Low unemployment in the Czech Republic: 'miracle' or 'mirage'?

The Czechs have wrought numerous accomplishments in transforming their country to a market economy; declining employment and labor force participation rates, however, blur the overall picture

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According to the conventional wisdom, the transformation from a planned to a market economy is usually accompanied by a high degree of unemployment. The State sector sheds excess workers, who are gradually absorbed into a growing private sector. In the Eastern bloc nations, it was hoped that the growth of the private sector would be rapid, despite its starting from a rather small base whose ability to absorb workers was thought to be limited. However, as a result of this constraint, in practically all of those countries, the economic transformation was accompanied by high levels of unemployment during the transitional period.[1]

The lone exception appears to have been the Czech Republic, whose transformation from a centrally planned economy to a market-oriented one has been accomplished with substantially lower levels of unemployment than were seen in other Eastern European nations. Indeed, in 1995, not only was the Czech unemployment rate less than that of every other former Eastern bloc nation, but it was even lower than those of the major European economies and the United States and stood second only to the Japanese unemployment rate, among the rates for 27 member nations of the Organization for Economic Cooperation and Development (OECD).[2] Although this accomplishment of the Czechs has been noted elsewhere,[3] no full, systematic discussion of the reasons the unemployment rate is so low in the Czech Republic has ever been presented in the literature. Accordingly, this article explores the reasons behind the highly touted "miracle" of low unemployment during and after that nation's economic transformation from a centrally planned to a more market-oriented economy.

Historical background

The Czech Republic was part of the Austro-Hungarian Empire until 1918. At that time, the nation of Czechoslovakia was created from the two regions of what would become the Czech Republic (Bohemia and Moravia), along with Slovakia and part of Silesia. The new nation had almost 70 percent of the old empire's industrial production and a high level of income. The Czech portion of Czechoslovakia had a gross domestic product (GDP) per capita that ranked 10th in the world, on a par with Belgium and Holland.[4]

After the German takeover during World War II, the Czechoslovakian nation was again reinstated. The Communist Party led a coalition government in 1946 and, 2 years later, at the urging of the Soviet Union, abolished opposition parties. From 1948 until 1989, the means of production were owned primarily by the State, and the economy was centrally planned, with a collectivized agriculture sector.[5] Czechoslovakia was a member of the Council for Mutual Economic Assistance (CMEA), a trading bloc of the Soviet Union and Eastern Europe. Czechoslovakia was the "economic forge" of the CMEA, with substantial exports of heavy machinery to the Soviets.[6] The country's limited contact with the more advanced nations of the West, along with other problems associated with centrally planned economies, led to economic stagnation and an increasing technological gap with the West.[7]

The Communist Party in Czechoslovakia ceded power in late 1989, and in early 1990 the first freely contested elections in 40 years resulted in the election of a non-Communist government. The Czech and Slovakian portions of the government voted to dissolve the federation, and on January 1, 1993, the Czech Republic and Slovakia became separate nations.[8] During the period of economic transition, the Czech unemployment rate has remained low. The rate was slightly under 2 percent at the beginning of 1991 and only briefly exceeded 4 percent since then.

Economic policies during transition

Major changes in the economy came about following the fall of communism. The fiscal policies of Czechoslovakia and, later, the Czech Republic focused on a balanced Government budget, relatively low inflation, a cheap Czech crown on international currency exchanges, and low unemployment rates. The reform process began in 1990 with the ending of price regulation in most sectors of the economy. A few notable sectors, including housing, energy, and transportation, continued to fall under Government price regulation.[9] In 1990, the Czechoslovakian crown was devalued and then pegged to a dollar-dominated international basket of currencies.

The new exchange rate made Czechoslovakian products more competitive in the relatively untapped international markets of the West. This new competitiveness was crucial, because the breakup of the CMEA meant that Russia and the other Eastern European trading partners now could, and did, purchase a much greater share of their heavy machinery from the West instead of Czechoslovakia.[10] Also, the pegged exchange rate increased the price of imported goods to Czechoslovakia, making foreign-produced goods more expensive to Czechoslovak and, subsequently, Czech consumers and domestically produced goods a more attractive purchase. When these policies were coupled with a balanced Government budget, the result was relatively low inflation and low unemployment during the transition phase. To be sure, the privatization of the economy was not without problems, with output falling by a fifth during the 1990–94 period, but the levels of unemployment and Government deficits were substantially below those of other Eastern European transitional economies, and the level of inflation was on a par with theirs.[11] (See table 1.)

With regard to the privatization of State-owned enterprises, several options were available to the Czechoslovakian and, later, Czech Government, including direct sale to foreign interests, auctions, employee ownership, and vouchers. The last method was the one most frequently used. The voucher system was initiated in 1992. Every Czechoslovakian citizen was given the opportunity to purchase relatively inexpensive vouchers that could be used to bid on shares of State-owned enterprises. More than three-quarters of adults purchased the voucher books. Rounds of bidding were held, with increases in the number of vouchers required to purchase shares in oversubscribed firms and reductions for enterprises that were undersubscribed. Several hundred investment funds were formed to pool the resources of individuals. Ownership in more than 1,800 Czech enterprises was offered.[12]

Although the typical large Czech privatized firm is under the control of former voucher holders,[13] a couple of key features make the Czech business enterprise different from the American firm, run by stockholders, and the resulting profit-oriented management system. First, the Czech Government still retained partial ownership of firms for which the number of vouchers was deemed insufficient to warrant selling the enterprise.[14] Also, the Government regarded some sectors of the economy as strategic and, thereupon, delayed their eventual full privatization. Today, the Czech Government still holds

Table 1. Economic performance of Eastern European economies, 1990–94

[In percent]

Statistic	Czech Republic	Slovakia	Hungary	Poland
Average annual unemployment rate	2.8	10.6	9.1	12.1
Change in GDP (constant prices)	–19.4	–22.1	–15.9	–6.6
Change in industrial output	–32.5	–29.2	–23.1	–19.8
Average annual inflation rate	20.3	22.2	25.5	95.5
Average Government budget deficit (1991–94, as percent of GDP)	.3	4.9	6.3	3.8
1994 GDP per capita (US dollars, calculated at purchasing power parity)	$9,490	$6,749	$6,537	$5,477

SOURCES: Vintrová, from OECD, 1995; United Nations, 1995; World Bank, 1994; bulletins of Central European Cooperation in Statistics; Eurostat.

Table 2. Unit labor costs in Central European countries, 1992

Country	Real hourly productivity[1]	Real hourly costs[2]	Degree of under-valuation of currency[3]	Labor costs at exchange rate[4]
West Germany	100	100	1.00	0.57
East Germany	42	69	1.00	.94
Czech Republic	34	29	.25	.12
Hungary	26	26	.47	.26
Poland	23	19	.38	.18

[1] For the entire economy; West Germany arbitrarily set to 100.
[2] West Germany arbitrarily set to 100.
[3] Ratio of purchasing parity to exchange rate of currency; Germany arbitrarily set to 1.00.
[4] Unit labor market costs, calculated per German deutsche mark.
SOURCE: Miloš Pick and Martin Fassmann, *Social Market Economy in the Industrial and Postindustrial Era* (Prague, Czech and Moravian Chamber of Trade Unions, Macroeconomic Forecasting Division, 1996).

anywhere from 45 percent to 100 percent of enterprises in electricity distribution, petrochemicals, coal mines, steelworks, aerospace, pharmaceuticals, and the rail system.[15]

Privatization preceded economic reform in the Czech Republic. Hence, the Government and a large number of small shareholders controlled the privatized firms. The Government might not wish to lay off large numbers of workers, and the large number of small shareholders could not exert influence directly on management. Consequently, incumbent management was able to retain power and resist shareholder demands.[16] Further, uncertainty existed as to whether there would even be new owners or whether the Government might instead retain ownership if the voucher bids were too low. As a result, management hesitated to make changes in light of the uncertain nature of who the future owners would be and how they would react to the changes.[17] Finally, legislation empowering labor was enacted along German lines, with employees entitled to representation on an enterprise's supervisory board.[18] In short, the strides taken to privatize State-owned enterprises have been great in a short time, but the managers of these enterprises are not subject to the pressures of cost-cutting and downsizing that managers in typical market economies face from small groups of large shareholders with high profits as their prime objective.

The causes of the Czech "miracle"

Six factors are generally cited as playing a role in low Czech unemployment during and after economic transformation: the low international value of the Czech crown, the human capital of the Czech work force, tripartite wage setting with a view towards maximizing employment, the efforts of Federal employment offices, market-oriented labor policies, and the small size of the agricultural sector of the economy.

Currency devaluation. The Czech Government drastically reduced the value of the crown on international currency markets and took actions to keep the rate low. Although this action was not unique among Eastern European nations, the degree of the currency devaluation, coupled with the productivity of Czech workers, reduced the unit labor cost of goods far below that of Hungary or Poland, as well as neighboring Germany. (See table 2.) According to the Exchange Rate Deviation Index, a measure of the degree that a currency is undervalued relative to its purchasing power, the Czech Republic had kept its currency more undervalued (cheaper) than either Hungary or Poland had through 1995,[19] keeping the price of Czech products low. When this low price is coupled with the close proximity of the Czech Republic to Germany and other large, prosperous Western European markets, the result is a high demand for Czech products and, therefore, a high demand for Czech workers and a concomitantly lower unemployment rate.

Education and training of the work force. Workers with greater levels of education and training are thought to be more adaptable to the changes in jobs that occur with economic transformation.[20] Hence, to the extent that Czech workers are better educated and trained, they could have an easier transition to a market economy and lower levels of unemployment.[21] Workers in the Czech Republic are perceived by employers as having a high level of education, on a par with that of Germany or Switzerland and higher than that of France.[22] Peter Murrell notes that the Czech labor force is highly skilled, even by the standards of developed market economies; moreover, the structure of Czech exports suggests that the country has a competitive advantage in goods that embody relatively high inputs of capital and professional, technical, and skilled labor.[23]

Kamil Janáček found that the less educated and unskilled have a higher rate of unemployment in both the Czech Republic and Slovakia.[24] The Czech work force has a large share of highly educated workers, with more than 9.2 percent of employees holding a university degree, compared with only 6.8 percent in Slovakia. Further, the share of skilled blue-collar workers is 38.1 percent in the Czech Republic, almost double the 19.7 percent in Slovakia. Coupled with the Czech Republic's close proximity to Germany and the low value of the Czech crown against international currencies, the high levels of education and training of the Czech work force have contributed to the low unemployment rate in the country.[25]

Tripartite wage setting. After the fall of the command economy, legislation was enacted that set up a new system of wage determination in Czechoslovakia. A tripartite assembly of government, labor, and management was formed to determine national wage levels for industries. Firms could exceed these guidelines, but at a cost of paying a substantial penalty based on the degree to which their total wage bill violated the guidelines. The system was removed for a while, but was reinstituted in the Czech Republic after the breakup of Czechoslovakia.[26] Wage increases were held to levels below the target levels by a desire on the part of employees, trade unions, and management to limit layoffs. Real wages fell, but the decline in employment was less than it might otherwise have been, and the resulting number of workers laid off was smaller.[27]

The Public Employment Service. The scope and degree of activities of the Czech Public Employment Service have exceeded those of other nations and contributed to reducing unemployment during the transition. The service engages in active labor market policies that include job counseling, the exchange of information, and training, as well as more direct activities, such as subsidizing employers and creating jobs in the public sector. The latter activities make up a larger share of the agency's budget than is typical for other OECD nations.[28] The network of offices is extensive, with 175 branches serving a labor force of slightly more than 5 million.[29] Jaromír Coufalík, of the Czech National Training Fund, estimates that approximately one-half of Czech workers changed jobs during the transformation. Such large changes might have resulted in substantially higher unemployment without the efforts of the Public Employment Service.

Tito Boeri and Michael C. Burda note that, in the Czech Republic, each employee of the Public Employment Service serves only 30 unemployed individuals, compared with an average of 200 in most OECD nations.[30] Hence, these service workers are able to devote more time to each unemployed person. Boeri and Burda also demonstrate that increasing expenditures for Public Employment Service activities in a district has a positive impact on the number of unemployed individuals who will become employed. This result is consistent with the evidence from Burda and Martin Lubyova, who calculate that some of the difference in the unemployment rates of the Czech Republic and Slovakia is due to the higher levels of expenditures on active labor market policies in the former.[31] The Czech Government has attempted to reduce the effects of the nation's economic transformation on firms and workers who are not familiar with a market system through the aggressive use of these policies. This, too, in part accounts for the lower Czech unemployment rates.

Low minimum-wage rates and less generous unemployment insurance benefits. The Czech Government's adoption of labor market policies in the areas of minimum wages and unemployment benefits has more of a free-market orientation than a social protection one. These policies have had the effect of reducing unemployment rates, but clearly, not without some burden on workers. The minimum wage in the Czech Republic has been set at a low level and has not kept pace with recent levels of inflation. In January 1995, the legal minimum wage amounted to only 27 percent of the average wage. As table 3 shows, this is consistent with a greater share of workers earning less than half, and a greater share of workers earning less than two-thirds, of the median wage than in Hungary or Poland.[32]

Further, unemployed Czechs will be likely to accept job offers at low wage levels, given the relatively small levels of unemployment benefits they otherwise receive. In 1995, the benefit level was 24 percent of the average wage in industry.[33] The maximum duration of benefits, 6 months, is also especially short, compared with that of other European and former Eastern bloc nations.[34] In short, low minimum wages, low levels of unemployment insurance benefits, and the short duration of such benefits have made it more expensive for unemployed people in the Czech Republic to continue their search for work. Instead, many of them take low-wage jobs, keeping unemployment rates relatively low.

Table 3. Low-wage employment, minimum wages, and the distribution of earnings in Eastern European economies, 1995 or 1996

Statistic	Czech Republic	Hungary	Poland
Percent of workers below half the median wage (1995)	10.4	6.9	4.6
Percent of workers below two-thirds the median wage (1995)	22.6	20.0	17.3
Gini coefficient for earnings[1]	[2].282	[3].323	[2].288
P.10 ratio[4]	[2]49.4	[3]54.7	[2]58.3
Unemployment rate (1996, percent)	3.3	11.6	13.6

[1] The Gini coefficient measures the dispersion of earnings in an economy. A value closer to zero represents a greater degree of earnings equality.
[2] 1995.
[3] 1996.
[4] The earnings of the workers in the bottom decile relative to the median wage.

SOURCE: All data except data on unemployment are from Jan Rutkowski, "Low Wage Employment in Transitional Economies of Central and Eastern Europe," paper presented at the Low Wage Employment Research Conference, Bordeaux, France, February 1997. Unemployment data are from World Bank, *From Plan to Market: World Development Report 1996* (New York, Oxford University Press, 1996); and Simon Johnson, "Employment and Unemployment," in Edward Lazear, ed., *Economic Transition in Eastern Europe and Russia* (Stanford, CA, Hoover Institution Press, 1995), pp. 391–418.

Table 4. Labor force participation and unemployment among older Czechs, 1996

[In percent]

Age group	Labor force participation rate	Unemployment rate
Both sexes:		
55–59	54.5	2.7
60–64	22.1	5.7
65 or older	5.3	3.9
Men:		
55–59	77.8	2.7
60–64	33.0	6.1
65 or older	8.7	3.9
Women:		
55–59	33.1	2.6
60–64	12.9	5.0
65 or older	8.7	3.9

SOURCE: *Employment and Unemployment in the Czech Republic* (Prague, Czech Statistical Office, Summer 1996).

A small agricultural sector. The economic transformation that reduced the level of publicly owned enterprises in the Czech Republic has had a major impact on the agricultural sector. Privatizing farmland would most likely lead to a more direct relationship between output and compensation for farmers and greater productivity per worker. Greater productivity would reduce the need for agricultural workers to produce the same crop level. These workers would possess few skills that could transfer to other sectors of the economy, representing a potential unemployment problem. Given the role of the Czechoslovakian economy in the old CMEA trading bloc—that of the economic forge, and not the breadbasket, of the council—there was relatively little employment in the Czechoslovakian agriculture sector and even less in the Czech portion of the nation. In 1989, prior to the transformation, only 11.1 percent of the work force in the Czech region of Czechoslovakia was employed in the agricultural sector.[35] Although the figure had fallen to 5.3 percent by 1995, the decline still did not require the relocation of as many workers as in other Eastern European nations. The result was less structural unemployment due to a mismatch of skills of displaced agricultural workers and less frictional unemployment, with fewer people needing to search for new jobs.

Is the "miracle" a mirage?

Despite the extremely low unemployment rate in the Czech Republic, there are two reasons the labor market picture might not be as bright as it appears: the decline in the level of employment and potential hidden unemployment in former State-owned enterprises. The number of employed individuals in the country declined by almost 480,000, or 9 percent—from 5.583 million in 1990 to 5.103 million in 1996. Although part of this decline was accomplished by the return of foreign guest workers to their homelands, a major share was due to a reduction in the labor force participation of older workers. Martin Myant notes that the number of working pensioners fell from 518,000 in 1989 in the Czech portion of Czechoslovakia down to 240,000 in the Czech Republic in 1995.[36] This 278,000 decline in the employment of the pensioners accounts for the majority of the fall in overall employment. The drop, due in some cases to plans that encouraged retirement, has resulted in both low labor force participation and low unemployment rates among the elderly. (See table 4.) Unemployment in this group will remain low unless, for some reason, such as an inadequate pension, these people want to reenter the work force and they have difficulty finding jobs upon reentry. The relatively low levels of labor force participation among those older than 55 can be maintained, but only with high pensions or other income support payments. The problem will be most acute among those 55–59 years of age, because they will require larger payments to keep them from seeking work that they can more easily find than those who are older.[37]

Although much of the Czech economy has been privatized, there is still a large number of surplus workers, whose contribution to production is minimal. These workers, who, because of either their lack of skills or the organization of the firm's production activities, contribute little or nothing to production constitute what might be viewed as hidden unemployment. The OECD estimates that in 1992 there were 350,000 excess workers on the payrolls of Czech enterprises.[38] If these workers joined the ranks of the unemployed, the unemployment rate would have risen from 3.5 percent to more than 10 percent that year. Further, if we compare the decline in output with the decline in employment across Eastern European nations, it appears that the degree of labor hoarding was greater in the Czech Republic than in other nations: in the period 1990–95, the ratio of the decline in GDP to the decline in employment was 0.35 in the Czech Republic, compared with 0.98, 1.29, and 5.67 in Slovakia, Hungary, and Poland, respectively. (See table 5.) In short, the Czech Republic had the biggest decline in output with the smallest decline in employment among the four nations. The relative stability of employment as output fell is consistent with firms hoarding surplus labor.

Hidden unemployment has been possible in the Czech economy for a variety of reasons. In 1994, approximately 40 percent of Czech workers were employed in State-owned enterprises.[39] Government decisions to preserve employment at the expense of cost containment resulted in workers with low productivity being kept on the State payroll. Hidden unemployment even was a problem for the one-third of Czech workers employed in private firms:[40] the voucher privatization plan did not produce many active shareholders, and old managers still run many of the privatized enterprises. Many of these managers retain vestiges of their central-planning background, according to which total production, rather than cost control or quality, are key goals.[41] These managers tend to keep workers

Table 5. Changes in gross domestic product (GDP) and employment of Eastern European economies during transition, 1990–95

[Percent change]

Statistic	Czech Republic	Slovakia	Hungary	Poland
Change in GDP	–24.0	–14.0	–15.2	–1.5
Change in employment	–8.3	–13.7	–19.6	–8.5
Change in employment/change in GDP	.35	.98	1.29	5.67

SOURCE: Reported in Simon Commander and Andrei Tolstopiatenko, "Unemployment, Restructuring and the Pace of Transition," in Salvatore Zeccini, ed., *Lessons from the Economic Transition: Central and Eastern Europe in the 1990s* (Dordrecht, the Netherlands, Kluwer Academic Publishers, 1997); data taken from the World Bank and the European Bank of Reconstruction and Development.

with low productivity, on the grounds that they still add *something* to production. To compensate for their retention, the workweek was reduced to limit layoffs.[42]

Although market forces usually lead to the dismissal of workers whose productivity is low, such changes might be slow in coming in the Czech Republic. Many of the privatized firms are still partially owned by the Government, because not all of the firm's shares were sold. In addition, the Czech Government can continue to make employment, rather than profits, the primary goal of the enterprise. Further, the ultimate threat to a firm that does not operate efficiently, namely, bankruptcy, is a little-used action in the Czech Republic: by late 1995, only 282 firms had actually completed bankruptcy proceedings. a rate far below that of Hungary or Poland.[43] Hence, as a penalty for retaining unproductive workers, bankruptcy might not be invoked, and firms that retain workers might even be *subsidized* by funds raised through privatization![44] Given the lower level of foreign ownership in the Czech economy, relative to that of Hungary or Poland,[45] the profit-maximizing motive is not as pervasive in the Czech Republic as it is in those countries.

Despite doubts about the accomplishment of economic transformation with low unemployment, there do remain some grounds for belief in a partial Czech "miracle." Even if the estimates of hidden unemployment are accurate, adding them to the unemployment figures would still leave the Czechs with an unemployment rate below the officially reported ones of Slovakia, Hungary, and Poland. Moreover, the low levels of unemployment in the nation as a whole and a mere 1.5-percent unemployment rate in the capital region afford reason to believe that if many of the workers making up the so-called hidden unemployed were let go, they would find employment. The monthly rate at which unemployed persons found employment was 14.5 percent in the Czech Republic, compared with only 1.8 percent in Slovakia, 4.0 percent in Hungary, and 3.0 percent in Poland, further supporting the point that, should excess labor be shed, those laid off in the Czech Republic could more easily find work.[46]

The difficulties associated with assimilating laid-off redundant workers also would be mitigated by the Czech propensity for being an entrepreneur. According to the Czech Statistical Office, in 1996, 1 in 8 Czechs was self-employed, with only a small number of these being farmers. Given this proclivity towards entrepreneurship, it is not unreasonable to suppose that that if excess workers were let go, they might wind up either taking a job in a segment of the economy with a labor shortage or becoming self-employed.[47]

IN THE CZECH REPUBLIC, the transition from a centrally planned to a more market-oriented economy has occurred with low levels of unemployment, far below those of other former Eastern bloc nations or even the major Western European nations. The Czech "miracle" is tarnished to a certain extent by a decline in employment and some hidden unemployment of workers who add little to production. Still, the unemployment rate is low, and these surplus workers would most likely be absorbed into other jobs. The Czech unemployment rate may rise in future years, especially if wage increases reduce the relatively low cost of labor. But the overall accomplishment during the transition still stands: the transformation is closer to a miracle than a mirage. □

Footnotes

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[1] For examples of the conventional wisdom on Eastern bloc unemployment during the economic transition, see World Bank, *From Plan to Market: World Development Report l996* (New York, Oxford University Press, 1996); and Simon Johnson, "Employment and Unemployment," in Edward Lazear, ed., *Economic Transition in Eastern Europe and Russia* (Stanford, CA, Hoover Institution Press, 1995), pp. 391–418.

[2] *Economic Survey of the Czech Republic* (Paris, OECD, 1996).

[3] Among the many publications in which the low unemployment rate of the Czech Republic has been noted are Tito Boeri and Michael C. Burda, "Active Labor Market Policies, Job Matching and the Czech Miracle," *European Economic Review*, vol. 40, 1996, pp. 805–17; Michael C. Burda and Martin Lubyova, "The Impact of Active Labor Market Policies: A Closer Look at the Czech and Slovak Republics," in David M. G. Newbery, ed., *Tax and Benefit Reform in Central and Eastern Europe* (London, Centre for Economic Policy Research, 1995), pp. 173–205; Simon Commander and Andrei Tolstopiatenko, "Unemployment, Restructuring and the Pace of Transition," in Salvatore Zeccini, ed., *Lessons from the Economic Transition: Central and Eastern Europe in the 1990s* (Dordrecht, the Netherlands, Kluwer Aca-

demic Publishers, 1997), pp. 331–50; John Ham, Jan Svejnar, and Katherine Terrell, "Czech Republic and Slovakia," in Simon Commander and Fabrizia Coricelli, eds., *Unemployment, Restructuring and the Labor Market in Eastern Europe and Russia* (Washington, DC, World Bank, 1995), pp. 128–62; Kamil Janáček, "Unemployment and the Labor Market in Czechoslovakia and the Czech Republic," *Eastern European Economics*, July–August 1994, pp. 55–70; Martin Myant, "An Incomplete Transformation?" in Martin Myant, Frank Fleischer, Kurt Hornschild, Růžena Vintrová, Karel Zeman, and Zdeněk Souček, *Successful Transformations? The Creation of Market Economies in Eastern Germany and the Czech Republic* (Cheltenham, U.K., Edward Elgar, 1996), pp. 128–62; Růžena Vintrová, "Stability before Growth?" in Myant and others, *Successful Transformations?* pp. 95–127; and Karel Zeman, "The Restructuring of Industry," in Myant and others, *Successful Transformations?* pp. 205–34.

[4] Vintrová, "Stability before Growth?" pp. 96–97.

[5] *Doing Business in the Czech Republic* (New York, Price Waterhouse, 1995).

[6] *Czech Republic, Slovakia Country Profile* (London, Economist Intelligence Unit, 1996).

[7] Vintrová, "Stability before Growth?" p. 97.

[8] For a detailed analysis of the background and economic consequences of the breakup of Czechoslovakia, see Alena Brustle and Roland Döhrn, "Disintegrationsprozesse in Osteuropa und wirtschaftliche Entwicklung am Beispiel der Tschechoslowakei," *RWI-Mitteilungen*, vol. 47, 1996, pp. 81–105.

[9] *Ibid.*, p. 101.

[10] Prior to transformation, the Czechoslovakian economy's share of trading with centrally planned economies was quite high, standing at approximately two-thirds of the nation's total trade. By contrast, in 1995, 65 percent of Czech imports came from developed market economies, and 60 percent of Czech exports went to these economies. The low international value of the crown helped open up export markets in the West for Czech goods (Vintrová, "Stability before Growth?") Further, the inexpensive crown made tourism in the Czech Republic comparatively cheap and contributed to the growth of this industry.

[11] The Czech economy has started to grow again. Real GDP increased by 6.4 percent in 1995 and 3.9 percent in 1996. Growth is predicted to be about 5 percent per year in the near term (*Economic Survey of the Czech Republic*, Paris, OECD, 1998).

[12] Myant, "An Incomplete Transformation?"

[13] *Ibid.*

[14] Although the Czech Government planned to sell its holdings in these firms, at the end of 1995 it still owned 52 billion crowns worth, an amount equivalent to about $2 billion. The Government planned to sell off these holdings by the end of 1997 (*Economic Survey of the Czech Republic*).

[15] *Ibid.*

[16] Myant, "An Incomplete Transformation?"

[17] *Ibid.*

[18] OECD, *Economic Survey of the Czech Republic*.

[19] Miloš Pick and Martin Fassmann, *Social Market Economy in the Industrial and Postindustrial Era* (Prague, Czech and Moravian Chamber of Trade Unions, Macroeconomic Forecasting Division, 1996).

[20] Janáček, "Unemployment and the Labor Market."

[21] Further, if Czech-manufactured consumer and capital goods are to compete in a world market instead of the guaranteed markets of the old Eastern bloc, a highly skilled labor force is a prerequisite for producing high-quality goods.

[22] J. Dee Hill, "Capital Likes Labour," *Business Eastern Europe*, Mar. 6, 1995, pp. 6–7. The highly qualified labor force has its roots in the education and manufacturing traditions of Czechoslovakia in the pre-World War II years (*Reviews of National Policies for Education: Czech Republic* (Paris, OECD, 1996)). Although the Communist regime's educational policies did not train workers in the various techniques and ideas that are necessary for a firm to compete in a capitalistic marketplace (for example, accounting, marketing, quality control, methods for dealing with changing technology, and so forth), the legacy the regime left is still a relatively well-trained work force, especially in light of the value of what workers can produce in relation to cost on international markets (OECD, *Reviews of National Policies*).

[23] Peter Murrell, *The Nature of Socialist Economies* (Princeton, NJ, Princeton University Press, 1990); original quote in *Industry in the Czech and Slovak Republics* (Paris, OECD, 1994).

[24] Janáček, "Unemployment and the Labor Market."

[25] Part of the motivation for German direct investment in the Czech Republic is that the highly qualified work force is able to employ high levels of technology to produce high-quality products. (See Friedrich Kaufmann and Andreas Menke, "Standortverlagerungen mittelst discher Unternehman nach Mittel- und Osteuropa," *Schriften zur Mittelstandsforschung*, Nr. 74 N.F., Stuttgart, 1997, pp. 156–7.)

[26] Ham, Svejnar, and Terrell, "Czech Republic and Slovakia," pp. 106–7.

[27] *Ibid*., p. 112.

[28] Boeri and Burda, "Active Labor Market Policies."

[29] *Ibid.*

[30] *Ibid.*

[31] Burda and Lubyova, "The Impact of Active Labor Market Policies."

[32] Jan Rutkowski, "Low Wage Employment in Transitional Economies of Central and Eastern Europe," paper presented at the Low Wage Employment Research Conference, Bordeaux, France, February 1997.

[33] OECD, *Economic Survey of the Czech Republic.*

[34] The Czech Republic offers financial support to unemployed individuals who wish to start up their own businesses. Although such programs are not part of the unemployment insurance system in the United States, they do exist in Hungary, Poland, and Slovenia and hence would not be a factor in explaining the lower unemployment in the Czech Republic. (See Martin Godfrey, "The Struggle against Unemployment: Medium Term Policy Options for Transitional Economies," *International Labour Review*, vol. 134, no. 1, 1995, pp. 3–15.)

[35] Myant, "An Incomplete Transformation?"

[36] *Ibid.*

[37] The low levels of unemployment in the Czech Republic are accompanied by relatively high rates of women's labor force participation. The rate was 65.6 percent in 1994, a figure substantially above the 53.0 percent for Hungary and 62.0 percent for Poland (*OECD Labor Force Statistics, 1974–1994* (Paris, OECD, 1996)).

[38] OECD report cited in Phillip J. Kaiser, "The Czech Republic: An Assessment of the Transition," in John P. Hardt and Richard F. Kaufman, *East Central European Economies in Transition* (Armonk, NY, M. E. Sharpe, 1996), pp. 506–17. Estimates of labor hoarding ranged between 12 percent and 30 percent at the beginning of the economic transition. (See Ham, Svejnar, and Terrell, "Czech Republic and Slovakia," p. 122.)

[39] Zdenek Souček, "Transforming Czech Enterprises," in Myant and others, *Successful Transformations?* pp. 163–204. Souček presents data from the Czech Statistical Office; the data are for enterprises with 25 or more employees.

[40] The one-third figure is from Souček, *ibid.*

[41] *Ibid.*

[42] Between 1989 and 1991, average annual hours worked per worker fell from 1,859 to 1,724. (See Ham, Svejnar, and Terrell, "Czech Republic and Slovakia," p. 121.)

[43] See "Bankruptcy: Theory and Practice," *Finance East Europe*, Dec. 1, 1995, pp. 1–2.

[44] Ham, Svejnar, and Terrell, "Czech Republic and Slovakia."

[45] Zeman, "The Restructuring of Industry."

[46] Commander and Tolstopiatenko, "Unemployment, Restructuring and the Pace of Transition," p. 336.

[47] The decline in overall employment might actually be less than official measures indicate, because some individuals have taken jobs off the books to evade taxes. This phenomenon, however, is not unique to the Czech Republic.