era: small wage differentials, centrally-determined wages, and long-term employment for most workers meant that obtaining information about job opportunities made little sense for workers, and there were few formal ways of providing this information. From the employers' side, labor hoarding meant that employers were often indifferent to the skills and work experience of the workers they were hiring, as it was difficult to reward better workers through higher wages given centralized wage scales. This lack of institutions to disseminate wage information as well as the habit of not seeking such information or responding to it could lead to fewer workers changing jobs and fewer employers seeking changes in the skill composition of their work force. The result would be a more rigid labor market.

However, the available evidence suggests that the labor market in transition economies appears to be informationally efficient. Adamchik and King (2007) provide a direct test of the informational efficiency of the Polish labor market by fitting a stochastic frontier function that relates workers' wages to their skills, job experience and other characteristics. If the Polish labor market were inefficient, then there would be many workers who would have wages that were well off the wage frontier, meaning that they were not receiving the wage that they could be given their personal characteristics if they had better information about job market opportunities. Instead, Adamchik and King find that Polish workers are relatively close to the frontier, signifying that there are few large mismatches between worker characteristics and the wage they receive. Consequently, the labor market in Poland appears to be informationally efficient relative to the markets of West European countries. Another form of evidence of informational

efficiency comes from studies of the valuation of human capital by the labor market such as Munich *et al.* (2005) and Pastore *et al.* (2005). These studies find a growing rationality in the way in which the wage structure values workers' human capital. These findings are important not only for showing that transition economies' labor markets are efficient, but also because the rational valuation of workers' human capital suggests that training and education can play an important role in combating unemployment.

4. Conclusion

Perhaps the most striking conclusion from this review of labor market developments in transition countries is the heterogeneity of national experiences. The Central European and Baltic countries, while experiencing significant unemployment at the onset of transition and during the recent crisis, have by now established functioning labor markets. Policy interventions in these countries, as well as the measures that they took to create a functioning market economy, were, to a great extent, successful and effective. Good macroeconomic performance has gone hand-in-hand with good labor market outcomes. Although jobs were lost as these economies faced declines in demand and the need for a major structuring of employment opportunities, both between sectors and among state-owned and private firms, these countries, with the exception of Estonia and Lithuania, were able to generate sufficient growth to re-absorb many of the workers who had to change jobs, and thus employment has held steady and even increased in the past decade. Moreover, structural problems like mismatches between skills and job openings, the effects of a growing real wages on the availability of low-skill jobs, and non-labor market factors such as social and cultural barriers to regional mobility are diminishing over time. While these factors do deserve continued policy attention, there is also the expectation that they will be self-correcting in the intermediate term.

In much of the Balkans and in the former CIS countries, the situation is considerably different. Economic recovery from the transition recession has been much less dynamic, many low-paying jobs without great prospects for long-term improvement continue to exist, and the business climate is less conducive to the creation of new jobs. Unemployment and underemployment continue to be major problems. Given the low elasticity of employment with respect to output, efforts to create jobs directly through training or through the direct support of the business sector are not likely to create a large number of new jobs. Rather, the creation of quality jobs is most likely to come from improvements in the business environment; through further restructuring of firms; the creation of market-supporting institutions; the strengthening of the rule of law, especially in commercial relations; and in the reduction of corruption.

In a sense, the transition process, at least in the countries where it was more successful, represents an unprecedented experiment in changing the nature of the labor market and employment. The transition involved not only a movement of workers between sectors and firms, but also a major reconfiguration of the labor market from

one with high employment levels and low wages into one where employment levels were lower for at least a substantial period of time, if not permanently, with a concomitant large increase in labor productivity and wages. This was not a cyclical co-movement of employment and labor productivity, but a structural one and how it came about and what determined the magnitude of these changes are important questions for research. The southern tier countries of the EU, for example, could also benefit from such a restructuring of their labor markets. So could countries caught in the so-called middle-income trap. Of course, without a much better understanding of how the labor market reconfiguration was brought about in the transition countries, such policy prescriptions are neither credible nor wise.

Acknowledgement

The research underlying this paper was supported by a contract from Higher Education for Development on behalf of USAID to The Melikian Center for Russian, Eurasian and East European Studies at Arizona State University. Additional support from the Europe Institute at the University of Auckland is also gratefully acknowledged. We thank John Earle, two anonymous referees and the editors for helpful comments. The findings and conclusions reported herein are solely those of the authors and should not be attributed to the United States government, the African Development Bank or the Melikian Center.

References

- Acquisiti A., Lehmann, H. (1999), 'Job Creation and Job Destruction in Russia: Some Preliminary Evidence from Enterprise Level Data', *LICOS Discussion Paper*, **84**, Leuven.
- Adamchik V., King A.E. (2007), 'Labor market efficiency in Poland: a stochastic wage frontier analysis', *International Journal of Business and Finance Research*, **1**, 41-50.
- Alanen I. (1999), 'Agricultural policy and the struggle over the destiny of collective farms in Estonia', *Sociologia Ruralis*, **39**, 431-458.
- Appleton S., Knight J., Song L., Xia Q. (2002), 'Labor retrenchment in China: determinants and consequences', *China Economic Review*, **13**, 252-276.
- Arabsheibani G., Staneva A. (2012), 'Is there an informal employment wage premium? Evidence from Tajikistan', *Discussion Paper Series, Forschungsinstitut zur Zukunft der Arbeit*, **6727**. <http://hdl.handle.net/10419/62561> (accessed May 1, 2014).
- Aslund A., Boone P., Johnson S. (1996), 'How to stabilize: lessons from post-communist countries', *Brookings Papers on Economic Activity*, **1**, 217-291.
- Babecký J., Campos N.F. (2011), 'Does reform work? an econometric examination of the reform-growth puzzle', *Journal of Comparative Economics*, **39**, 140-158.
- Bah E., Brada J. (2009), 'Total factor productivity growth, structural change and convergence in the new members of the European Union', *Comparative Economic Studies*, **51**, 421-446.
- Bah E., Brada J., Yigit T. (2011), 'With a little help from our friends: the effect of USAID assistance on SME growth in a transition economy', *Journal of Comparative Economics*, **39**, 205-220.
- Balcerowicz L. (2006), 'Successes and failures in catching up: the post-Communist case' in Bienkowski W., Brada J., Radlo M.J. (eds.), *Reaganomics Goes Global*, Palgrave-Macmillan, Basingstoke.
- Baltagi B., Bartłomiej R. (2013) 'The Polish wage curve: micro panel data analysis based on the Polish labor force survey', *IZA Discussion Paper*, **7812**, Bonn.
- Bartelsman E., Haltiwanger J., Scarpetta S. (2004), 'Microeconomic evidence of creative destruction in industrial and developing countries', *Policy Research Working Paper Series*, **3464**, The World Bank, Washington.
- Barth J.R, Li T., Phumiwasana T., Yago G. (2006), *Capital Access Index 2006: Best Markets for Business Finance*, Milliken Institute, San Francisco.
- Basu S., Estrin S., Svejnar, J. (2000), 'Employment and wages in enterprises under communism and in transition: evidence from Central Europe and Russia', *William Davidson Institute Working Paper Number*, **440**, doi: 10.2139/ssrn.224746.
- Bateman M. (2000), 'Neo-liberalism, SME development and the role of business support centres in the transition economies of Central and Eastern Europe', *Small Business Economics*, **14**, 275-298.
- Bernal-Verdugo L.E, Furceri D., Guillaume D. (2012) 'Labor market flexibility and unemployment: new empirical evidence of static and dynamic effects', *Comparative Economic Studies*, **54**, 251-274.
-

-
- Blanchard O. J. (1997), *The Economics of Post-Communist Transition*, Clarendon Press, Oxford.
- Blanchard O.J., Kremer M. (1997), 'Disorganization', *Quarterly Journal of Economics*, **112**, 1091-126.
- Boardman A., Vining, A.R (1989), 'Ownership and performance in competitive environments: a comparison of the performance of private, mixed, and state-owned enterprises', *Journal of Law and Economics*, **32**, 1 – 33.
- Boeri T. (2000) *Structural Change, Welfare Systems, and Labour Reallocation, Lessons from the Transition of Formerly Planned Economies*, Oxford University Press, New York.
- Boeri T., Garibaldi P (2006), 'Are labour markets in the new member states sufficiently flexible for EMU?' *Journal of Banking and Finance*, **30**, 1394-1407.
- Boeri T., Terrell K. (2002), 'Institutional determinants of labor reallocation in transition', *Journal of Economic Perspectives*, **16**, 51-76.
- Brada J. (1996), 'Privatization is transition--or is it', *Journal of Economic Perspectives*, **10**, 67-86.
- Brada J., King A.E (1992) 'Is there a J-Curve for the economic transition from socialism to capitalism?' *Economics of Planning*, **25**, 37-53.
- Brada J., King A., Ma C-Y. (2010), 'Investing in turbulent times: The investment behavior of Polish firms in early transition', *Transition Studies Review*, **17**, 1–21.
- Brada J., Kutan A., Yigit T. (2006), 'The effects of transition and political instability on foreign direct investment inflows: Central Europe and the Balkans', *Economics of Transition* **14**, 649–680.
- Brada J., Slaveski T. (2012), 'Transition in a bubble economy', *Emerging Markets Finance and Trade*, **48**, 7–13.
- Brown J. D., Earle J., Lup D. (2005) 'What makes small firms grow? finance, human capital, technical assistance, and the business environment in Romania', *Economic Development and Cultural Change*, **54**, 33-70.
- Brown J., Earle J., Telgedy, A. (2005), 'Does privatization hurt workers? Lessons from comprehensive manufacturing firm panel data in Hungary, Romania, Russia, and Ukraine', *W. P. Uppjohn Institute Working Paper*, **05-125**, Klamazoo.
- Campos N, Coricelli, F. (2002), 'Growth in transition: what we know, what we don't and what we should', *Journal of Economic Literature*, **XL**, 793–836.
- Carlin W, Van Reenen J., Wolfe T. (1994), 'Enterprise restructuring in the transition: an analytical survey of the case study evidence from Central and Eastern Europe', *Working Paper*, **14**, European Bank for Reconstruction and Development, London.
- Cazes S. (2002), *Do labour market institutions matter in transition economies? an analysis of labour market flexibility in the late nineties*, International Institute for Labour Studies, Geneva.
- Cevik E., Dibooglu S., Barisik S. (2013), 'Asymmetry in the unemployment–output relationship over the business cycle: evidence from transition economies', *Comparative Economic Studies*, **55**, 618-627.
- Cieslik A., Tarsalewska M. (2013), 'Privatization, convergence, and growth: evidence for transition economies', *Eastern European Economics*, **51**, 5–20.
- Commander S., Coricelli F. (1995), *Unemployment, Restructuring and the Labor Market in Eastern Europe and Russia*, World Bank, Washington.
- Commiso E. (1979), *Workers' Control under Plan and Market*, Yale University Press, New Haven.
-

-
- Cook P., Kirkpatrick C, Nixson F. (1998) *Privatization, Enterprise Development and Economic Reform: Experiences of Developing and Transitional Economies*. Elgar, Cheltenham, U.K. and Northampton.
- Darvas Z., Simon M. (2000) 'Capital stock and economic development in Hungary', *Economics of Transition*, **8**, 197–223.
- Deliktas E., Balcilar M. (2005) 'A comparative analysis of productivity growth, catch-up, and convergence in transition economies'. *Emerging Markets Finance and Trade*, **41**, 6–28.
- de Melo M., Gelb A. (1996), 'A comparative analysis of twenty-eight transition economies in Europe and Asia', *Post-Soviet Geography and Economics*, **37**, 265-85.
- de Melo M., Gelb A. (1997), 'Transition to date: a comparative view', in Zecchini S, ed., *Lessons from the economic transition: Central and Eastern Europe in the 1990s*, Kluwer, Dordrecht.
- Dewenter K., Malatesta P.H. (2001), 'Public offerings of state-owned and privately-owned firms: an empirical analysis of profitability, leverage, labor intensity', *American Economic Review*, **91**, 320 – 334.
- Djankov S., Murrell P. (2002), 'Enterprise restructuring in transition: a quantitative survey', *Journal of Economic Literature*, **40**, 739-792.
- Drnovsek, M. (2004), 'Job creation process in a transition economy', *Small Business Economics*, **23**, 179-188.
- Dobozi I., Pohl C. (1995), 'Real output decline in transition economies: forget GDP, try power consumption data', *World Bank Transition Newsletter*, **6**, 17-18.
- Earle J., Sakova Z. (2000), 'Business start-ups or disguised unemployment? Evidence on the character of self-employment from transition economies', *Labour Economics*, **7**, 575–601.
- Estrin, S., Meyer, K.E., Bychkova, M. (2006), 'Entrepreneurship in transition economies', in Casson M.C. (Ed.), *The Oxford Handbook of Entrepreneurship*, Oxford University Press, Oxford.
- Ederveen S., Thissen L. (2007) 'Can labour market institutions explain high unemployment rates in the new EU member states?', *Empirica*, **34**, 299-317.
- Falcetti E., Sanfey P., Taci A. (2003), 'Bridging the gaps? Private sector development, capital flows and the investment climate in South Eastern Europe', *EBRD Working Paper*, **80**, EBRD, London.
- Fidrmuc J. (2004), 'Migration and regional adjustment to asymmetric shocks in transition economies'. *Journal of Comparative Economics*, **32**, 230-247.
- Feige E.L., Ott, K. (1999), *Underground Economies in Transition: Unrecorded Activity, Tax Evasion, Corruption and Organized Crime*, Aldershot, Ashgate, 1999.
- Filer R., Hanousek J. (2000), 'Output changes and inflationary bias in transition', *Economic Systems*, **24**, 285-294.
- Fischer S., Sahay R., Vegh C.A. (1996), 'Stabilization and growth in transition economies: the early experience', *Journal of Economic Perspectives*, **10**, 45-66.
- Frydman R., Gray C.W., Hessel M., Rapaczynski M. (1999), 'When does privatization work? The impact of private ownership on corporate performance in transition economies', *Quarterly Journal of Economics*, **114**, 1153-1192.
- Gabrisch H., Buscher H. (2006), 'The relationship between unemployment and output in post-communist countries', *Post-Communist Economics*, **18**, 261–276.
-

-
- Granick D. (1987), *Job Rights in the Soviet Union: Their Consequences*, Cambridge University Press, Cambridge.
- Gregory P. (1970), *Socialist and Nonsocialist Industrialization Patterns*, Praeger, New York.
- Gupta S., Schiller G., Ma H., Tiongson E. (2001), 'Privatization, labor, and social safety nets', *Journal of Economic Surveys*, **15**, 647-669.
- Hagemeyer J., Tyrowicz J. (2011): 'Not all that glitters: the direct effects of privatization through foreign direct investment', *Eastern European Economics*, **49**, 89-111.
- Ham J., Svejnar J., Terrell K., (1998), 'Unemployment and the social safety net during transitions to a market economy: Evidence from the Czech and Slovak Republics', *American Economic Review*, **88**, 1117-1142.
- Hanley E., (2000) 'Self-employment in post-communist Eastern Europe: a refuge from poverty or road to riches?', *Communist and Post-Communist Studies*, **3**, 379-402.
- Hanousek J., Kočenda E., Maurel M. (2010), 'Direct and indirect effects of FDI in emerging European markets: a survey and Meta-analysis', *Documents de Travail du Centre d'Economie de la Sorbonne*, **2010.24**, Paris.
- Heinegg A., Murphy R., Sprout R. (2006), 'Labor markets in Eastern Europe and Eurasia', *USAID Working Paper Series on the Transition Countries*, **6**, USAID, Washington.
- Huber P. (2004), 'Intra-national labour market adjustment in the candidate countries', *Journal of Comparative Economics*, **32**, 248-64.
- Huber P. (2007), 'Regional labour market developments in transition: a survey of the empirical literature'. *The European Journal of Comparative Economics*, **4**, 263-298.
- Hunya G. (1996), 'Foreign Direct Investment in Hungary: a Key Element of Economic Modernization', *Research Report*, **226**, The Vienna Institute for International Economic Studies, Vienna.
- Hunya G. (2003), *FDI in South-Eastern Europe*, The Vienna Institute for International Economic Studies, Vienna.
- Iziumov A., Vahaly J. (2002), 'The unemployment-output tradeoff in transition economies: does Okun's Law apply?', *Economics of Planning*, **35**, 317-31.
- Izumov A., Vahaly J. (2006) 'New capital accumulation in transition economies: implications for capital-labor and capital-output ratios', *Economic Change*, **39**, 63-83.
- Izumov A., Vahaly J. (2008) 'Old capital vs. new investment in post-Soviet economies: conceptual issues and estimates', *Comparative Economic Studies*, **50**, 63-83.
- Johnson S., Kaufmann D., Shleifer A. (1997), 'The unofficial economy in transition', *Brookings Papers on Economic Activity*, **2**, 159-221.
- Kikeri S. (1998), 'Privatization and labor: what happens to workers when governments divest?', *World Bank Technical Paper*, **396**, Washington.
- Kiss E. (2007), 'Foreign Direct Investment in Hungary', *Eastern European Economics*, **45**, 6-28.
- Konings J. (1997), 'Competition and Firm Performance in Transition Economies: Evidence from Firm Level Surveys in Slovenia, Hungary and Romania', *CEPR Discussion Paper*, **1770**, London, 1997.
-

-
- Konings J., Lehmann H., Schaffer M.E. (1996), 'Job creation and job destruction in a transition economy: ownership, firm size and gross job flows in Polish manufacturing, 1988-1991', *Labor Economics*, **3**, 299-317.
- Kosi T., Bojnec S. (2006), 'The impact of labor taxes on job creation and unemployment', *Ekonomický časopis*, **54**, 652-667.
- Krueger G. (2004), *Enterprise Restructuring and the Role of Managers in Russia.*, ME Sharpe, Armonk and London.
- Krueger G., Ciolko M. (1998), 'A note on initial conditions and liberalization during transition', *Journal of Comparative Economics*, **26**, 718-34.
- Kushnirsky F. (2001) 'A modification of the production function for transition economies reflecting the role of institutional factors', *Comparative Economic Studies*, **42**, 1-30.
- Lipton D., Sachs J. (1990), 'Creating a market economy in Eastern Europe: the case of Poland', *Brookings Papers on Economic Activity*, **1**, 75-147.
- Marelli E., Signorelli M. (2010), 'Employment, productivity and models of growth in the EU.' *International Journal of Manpower*, **31**, 732-754.
- Marelli E., Signorelli M., Tyrowicz J. (2012), 'Crises and joint employment-productivity dynamics: a comparative perspective for European countries', *Comparative Economic Studies*, **54**, 361-394.
- Mickiewicz T., Bell J. (2000), *Unemployment in Transition: Restructuring and Labour Markets in Transition*, Harwood Academic Publishers, Amsterdam.
- Munich D., Svejnar. J., Terell K. (2005), 'Is women's human capital valued more by markets than by planners?', *Journal of Comparative Economics*, **33**, 278-299.
- Murrell P., Wang Y. (1993), 'When privatization should be delayed: the effect of Communist legacies on organization and institutional reforms', *Journal of Comparative Economics*, **17**, 385-417.
- Nastav B., Bojnec S. (2007), 'The shadow economy in Bosnia and Herzegovina, Croatia and Slovenia: the labor approach', *Eastern European Economics*, **45**, 29-58.
- Neumann U., Budde R., Ehlert C. (forthcoming) 'Economic growth in European city regions – a new turn for peripheral regions in CEE member states after the EU enlargements of 2004/2007?', *Eastern European Economics*.
- Niebuhr A., Schlitte F. (2009), 'EU enlargement and convergence'. *Eastern European Economics* **47**, 28-56.
- Ofer G. (1976), 'Industrial structure, urbanization, and the growth strategy of socialist countries', *Quarterly Journal of Economics*, **90**, 219-24.
- Okun A. M. (1983), 'Potential GNP: its measurement and significance', in Pechman J.A., ed. *Selected Essays of Arthur M. Okun*, MIT Press, Cambridge.
- Onaran O. (2008), 'Jobless growth in the Central and Eastern European countries: a country-specific panel data analysis for the manufacturing industry', *Eastern European Economics*, **46**, 90-115.
- Organisation for Economic Cooperation and Development (OECD) (2002a), *Measuring the non-observed economy: A handbook*, OECD, Paris.
- Organisation for Economic Cooperation and Development (OECD) (2002b) *OECD Economic Surveys: Russian Federation*, OECD, Paris.
-

-
- Organisation for Economic Cooperation and Development (OECD) (1994), *Industry in the Czech and Slovak Republics*, OECD, Paris.
- Organisation for Economic Cooperation and Development (OECD) (1995), *Review of Industry and Industrial Policy in Hungary*, OECD, Paris.
- Pastore F., Verashchagina A. (2006), 'Private returns to human capital over transition: a case study of Belarus', *Economics of Education Review*, **25**, 91-107.
- Perugini C., Signorelli M. (2004), 'Employment performance and convergence in the European countries and regions', *The European Journal of Comparative Economics*, **1**, 243-278.
- Pissarides F., Singer M., Svejnar J. (2003), 'Objectives and constraints of entrepreneurs: evidence from small and medium-sized enterprises in Russia and Bulgaria', *Journal of Comparative Economics*, **31**, 503-531.
- Polanec S. (2004), 'Convergence at last?', *Eastern European Economics*, **42**, 55-80.
- Pryor F. (2014), 'A note on income inequality in East and Central Europe', *Comparative Economic Studies*, **56**, 42-51.
- Rosefielde S. (2001), 'Premature deaths: Russia's radical economic transition in Soviet perspective', *Europe-Asia Studies*, **53**, 1159-76.
- Rozmahel P., Kouba L., Grochová L., Najman N. (2013), 'Integration of Central and Eastern European Countries: Increasing EU Heterogeneity?', *WWWforEurope Working Papers Series*, **9**, WWWforEurope, available at: http://www.foreurope.eu/fileadmin/documents/pdf/Workingpapers/WWWforEurope_WP_S_no009_MS77.pdf (accessed May 1, 2014)
- Rutkowski J. (2004), 'Firms, jobs and employment in Moldova', *World Bank Policy Research Working Paper*, **3253**, Washington.
- Rutkowski J. (2006), 'Labor market developments during economic transition', *World Bank Policy Research Working Paper*, **3894**, Washington.
- Schneider F. (2005), 'The size of shadow economies of Turkey and other countries from 1999 to 2004', in Aktan C.C. (ed.) *Economics in a Changing World*, Yasar University, Izmir.
- Schneider F., Ernste D. H. (2000), 'Shadow economies: size, causes and consequences', *Journal of Economic Literature*, **38**, 77-114.
- Sinn H.W., Weichenrieder A.J. (1997), 'Foreign direct investment, political resentment and the privatization process in Eastern Europe', *Economic Policy*, **24**, 177-98
- Slaveski T. (1997), 'Privatization in the Republic of Macedonia', *Eastern European Economics*, **35**, 31-51.
- Standing G. (1996), *Russian Unemployment and Enterprise Restructuring: Reviving Dead Souls*, Palgrave Macmillan, Houndsmills.
- Stuart R C., Panayotopoulos C.M. (1999), 'Decline and recovery in transition economies', *Post-Soviet Geography and Economics*, **40**, 267-80.
- Svejnar J. (1999), 'Labour Market in the Transitional Central and East European Economies', in Ashenfelter O. and Card D. (eds), *Handbook of Labour Economics, Volume 3*, Elsevier, Amsterdam, 2810 – 2857.
-

-
- Svejnar J. (2002a), 'Transition economies: performance and challenges', *Journal of Economic Perspectives*, **16**, 3-28.
- Svejnar J. (2002b), 'Labor Market Flexibility in Central and East Europe', William Davidson Working Paper, **496**, Ann Arbor.
- Swinnen J., Dries M., Macours K. (2005), 'Transition and agricultural labor', *Agricultural Economics*, **32**, 15-34.
- US Department of Agriculture, FAS on Line, Trip Report (2001), *Crop Assessment Travel to Ukraine and Russia*,
http://www.fas.usda.gov/remote/soviet/2001/fsu_trip_report/fsu_report.htm (accessed on March 15, 2012)
- Van Poeck A., Veiner M. (2007), 'Wage flexibility in the new European Union members: how different from the old?', *Research Paper*, **2007-016**, Department of Economics, University of Antwerp, Antwerp.
- Večernik, J. (2012), 'Earnings disparities and income inequality in CEE countries: an analysis of development and relationships.', *Eastern European Economics*, **50**, 27-48.
- Vodopivec M., Wörgötter A., Raju D. (2005), 'Unemployment benefit systems in Central and Eastern Europe: a review of the 1990s', *Comparative Economic Studies*, **47**, 615-651.
- World Bank (2007), *Doing Business 2007: How to Reform*, World Bank, Washington.