Globalization and Japanese Investment in the Czech Republic

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1. Introduction

Located in the center of the European continent, the Czech Republic covers an area of about 79,000 square kilometers and has a population of about 10 million. Before World War II, the Czech Republic was known as a world-leading industrialized country, and today it remains an industrialized country centering on manufacturing industries, such as machinery and automobiles. Since 1948, the country operated under a Soviet-type socialist system for about 40 years until 1989, when communist regimes collapsed in East European countries following respective revolutions. Today the Czech Republic continues its transformation from the old socialist political and economic regime to one based on democracy and market mechanisms. In the Czech Republic, as in other former socialist countries, this transformation to a new society presents a historically unprecedented challenge, and it is one that after 15 years continues today largely through the process of ongoing trial and error.

The transformation process in the Czech Republic began under the leadership of then Prime Minister Vaclav Klaus (now president). Considered one of the most important Czech politicians and economists of the recent era, Klaus placed emphasis on implementing market mechanisms and so-called radical economic reforms from 1990 to 1997. In 1998, the Social Democratic Party took the post of political power from the Klaus administration, and since then the political and economic conditions of the Czech Republic have changed significantly. The new government shifted the basic strategy of the Klaus administration, such as small government and promotion of market mechanisms, toward one of greater government control, such as in government-led industrial policy. Today it continues to overhaul policies established during Klaus government, including putting in place incentives for foreign direct investment (FDI) and improving social security among others.

A general survey of the situation in the Czech Republic from 1989 to the present (March 2006) shows a significant change occurring in 1998 within both the political and economic spheres. The turning point was the currency crisis of May 1997, which was triggered by the exposure of huge bad loans in the financial sector and related insufficient restructuring of enterprises, resulting from economic reforms that focused on macro-level factors and

neglected the micro level. As a result of the economic crisis and other problems, Klaus was forced to resign at the end of 1997 and the Social Democratic Party came to power in June 1998. However, the new government faced an uphill battle for reform considering the country's hard economic situation[1)].

While the government's main concerns during the initial stages of the economic transformation process were focused on macro-economic policy and reform, from the second half of the 1990s, corporate restructuring and privatization of state enterprises became the main targets of reform. At present, during the second half of transformation, such reforms have generally been completed, regardless of their success or failure. FDI incentive policy is currently the most pressing issues under globalization.

This paper focuses on FDI, especially in regards Japanese automobile investors in the Czech Republic and the implications of Japanese investment, which is of interest relating to the potential for the adaptation of Japanese management systems (such as the "Toyota Way") into Slavic society. It might mean that the Slavic countries such as Czech Republic, Poland, Russia and Ukraine face under globalization not only the global capital but also quite different corporate culture which they did not expected before.

2. The Czech Economy and Corporate Restructure

2.1. Background

Recent economic data for the Czech Republic shows generally sound growth. For example, year-on-year growth of real GDP reached 4.7% in 2004 and is estimated to be 4.9%

Table 1. Real GDP by Type of Expenditure - Yearly

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005 Estimate	2006 Forecast
Gross domestic product	bill. CZK 1995	1381,0	1440,4	1429,3	1414,4	1517,3	1576,3	1617,9	1642,0	1694,7	1774,2	1862	1947
	prev. year=100	105,9	104,3	99,2	99,0	101,2	103,9	102,6	101,5	103,2	104,7	104,9	104,6
Private consumption	bill. CZK 1995	701,7	757,2	775,5	763,1	814,8	838,0	860,1	884,2	925,1	956,0	982	1016
	prev. year=100	105,9	107,9	102,4	98,4	102,1	102,9	102,6	102,8	104,6	103,3	102,7	103,5
Government consumption	bill. CZK 1995	275,0	284,9	272,4	260,3	341,8	342,5	355,6	371,7	385,9	375,6	382	384
	prev. year=100	95,7	103,6	95,6	95,6	105,4	100,2	103,8	104,5	103,8	97,3	101,8	100,5
Gross capital formation	bill. CZK 1995	470,0	510,5	494,2	481,4	460,3	502,5	534,3	552,8	559,9	604,3	588	621
	prev. year=100	122,4	108,6	96,8	97,4	95,8	109,2	106,3	103,5	101,3	107,9	97,2	105,6
- Gross fixed capital formation	bill. CZK 1995	442,5	478,5	464,7	467,9	459,3	481,6	507,6	525,0	549,8	579,0	596	616
	prev. year=100	119,8	108,2	97,1	100,7	96,5	104,9	105,4	103,4	104,7	105,3	103,0	103,4
- Change in stocks and valuables	bill. CZK 1995	27,5	32,0	29,5	13,5	1,0	20,9	26,7	27,9	10,1	25,3	-9	4
Exports of goods and services	bill. CZK 1995	740,8	801,8	875,3	962,6	991,3	1154,7	1287,1	1314,8	1413,3	1715,7	1901	2104
	prev. year=100	116,7	108,2	109,2	110,0	105,5	116,5	111,5	102,1	107,5	121,4	110,8	110,7
Imports of goods and services	bill. CZK 1995	806,5	914,2	988,0	1053,0	1101,8	1281,6	1448,4	1519,4	1639,0	1940,8	2043	2230
	prev. year=100	21,2	13,4	108,1	106,6	105,0	116,3	113,0	104,9	107,9	118,4	105,3	109,1
Domestic demand	bill. CZK 1995	1446,8	1552,7	1542,1	1504,8	1616,9	1682,9	1749,9	1808,7	1870,8	1932,0	1952	2017
	prev. year=100	8,4	7,3	99,3	97,6	100,9	104,1	104,0	103,4	103,4	103,3	101,0	103,3
Contribution to GDP growth													
- Domestic demand	%	8,6	7,7	-0,7	-2,6	1,0	4,0	4,0	3,4	3,6	3,2	1,0	3,3
- - consumption	%	2,0	4,7	0,4	-1,7	2,2	1,5	2,2	2,4	3,2	1,1	1,8	1,8
- - gross capital formation	%	6,6	2,9	-1,1	-0,9	-1,2	2,5	1,8	1,0	0,4	2,1	-0,8	1,4
- Foreign balance	%	-2,7	-3,4	0,0	1,6	0,2	-0,1	-1,4	-2,0	-0,4	1,4	3,9	1,3

Note) From 1995 to 1998 data is based on constant price in 1995, and from 1999 to 2006 in chain volumes, reference year 1995.
The consumpion of non-profit institutions serving households (NPISH) is included in the private consumption.

Source) Ministerstvo Financi, *Makroekonomicka predikce Ceske republiky, 2001, 2006*, Ministerstvo Financi, Ceske republiky.

in 2005. This growth is expected to exceed 4% in 2006 through 2008. Year-on-year growth of gross fixed capital formation grew by 5.3% in 2004, and is estimated to be 3.0% in 2005 and expected to be 3.4% in 2006 (see Table 1). As for foreign trade, the ministry of finance pointed out that for the first time in five years a positive contribution (1.4%) of foreign trade to GDP growth was reached in 2004. In general, the Czech economy is showing good performance.

From 1997 to 1999, however, growth of GDP was negative (-0.8 in 1997, -1.2 in 1998 and -0.4 in 1999) as was gross industrial production. This was largely due to the lack of industrial policy including neglect of corporate restructuring and FDI. While macro-economic policy and its performance in the Klaus era were consistent and relatively stable in the first half of the 1990s, we can say that Klaus government neglected industrial policy in this time period. At the beginning of the transformation process, most state enterprises had a huge amount of debt owing to the government and the central bank. The state enterprises were radically privatized under the coupon privatization system without any organizational or financial restructuring. Some of the debt of the state enterprises was transferred into the government's special bank for consolidation, Konsoridacni Banka (KOB), but an enormous amount of debt was left with the enterprises. Moreover, the commercial banks then lent further amounts to the enterprises without conducting strict credit evaluations.

2. 2. After the Social Democrats Replaced the Klaus Government

When the Social Democratic Party came into power in 1998, the macro-economic situation of the Czech Republic took a turn for the worse and it emerged that the big enterprises, such as Skoda Plzen, CTK Prague and Komercni banka among others, had huge amounts of debt. In response, the government had to shift the standard privatization method from coupon privatization to direct sale in order to clear such debts. As a result, it sold about 200 billion CZK worth of state assets over the 3-year period 2000-2002 (see Table 2). In April 1998, the government had also introduced FDI incentives for the purpose of shrinking debt, enhancing economic growth and creating new jobs. As for Czech enterprises, after the currency crises of 1997, they moved to restructure themselves, which included large-scale labor adjustment, liquidation or bankruptcy of companies, sale of part of their organizations, changes to production and management systems and so on.

Table 2. Revenues of FNM

Type of transformation	Sale Domestic		Sale Foreign	
	1991-1999	2000-2002	1991-1999	2000-2002
Public auction	6,976	11	88	0
Public order	20,503	355	35	0
Direct sale to assets	44,147	1,491	5,219	0
Sale of shares	51,911	6,933	55,164	196,450
Total	123,540	8,789	60,507	196,450

Source) Fond narodni majtku Ceske republiky, *Vyrocni zprava fondu narodoni majetku CR za rok 1995, 1999, 2002*, Fond narodni majtku Ceske republiky.

The state enterprises and even the enterprises that had been privatized in the first-half of the 1990s, did not have clear objectives on their finances. In the second half of the 1990s, the enterprises at best set up targets for income, turnover and production. In other words, balance sheets based on the structure of capital and liability were not really being taken into consideration.

The traditional goal for state enterprises during the former socialism era was expanding the scale of production. For this the enterprises had to seek strong connections with bureaucrats in order to secure the funds for investment and so on. It was also important to have a connection in the state bank. As mentioned above, the relationship between the government and the enterprises, that is, the soft budget constraint, has arguably been retained to a certain extent even after the collapse of the socialist system (see Table 3 and Table 4).

Table 3. Credit Portfolio Quality (credits assessed indiviually)

	31 Dec. 1979	31 Dec. 1998	31 Dec. 1999	31 Dec. 2000	31 Dec. 2001	31 Dec. 2002	31 Dec. 2003	31 Dec. 2004	31 Dec. 2005
Classified credits, total, in CZK millions	266,390	258,004	291,061	257,762	209,866	147,102	114,009	118,826	127,641
of which: watch credits	60,595	58,721	92,124	85,814	75,984	71,332	64,400	74,320	80,965
substandard credits	26,811	33,427	39,379	54,910	32,295	27,515	19,298	19,344	17,572
doubtful credits	29,386	35,538	38,433	27,276	29,725	11,689	6,913	5,306	7,623
loss credits	149,597	130,318	121,125	89,762	71,862	36,566	23,398	19,857	21,481
Classified credits as % of total credits	26.95	26.45	32.15	29.83	21.53	15.78	11.15	10.84	11.72

Source) Ceska narodni banka, *Banking Supervision 1998, 1999, 2000, 2002, 2005*, Ceska narodni banka.

Table 4. Loans of KOB

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total old loans (CZK bn)	110.4	107.8	74.6	67.9	63.8	60.8	59.4	58	53.3
of which: classified (CZK bn/%)						50.8/83.6	54.6/91.9	54.7/94.3	53.3/100
loss (CZK bn/%)						39.7/65.3	44.9/75.6	51.8/89.3	52.4/98.3
New and newly assumed loans (CZK bn)			2.3	10.3	13.6	18.2	34.7	67	107.5
of which: classified (CZK bn/%)						13.6/74.7	14.6/42.1	35.5/53.0	72.2/67.2
loss (CZK bn/%)						4.3/23.6	9.3/26.8	14.3/21.3	52.7/49.0
Total loans in CZK bn)	110.4	107.8	76.9	78.2	77.4	79	94.1	125	160.8
of which: classified (CZK bn/%)				46.2/59.1	48.3/62.4	64.4/81.5	69.2/73.5	90.2/72.2	125.5/78.0
loss (CZK bn/%)				39.5/50.5	41.3/53.4	44.0/55.7	54.2 /55.7	66.1/52.9	105.1/65.4

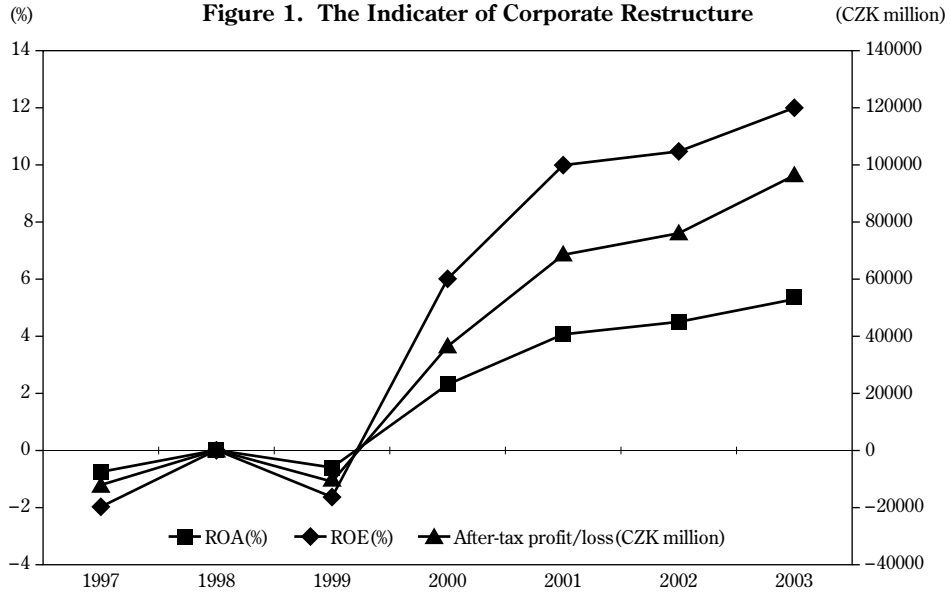
Note) The total loans in 1991and 1992 were including Slovak prat, of that Czech part 80.1bn CZK in 1991, 81.2 bn in 1992.

Source) Ceske konsolidacni banka, *Annual Report of Consolidation bank*, Ceske konsolidacni banka (see, www.kobp.cz/vyrz).

In other words, the role of corporate financing in the Czech Republic before 2000 was regarded as a second priority, or back-up support, in the activities of enterprises. There were financial targets for maximization of funding, production, turnover and profit, and such kind of behavior could succeed if the expansion of the scale could be realized. However, today it is not enough to merely secure the funds and to improve the balance sheet. It is necessary to make the right decisions on the scale and subject of the investment under a time frame that will generate the best possible return on investment.

Return on assets (ROA) and return on equity (ROE) are the most significant indicators of corporate restructure to judge investment profitability and efficiency. ROE, which is

Figure 1. The Indicater of Corporate Restructure



Source) *Ekonomicke vysledky prumyslu CR v letech 1997 az 2000, 2000 az 2003*, Cesky stasticky urad.

the value of after-tax profit divided by stock capital, is the financial indicator that shows how efficiently the equity capital acquired by the enterprise from the capital market or stockholder is generated. Of course, it is easy understanding that the higher the value of ROE, the better the corporate restructure. However, even with high lending debt capital, the value of ROE can be high. Therefore it is necessary to take into account another indicator, namely ROA, which indicates how efficiently an enterprise uses its total capital, including debt capital.

Figure 1 indicates the general financial development of corporate restructuring in the Czech manufacturing sector based on ROA, ROE and after-tax profit. As shown, there are negative values of all three indicators from 1997 until 1999. However, ROE turned positive reaching 6% in 2000, 10% in 2001 and 12% in 2003. ROA also turned positive to 2% in 2000, 4% in 2001 and 6% in 2003. After-tax profit changed in a similar pattern. Since, in general, corporate performance and finance is considered good at an ROE value of 10% or more, we can conclude that corporate performance in the Czech Republic has improved steadily between 2000 and 2003.

Table 5 shows after-tax profit by the type of ownership and by manufacturing sub-sectors in the Czech Republic. From 1997 to 1999, the balance of after-tax profit for private enterprises stayed in the red, but from 2000 it shifted dramatically into the black. Concerning the public enterprises, as the large bad debt write-offs by KOB had been mostly completed by 2000, the balance of after-tax profit showed a sound surplus except in 1999. In comparison to both private and public enterprises, the foreign controlled enterprises kept a surplus steadily since 1997, and recorded 58 billion CZK in 2003 which was 5 times of the profit of the public enterprises and 1.5 times that of the other private enterprises. Therefore, it seems reasonable to suppose

Table 5. After-Tax Profit/Loss

(million CZK)

	1997	1998	1999	2000	2001	2002	2003
Public enterprise	4,020	7,587	-8,856	205	9,845	13,586	16,105
Private enterprise	-20,800	-12,743	-19,625	3,629	11,876	30,318	37,056
Foreign controlled enterprise	1,654	8,192	16,003	33,614	41,694	43,636	57,934
Manufacturing	-11,377	46	-9,398	36,698	68,974	76,169	96,249
Manufacture of food products; beverages and tobacco	-1,193	-1,937	1,422	2,648	8,252	13,311	13,721
Manufacture of textiles and textile products	-1,577	-1,433	204	1,535	3,456	1,534	1,704
Manufacture of leather products	-1,321	-785	-1,444	-24	-273	-382	143
Manufacture of wood and wood products	402	944	1,247	2,181	2,566	3,158	4,340
Manufacture of pulp, paper and products; publishing and printing	-455	1,531	589	3,766	3,712	2,656	5,544
Manufacture of coke, refined petroleum products	1,682	2,041	1,262	1,929	326	-747	63
Manufacture of chemicals, chemical products	-4,039	-306	-177	2,258	4,030	4,578	3,084
Manufacture of rubber and plastic products	1,451	1,446	3,285	3,772	4,265	6,506	8,766
Manufacture of other non-metallic mineral products	1,893	2,705	4,090	5,227	7,412	6,769	10,193
Manufacture of basic metals and fabricated metal products	1,198	-481	-16,235	-4,667	8,204	8,634	18,948
Manufacture of machinery and equipment	-7,118	-5,836	-4,304	1,035	3,218	6,426	5,632
Manufacture of transport equipment	1,584	3,699	4,748	10,067	13,120	9,857	10,453
Manufacture of electrical and optical equipment	-5,021	-1,912	-5,739	3,827	7,790	9,422	10,440

Source) Cesky statisticky urad, *Ekonomicke vysledky prumyslu CR v letech 1997 az 2000, 2000 az 2003*, Cesky statisticky urad, 2002, 2005.

that the role of foreign capital enterprises in the Czech economy is vital and indispensable.

Turning to the after-tax profit by manufacturing sub-sector, from 1997 to 1999, half of the sectors were operating in the red, but since 2000, all sectors with a few exceptions recorded profits. In particular, the sectors of food products, non-metallic products, electric machinery and transport machinery indicated great improvement.

Table 6 shows the economic share of foreign controlled enterprises in the Czech manufacturing sector by turnover, production, book value added and number of employees. As for turnover, the share of the foreign controlled enterprises over all manufacturing sectors

Table 6. Share of Economic Results of the Forein Controlled Enterprises

(%)

Turnover	1997	1998	1999	2000	2001	2002	2003
Manufacturing	17.80	21.69	27.15	39.47	43.30	45.64	47.86
Manufacture of electrical and optical equipment	18.85	27.39	37.58	57.42	63.61	70.55	73.83
Manufacture of transport equipment	-	-	-	-	83.44	83.17	85.20
Production							
Manufacturing	17.87	21.78	27.63	39.99	43.69	46.13	48.4
Manufacture of electrical and optical equipment	18.95	27.36	37.67	56.47	62.31	70.93	73.84
Manufacture of transport equipment	-	-	-	-	85.07	83.46	85.27
Book value added							
Manufacturing	16.81	19.47	25.55	38.49	42.12	42.08	44.57
Manufacture of electrical and optical equipment	18.02	25.31	32.96	49.67	54.09	53.23	54.15
Manufacture of transport equipment	-	-	-	-	74.94	76.66	79.6
Number of emploees							
Manufacturing	10.71	13.16	16.2	24.9	28.2	30.36	32.38
Manufacture of electrical and optical equipment	19.55	25.55	29.85	43.31	48.55	50.01	53.62
Manufacture of transport equipment	-	-	-	-	58.78	59.38	62.67

Note) Foreign controlled enterprise indicates the enterprise of more than 50% foreign ownership.

Source) Cesky statisticky urad, *Ekonomicke vysledky prumyslu CR v letech 1997 az 2000, 2000 az 2003*, Cesky statisticky urad, 2002, 2005.

Table 7. Growth of Production of Manufacturing (to previous year, %)

	1999	2000	2001	2002	2003	2004
Manufacturing	-2.7	1.0	11.8	5.4	5.8	10.3
Manufacture of food products; beverages and tobacco	-0.6	-3.3	0.9	3.5	2.8	0.2
Manufacture of textiles and textile products	-13.3	9.8	3.9	-1.4	-2.8	-1.2
Manufacture of leather products	-5.6	-23.7	-14.0	-27.3	-19.3	-4.3
Manufacture of wood and wood products	1.4	12.7	7.6	6.1	5.7	6.2
Manufacture of pulp, paper and products; publishing and printing	0.3	0.5	2.1	2.8	9.5	8.5
Manufacture of coke, refined petroleum products	-13.2	-4.7	27.5	3.8	3.6	4.0
Manufacture of chemicals, chemical products	-1.6	-3.8	5.1	0.3	7.0	6.4
Manufacture of rubber and plastic products	9.7	5.0	22.2	18.6	13.8	9.7
Manufacture of other non-metallic mineral products	2.1	8.7	0.5	4.0	5.7	5.1
Manufacture of basic metals and fabricated metal products	-13.5	-6.2	7.6	-1.0	4.5	23.5
Manufacture of machinery and equipment	-6.1	10.2	16.7	2.6	6.4	3.4
Manufacture of electrical and optical equipment	22.3	1.0	43.4	27.5	2.9	13.5
Manufacture of transport equipment	-5.9	6.9	12.7	3.3	12.4	14.1

Source) Cesky statisticky urad, *Statisticka rocenka Ceske republiky 2005*, Cesky statisticky urad, 2006.

was 17.8% in 1997, but grew steadily to 47.86% in 2003. Notably, the share of foreign enterprise turnover in the electrical machinery sector and the transport machinery sector were quite large at 73.8% and 85.2%, respectively, in 2003. Concerning production and book value added, the same trends can be observed as for turnover. As for number of employees, in 1997 the share of employees of foreign controlled businesses in all manufacturing sectors was only 10.71%, but in 2003 the proportion reached 32.38%. By sub-sector, in 2003 the share in the electrical machinery sector was 53.62%, while the share in the transport machinery sector was 62.67%.

To sum up, it was observed in this section that the Czech manufacturing sector has improved since 2000 in terms of production, turnover, ROE, ROA and after-tax profit, especially in the electric machinery and the transport machinery sectors (see Tables 5-7, and Figure 1). The outstanding feature of the Czech manufacturing sector is the major role of foreign controlled enterprises, especially in the electric machinery and the transport machinery sectors, where their production and turnover reaches up to three quarters of the total. This data suggests that FDI is a crucial component of the Czech manufacturing sector and by extension a major influence on the national economy.

In the following section, we consider the development and features of FDI in the Czech Republic, especially Japanese investment in light of the recent high inflow of Japanese investment into the Czech automobile sector. Furthermore, we look at the influence of the unique management system and corporate philosophy of Japanese companies – specifically Toyota and its affiliates, the core Japanese investors in the country – on Czech corporate culture.

3. FDI of Japanese Investors: Toyota and Its Affiliates

3. 1 General Remarks

After joining the European Union, the Czech Republic and other nine countries have made remarkable progress with structural reform, and they are now considered good invest-

ment targets for foreign investors including Japanese enterprises, especially, Hungary, Poland and the Czech Republic.

In Hungary, most of the state enterprises have already been sold to foreign investors, and the high inflows of FDI have resulted in shortages of skilled workers in the country's western regions. In the Czech Republic, the direct sale of big strategic enterprises to foreign investors has almost been completed, and greenfield FDI is near the saturation level, as is the case in Hungary. The most serious problem in both countries is the shortage of skilled workers. In Poland, there is still room for investment since there remain many uncompetitive state sectors in need of restructuring and relatively skilled workers are abundant.

Japanese investors have a strong need to support and enhance their global manufacturing structures. There are three regions in which they pursue strategies for developing their production and sales networks: Asia, North America and Europe. There is much room for improving their networks in Europe, where the EU is the target market. In the EU-15, already 886 Japanese companies have established themselves there.

The Czech Republic can be considered one of the best locations for local production for the EU market for the following reasons: (1) the country's tradition of manufacturing; (2) many qualified and skilled workers; (3) qualified production managers; (5) advantageous geographical location for the EU market; (6) relatively well established infrastructure (roads, railways, electric power, etc.); (7) lower labor costs than EU-15 countries; and (8) FDI incentive programs (several years' tax holidays, duty free import of equipment, job creation grants, site development support, etc.).

We can observe a variety of industrial sectors for Japanese investment in Western Europe, but in the case of the CEE there is a strong concentration in the automobile-related and electric machinery and electronics sectors. In particular, investment related to the automobile industry has been very active in the CEE and this region is becoming one of the centers for Japanese automobile manufacturing in Europe. The amount of Japanese investment in the Czech Republic in this sector is now the second largest in Europe next to that in the UK.

3. 2 Japanese Investors in the CEE

Now we examine the behavior of Japanese companies in the CEE. Looking at the history of European business activities of the Japanese companies that have made investments in the CEE, we see that many companies started their business operations in a Western European country before setting up operations in the CEE. This means that a move to CEE for them is not a first experience in Europe, but rather an enlargement or transfer of their European business activities after operating in one or more other European countries. Consequently, we can project that many Japanese enterprises that have invested and will invest in the CEE are companies that already have facilities in Western Europe[2)].

While in the case of consumer goods, market size can be estimated by population size and GDP, industries such as automobile parts require more specific customers. Their custom-

ers are not individual consumers but specific car manufacturers and large parts producers[3]. They need information about their potential customers for making a decision of investment. Investment in the CEE by large Japanese manufacturers for their first European operations or the enlargement of their existing production capacities in Western Europe will not only induce large and medium-sized parts manufacturers to locate there, but will also encourage smaller parts manufacturers who do not have enough experience for doing business in Europe to come to the CEE[4].

As the Czech economy has seen steady growth since 2000, and the main reason of this expansion can be attributed to steady domestic consumption and FDI (see Table 1). The amount of FDI (stock base) totals € 33 billion from 1993 until 2003.

The Czech Republic saw a relatively late increase in FDI compared to Hungary and Poland over the past decade. A main reason why the FDI boom has come later to the Czech Republic is that the previous government's reform strategies neglected industrial policy such as FDI incentive programs[5].

Even before the Czech Republic and the other newest members joined the EU, Japanese investors, influenced by rapid globalization, were looking for good locations to invest in the CEE. It was difficult for newcomers to find good places in Hungary, since companies that invested earlier had taken the better locations. Toyota, for example, had the two candidate locations of Poland (southern region) and Czech Republic (central region), and decided to set up their assembly facility with Peugeot in the Czech Republic[6].

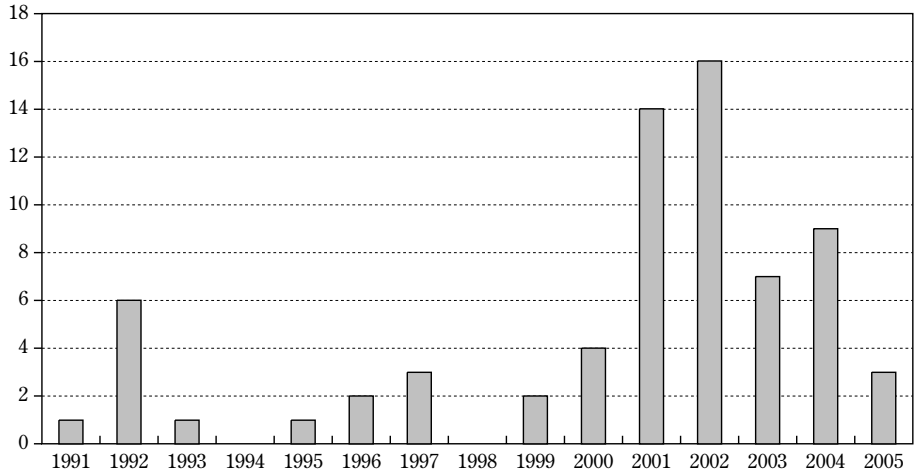
According to CzechInvest, the number of the foreign-capital enterprises being established from 1993 until the 3rd quarter of 2004 reached about 55,000. The manufacturing sector saw a particularly high proportional increase in foreign-capital among the 1200 companies in this sector. Czech Invest points out that 65-70% of the amount exported by the Czech machine industry sector is by foreign-capital enterprises[7].

In fact, there has been somewhat of a Japanese FDI boom in the Czech Republic recently, with 25 Japanese enterprises making investments over the two years (2001-2002) just prior to the country's accession to the EU (Figure 2). As mentioned, compared to FDI of other countries, Japanese FDI has been mainly concentrated on the automobile and electrical machinery sectors[8]. For Japanese FDI alone (volume base, 1990-2002), there is 58% in the automobile sector, 23% in electrical machinery, 2% in other machinery and metals, and 2% in textiles (CzechInvest) (Figure 3).

3. 3 Behavior of Japanese Investors in the Czech Republic[9]

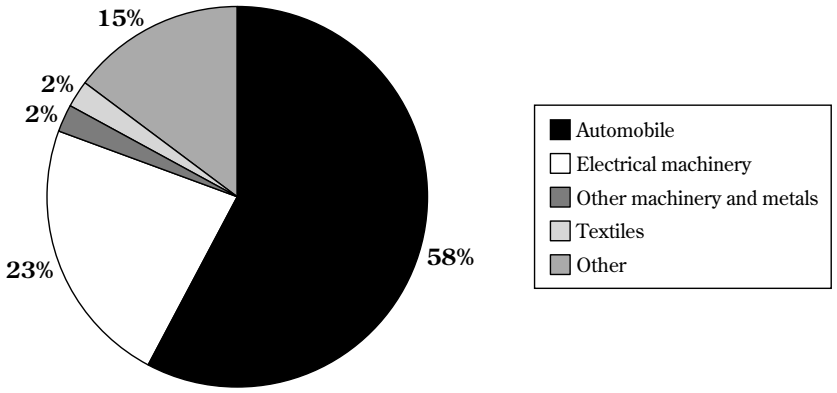
The frontier group for Japanese FDI consists of three major investors: Matsushita Electronic Components, Showa Aluminum and Toray Textile. Their role has been and remains very important for encouraging subsequent investors, most notably Toyota and its affiliates. Matsushita had a key role in pressing the Czech government to introduce investment incentive policies and also advised other Japanese companies considering investment here. Matsushita

Figure 2. Number of Japansese Investors in CZ



Source) CzechInvest, 2006.

Figure 3. Japanese investment by volume and sector, 2002



Source) CzechInvest, 2003.

established itself in Pilsen city in 1996 with a cathode-ray tube television production facility in which 1,700 people are presently employed. The company's production has been expanding yearly, along with the establishment of its R&D department in 1999 and the new production of plasma televisions in 2004. Though Matsushita invested in the Czech Republic before the FDI incentives had been introduced, Matsushita now receives not only the normal incentives but also newly introduced incentives for R&D[10]. When the Czech Republic joined the EU, Matsushita decided to close its UK factory and shift the center of its European production and R&D there due to the country's reduced wage costs and liberal framework for manufacturers. The production shift from the UK to the Czech Republic presents an interesting case for a study on the greenfield investment lifecycle[11].

The recent boom of Japanese FDI in the Czech Republic results primarily from the

investment of Toyota in Kolin city. Toyota is famous for its unique production system, known as the Toyota Production System (TPS), which is actually composed of two elements: its "just-in-time system" and its "autonomation system"[12].

From the database of CzechInvest, among the 58 Japanese companies that have invested in the Czech Republic as of 2004, there are 35 automobile companies, which have a total stock investment of $1.77 billion and total employees numbering 9,000. TPCA (Toyota Peugeot Citroen Automobile) alone has invested $850 million and employs 3000 workers, while its biggest affiliate, Denso, has invested $254 million and employs 950 workers[13].

In general, 30,000 parts are needed to assemble an automobile, so the industry needs a number of suppliers. Consequently, the investment of one large automobile maker such as Toyota results in a high generation of employment as well as technology transfers and increased exports, which all contribute to a higher GDP. Therefore, for an emerging country, such as the Czech Republic, the investment of a large automobile company can contribute greatly to its economic development[14].

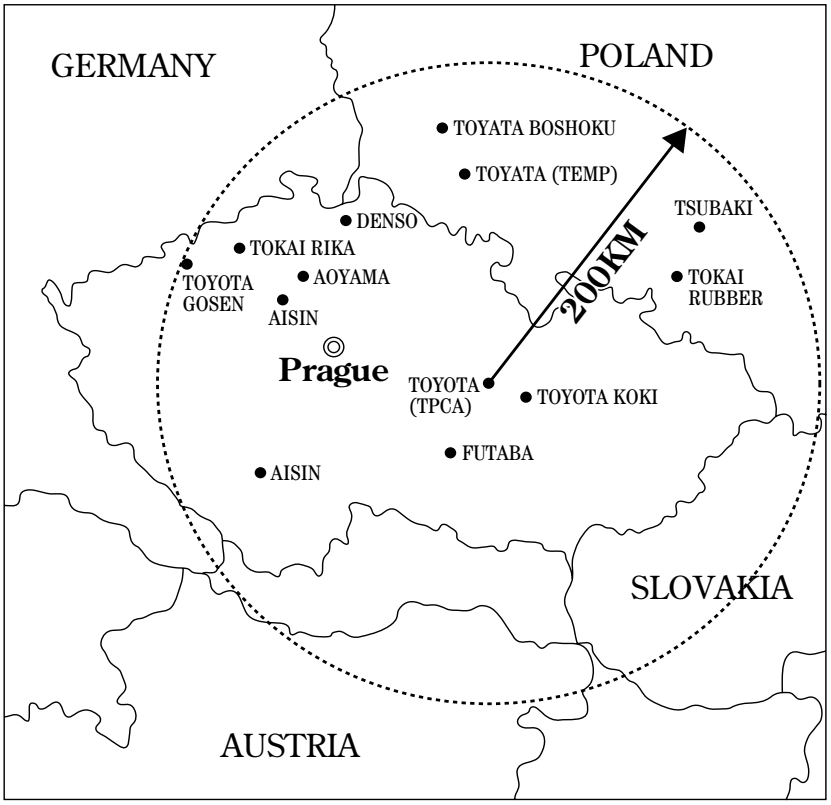
3. 4 Background to Toyota's Behavior in the Czech Republic

Toyota is now aiming to increase its worldwide production in the near future to 10 million cars a year, which will exceed the production of General Motors allowing it to become the world's largest car maker. In this context, the company is aiming to increase its present 3.7% share (as in 2003) of the European market. As part of the strategy, it constructed a new plant in France in 1998, where it has been producing the Yaris, a new compact car. After succession of the sale of the Yaris, Toyota stepped into the second stage of its strategy for expansion in the European market in 2001 with the start of construction of a new joint-venture plant in the Czech Republic with the Peugeot Group for the production of small cars (with each side having 50% equity stake). The facility began operations in 2005 as planned. Toyota is now planning for close cooperation between its existing UK and Turkish plants and the French and Czech plants.

In order to enhance distribution and production efficiency, Toyota is also creating a wide-area supply network for components within the EU, with distribution centers located at four different locations. In 2003, the company also started construction of a new plant in Poland which will produce major components such as engines and steering wheels for its French and Czech plants.

At present, components manufacturers, mainly Toyota's affiliates, are actively moving towards investment in the Czech Republic and Poland, largely due to the influence of Toyota. As the number of units produced in Europe increases, there will be a need for a higher level concentration of components and raw material producers, such as that which is required in the American market. Toyota's partnership with the Peugeot Group will certainly present demand for components while at the same time Toyota's affiliated components manufacturers will be given new business opportunities in supplying their products to the Peugeot Group and other automobile companies (Figure 4)[15].

Figure 4. TPCA and its main affiliates



Source) Author's illustration.

We should review the history of Toyota's overseas investment strategies to observe the behavior of Toyota and his affiliates in CEE. In particular, we see "the lessons" of the investment in the USA, the company decided to go ahead with its joint venture in 1984 with GM, named NUMMI (New United Motor Manufacturing). Through this joint venture, Toyota learned two important lessons about adopting the TPS abroad; the first relating to supplier relations, the second to trade union relations.

The TPS aims to increase production efficiency and eliminate waste. As mentioned, the fundamental component of the TPS is the "just-in-time" production system where necessary items are received just in time as they are needed in the production line. In other words, every manufacturing process produces only the necessary parts in the necessary quantity at the exact time needed. Therefore, to eliminate unnecessary inventories, affiliate suppliers must be located near the Toyota factories and there must be a close exchange of production information. In NUMMI, Toyota was not accompanied by some of its major suppliers. It had to negotiate with the American suppliers where the business relationship was not one of TPS style but of independence and basically short-term transactions. It is said that at the first stage Toyota had trouble receiving the items it needed to satisfy its just-in-time system.

The second problem that Toyota faced was labor management, especially the labor policy of the United Auto Workers (UAW), which is a very strong and influential trade union in the USA. As mentioned above, one feature of the TPS is elimination of all waste, and therefore Toyota introduced high-performance labor-saving machinery and technology and manpower-saving methods by developing and training highly multi-skilled workers who can be responsible for handling several processes. The UAW, however, restricts multi-tasking and stipulates that workers have a single responsibility, such as lathe worker, press worker and so on (there are around 100 such categories). As these "single-skilled" workers generally cannot be allowed to handle other processes without the permission of the UAW, it is difficult to form the flexible framework that the TPS requires. In the case of NUMMI, Toyota had to accept that its workers belonged to UAW because of its partnership with GM[16].

After the experiences of NUMMI in the USA, Toyota has been accompanied by its main suppliers and other affiliated companies where it sets up new operations, as in the case in the Czech Republic with TPCA[17]. Therefore we need research the lesson of NUMMI for understanding the behavior of Toyota and its affiliates in the Slavic countries.

On the other hand, Toyota's affiliates may need to find other clients and decrease their share of supply to Toyota gradually to survive themselves in CEE. Because they cannot survive depend solely on TPCA[18]. For example, Denso (Czech) now supplies more than 50% of its products to German automobile companies, and Koito and Aisan also have German or French clients. Toyota's affiliates must keep a good relationship with Toyota, and at the same time they must find new sound clients within the EU.

3. 5 Implications of TPCA

In general, FDI can help the recipient country conduct economic activities more efficiency and facilitate new R&D, production technology, management expertise and so on. Moreover, FDI can increase competition in individual sectors and show local firms how to meet that competition. The current Czech government of the Social Democrats has therefore introduced FDI incentives to enhance economic growth and support corporate restructuring. In addition to these contributions, Toyota's investment in TPCA presents two other implications: corporate governance and production system architecture.

By nature, Japanese companies tend to place importance on stake-holder based corporate governance rather than stockholder based. In fact, they tend to keep out the power of strong outside stockholders and labor unions.

In the Czech Republic the enterprise category of Japanese-capitalized companies is almost always the limited liability type due to the above mentioned reasons. TPCA is an exception; it is a joint-stock company in which Toyota and the Peugeot Group each have a 50% equity stake. The corporate governance of TPCA is interesting in that Peugeot is in charge of the financial department and parts purchasing department, while Toyota is in charge of the production department. The TPCA president is from Toyota, and the vice president is from Peugeot.

The steering committee is the supreme decision-making board which is attended by not only top TPCA management but also executive directors of Toyota in Japan and Peugeot in France through TV satellite.

This is the second case in Toyota's history that the company and its affiliates face a situation quite different from the standard relationship within the keiretsu. As mentioned, the fundamental component of the TPS is the just-in-time system which is based on close relationships with affiliate companies. Therefore it is quite significant that Peugeot has taken charge of the purchasing department (Table 8).

Table 8. Comparison of Toyota and Peugeot in TPCA

	Toyota	Peugeot
Capital	50%	50%
Charge	R&D, Production	Finance, Procurement
Relation with affiliates	Long-term(Keiretsu), Long-term contract	Short-term cost base, Short-term cost base contract
Architecture of production	Integral	Module

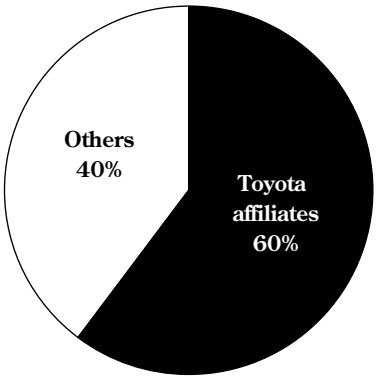
Source) Author's illustration based on the interview with Mr. Enomoto, the former president of TPCA.

Though the TPS is an effective cost-saving system and takes into account the long-term relationship with suppliers, Peugeot has a quite strict budget constraint policy based on the cost-plus method. During the open tender for parts at the first stage of TPCA operations, Toyota affiliates faced difficulties due to the severe cost-base criteria presented at the Peugeot headquarters in Paris. Some was beaten out by their European counterparts. For example, one of the biggest Toyota affiliates, Denso, a producer of car air-conditioners, was beaten for the bid by a French company. It is the first time in Toyota's history that its car will be fitted with a non-Japanese made air-conditioner. What is more, Koito in the Czech Republic which is also a main affiliate of Toyota, at the present, has no business with TPCA[19].

In standard cases, the share of parts purchased from Toyota's affiliates for its facilities in the USA and other countries is about 60% of all purchases. But in the case of TPCA, the share of parts purchased from the affiliates is only one-third. The executives of Toyota never expected this outcome[20]. Apparently, the Toyota side makes strong efforts to persuade the Peugeot side into accepting their production plans each time, and consequently it takes more time to come to agreements here compared to Toyota's other foreign plants (see Figure 5, Figure 6).

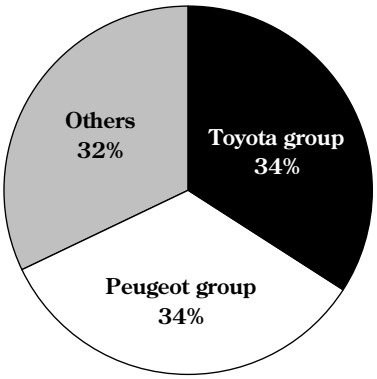
The second implication of TPCA is the question of whether unique Japanese production architecture, such as represented by the TPS, is adaptable or not in the CEE. As discussed by Fujimoto, when we evaluate the Japanese production system, namely the TPS, "architecture " is the basic design philosophy for products, organizations and various processes, and is one approach for assessing the strength and weakness of a certain industry or company. He explains the conceptual framework of architecture is a way of looking at an industry, focusing on design information embodied in products (Fujimoto, 1999 and 2005).

Figure 5. Source and Share of Parts Purchased in Toyota's Standard



Source) Author's illustration based on the interview with TPCA.

Figure 6. Source and Share of Parts Purchased in TPCA



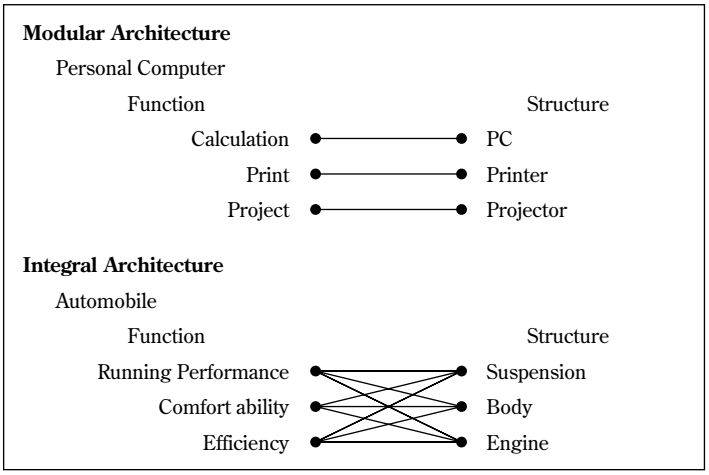
Source) Author's illustration based on the interview with TPCA.

Before proceeding with a discussion on integral and modular architecture, we should briefly give a few more details about the "just-in-time" production system. As mentioned, the core concept behind the system is increasing production efficiency and decreasing waste. To fulfill this objective, Toyota and its affiliates promote an ongoing workplace campaign called "kaizen," which aims to improve the production process in all areas. Under kaizen, every process must be continually improved through the continuous efforts of all employees, which means the implicit character of the campaign is not easy to outline in a standard manual and it takes time for employees to master. Moreover, in the TPS, one operator takes care of various machines to keep the processes simultaneously flowing. In other words, the "single-skilled" workers that are standard in the USA and Europe are in general not suitable for the TPS.

The TPS is a typical categorization of an "integral architecture" production system, which is in crucial need of implicit know-how and common knowledge among employees[21]. In contrast, "modular architecture" provides standardized interfaces linking different parts and modules. Thus, one can produce various products by selecting and putting together existing parts as long as they are compatible with these interfaces. "Open architecture" is a kind of modular architecture having industry-wide standardized interfaces, under which parts and modules can be gathered across corporate borders[22]. These kinds of strengths are best demonstrated in a product with "open modular" architecture, for which the overall architecture is pre-designed in a way to eliminate the need of coordinating part designs so that parts and business segments can be flexibly mobilized for mass production or modification (Figure 7, Figure 8).

It would be interesting to research which type of architecture is optimal for the Czech Republic, but unfortunately we do not have enough data as yet, as TPCA started operations just in 2005. It is possible, however, to point out that the Volkswagen group introduced a modular type production system at Skoda in 1996 – the first in Europe – and also requested its suppliers

Figure 7. Architecture and Coordination



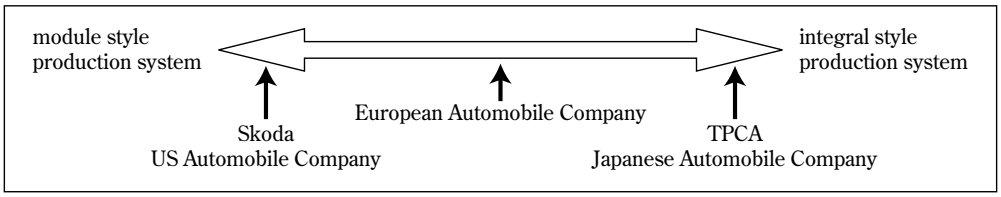
Source) Complied by Fujimoto (2005).

Figure 8. Matrix of Integlral and Moguler Architecture

	Integral	Moguler
Closed	Advanced sector of Japan Automobile Game soft, High value-added TV, Video	Machine tool
Open		Advanced sector of US and China PC Internet Financial tool

Source) Complied by Fujimoto (2005).

Figure 9. Forms of Production Architecture Used by Automobile Makers



Source) Author's illustration.

to develop a modular operating system. In the Czech Republic there are typically two types of production architecture in the automobile sector: the open-modular type of Skoda and the closed-integral type of TPCA[23] (Figure 9).

It might be too early to evaluate the implication of Toyota's and its affiliates' investment in TPCA. However, as mentioned above, the impact of the Toyota group from the perspective of corporate culture will have an influence in the Czech Republic. We should point out the vitality

of Toyota from the point of the decision to have a joint venture with Peugeot. Toyota has already long established itself as a company with a famously sound management and product system. While generally it is difficult to integrate businesses having quite different corporate cultures, in order to evolve, Toyota is intending to adapt European corporate culture, and in relation to this, Toyota regards its investment in the Czech Republic as the first important step into the Slavic world[24].

4. Conclusion

Recently, the economic performance of the Czech Republic has been improving soundly, with the indicators of production, turnover and financial position showing good progress from 2000 onward. In the 1990s, the previous government headed by Klaus neglected industrial policy and insisted officially on market-oriented economic policy based on the idea of the "invisible hand," but, at the same time it introduced another "invisible hands" shrewdly and prudentially relating to corporate restructuring through KOB and the commercial banks, which helped the former state enterprises survive in spite of their inefficiency. Due to such this "hidden" policy, the corporate restructure of the Czech manufacturing sector lagged behind that of the other CEE.

The present Social Democrat government initiated a new policy that introduced direct-sale privatization and FDI incentives among other measures relating to industrial policy. Largely due to an inflow of FDI over the past few years, corporate financial standings and production have been improving to date, particularly in the automobile and electrical machinery and electronics sectors, both of which play a major role in the national economy.

In 2003, Toyota announced its investment into the Czech Republic, and since beginning operations the company and its affiliates have had a solid positive effect on the Czech economy. At the same time, Toyota has introduced its unique production system, which includes integrated architecture. It is too early to conclude whether the TPS is adaptable to Slavic society or not. However, for the present, the Czech Republic will have the opportunity to experience the TPS in TPCA and at the same time to experience the modular method used at Skoda. In future, when data becomes available, it would be interesting to compare Toyota's experience in the Czech Republic to that in Poland and Russia.

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Notes

1) See Ikemoto and Matsuzawa (2004).
2) See Wada (2002).
3) This is the comment of Seiji Nakagoshi, former president of Denso (Czech).
4) Wada, *ibid.*
5) In 1998, following the monetary crisis of 1997, the Social Democrat Party replaced the previous cabinet and shifted to a strategy that placed importance on industrial policy. The same year, invest-

ment incentive programs were introduced, which provided for 10-year tax holidays, duty free import of equipment, job creation grants, site development support and the establishment of CzechInvest, a government agency that promotes investment and business development.

6) Toyota also established a transmission-producing center in the south of Poland.

7) The general trends of FDI based on CzechInvest are as follows. The share of FDI inflows by country from 1993 to 2004 is as follows: Germany 31%, the Netherlands 13%, Austria 11%, France 8%, USA 7%, Belgium 6%, Switzerland 5%, UK 4%, and Japan 2%. Looking at the share of FDI by sector in the same period, the manufacturing industry accounts for 33%, the financial sector 20%, the transportation and communication sector 14%, the commerce, hotel and restaurant sector 13%, the real estate sector 9%, and the electricity, gas and water service sector 6%. We should point out that the financial sector was the leading recipient of FDI until 2002, but since 2003 the manufacturing industry took the leading position due to the rapid growth of greenfield investment, which is the common type for Japanese investors. The total amount of FDI in 2004 was € 3586 million, with the totals by country being € 850 million from the Netherlands, € 700 million from Germany, € 361 million from Austria, € 227 million from the USA, € 212 million from Japan, € 139 million from France, € 121 million from Sweden and € 115 million from Switzerland. FDI by sector over the same period was € 11.8 billion in the manufacturing sector, € 5.18 billion in the financial sector, € 5.17 billion in the commerce, hotel and restaurant sector, € 4.12 billion in the real estate sector and € 2.42 billion in the electricity, gas and water service sector. These figures indicate that the FDI from Japan has been increasing and that inflows to the manufacturing sector are rapidly growing.

8) When we look at the overall FDI per sector by all countries (volume base, 1990-1999), there is 16% in the financial sector, 14% in trade and commerce, 6% in telecommunications, 6% in the automobile sector and 6% in food processing. It is easy understanding how Japanese investors are interested in the automobile and electrical machinery sectors.

9) I would like to thank the companies I visited (Matsushita, TPCA, Showa-alumi, Aisan, Toray, Denso, Koito, Matsushita Communication and Onanba among others in 2003, 2004, 2005, 2006).

10) For details on FDI incentives in the Czech Republic, see the CzechInvest website at www.czechinvest.org.

11) Matsushita UK took care of finding new jobs for the employees of the factory in corporate with the local government, in order to minimize the troubles for moving his production center into the Czech Republic. Mr. Ashahi, the former president of Matsushita Pilsen, said that the lifecycle of this case is 25-30 years.

12) The just-in-time system supplies only the necessary items in the necessary quantities at the necessary time. “Autonomation” is the addition of an element of human intelligence to automated machinery. From the point of FDI, the former is the crucial element.

13) See website of CzechInvest: http://www.czechinvest.org.

14) In fact, the former CEO of CzechInvest, Martin Jahn, became deputy prime minister and was put in charge of foreign economic affairs in light of his achievement to help facilitate the success of the TPCA investment and other automobile investors.

15) Other reasons for their marriage are existing as follows. For Toyota and other Japanese car makers it is not easy to move into the European compact car market. For example, CO_2 emission regulations in the EU are quite strict compared with Japan. These and other local market conditions made partnering with a European manufacturer a practical choice for Toyota. For the Peugeot Group, the partnership offers a good opportunity to gain understanding of Toyota's unique production system (TPS). In the initial stages, production targets for the plant are 100,000 cars for Toyota and 200,000 cars for Peugeot, for a total of 300,000.
16) Since the establishment of NUMMI, Toyota has independently set up several factories in the USA in which the workers are not unionized.
17) These affiliated companies are called keiretsu. The main keiretsu are Denso, Aisin, Toyoda Gousei, Koito, Aisan, Aoyama, Fuji Koki, Futaba, Koyo Seiko, Tokai Rika Toyoda Machine Works, Toyoda Tsusho and others.
18) Planned production of TPCA is 300,000 cars per year, with the Toyota side producing 100,000 and the Peugeot-Citroen side producing 200,000. For suppliers, optimal production scale is 200,000-300,000 cars per year.
19) Interview with Denso and Koito in March 2006.
20) This comment was made in the author's interview with Masatake Enomoto, the former president of TPCA, at TPCA on 16 March 2005.
21) Japanese companies still remain competitive in such fields as automobiles, in which integrating and coordinating ability directly leads to product competitiveness.
22) American companies tend to have superiority in systemization, establishment of de-facto industry-wide standards and flexibility in reorganizing business structures.
23) We should point out that one of Toyota's main affiliates, Aisan, opened a plant in the Czech town of Louny in 2000 and succeeded in introducing the TPS there. Many Toyota affiliates have since come to Aisan to learn about its adaptation of the system. On the other hand, some affiliates have had difficulties in introducing Toyota-style management in the Czech Republic. Though it is very difficult to access the real situation of TPCA, the management from Toyota is likely to be satisfied in quality of Czech employees who, in general, learned TPS method faster than Toyota management expected. TPCA, Denso and other affiliates established the training center or department for the Czech employees.
24) Toyota also invested in a new facility in Russia in April 2005, which is forecast to start operations in 2007.

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