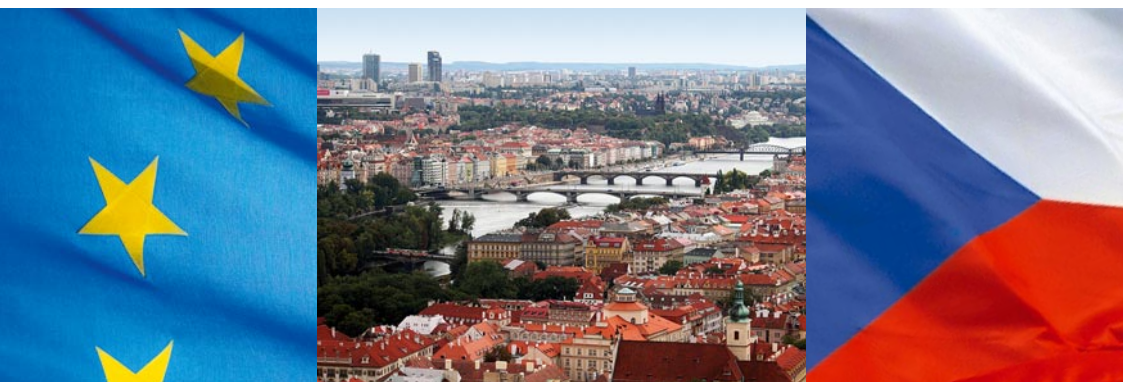# CZECH REPUBLIC 2007

The Beginning of Fiscal Reform

An Economic Survey
Produced by

CERGE-EI

Center for Economic Research and Graduate Education of Charles University
& Economics Institute of the Academy of Sciences of the Czech Republic

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REPUBLIC

CERGE-EI

CZECH REPUBLIC 2007
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I. GENERAL INFORMATION

I.1 The Czech Republic – An Economic Summary of 2006

The year 2006 can be completely characterized by just two words: election year. To be more precise, the first half of the year was affected by the election campaign that even had an impact on legislation, while the second half of the year was just the bitter aftermath with no clear winner. From the point of view of the political economy related to a reform, the year 2006 was not only completely lost but even was a step backwards. The important dynamics of the whole process was the erroneous expectation that one of the parties would defeat the others by a substantial margin. As we discuss in Section II, the exact tie of the elections in the Lower House (of the Parliament) and a particular division of the seats among parties led to a stalemate in the election for the post of chair of the Lower House. For the whole second half of 2006 the country was governed by governments that did not receive a confidence vote in the Senate and hence had no real political mandate to rule.

The Czech economy performed better than predicted in 2006 with GDP growth at 6.4%; 2007 should not be much different. EU membership and further integration into international markets turned out to be an additional push accompanied by a buoyant domestic demand. While this is better than most neighboring countries, Latvia and Estonia were able to reap the benefits of double digit growth, although we can detect signals of overheating in these countries.

Other figures than GDP do not show much improvement, especially the budget deficit. The only exception was the labor market. The Czech Republic witnessed a continued decrease in unemployment rate from 9.5% in December 2004 to 8.9% in December 2005 and 7.7% in December 2006, with a tendency to decrease further. While we witnessed strong economic growth and the unemployment rate has declined fairly rapidly, there are still many rigidities in the labor market and a potential mismatch between demand and supply that can result in pressure on wages.

Foreign firms still consider the Czech economy to be highly attractive as it is consistently ranked high in terms of FDI attractiveness. FDI fluctuates substantially, it peaked from 5.0 bln. USD in 2004 to a peak of 11.7 bln. in 2005, falling back to 6.0 bln. USD in 2006. Although increased international competition counterbalanced the inflationary pressures, inflation rate accelerated from 1.9% in 2005 to 2.5% in 2006 and the central bank responded twice in 2006 with increases in all the major rates.

Unfortunately, as we indicated, the rapid growth and relatively lower inflation were accompanied with increased fiscal expansion. While 2005 had witnessed a deficit of public expenditure at an alarming magnitude of 2.9% (recall that the growth was 6.5%), legislators completely undermined any chances for real improvement after the elections. Reforms were shelved and new ways of increasing public spending were implemented in new laws. Both camps (the Social and Civic Democratic Parties) envisaged that the winner

would take charge and abolish these new laws. The 6-month period before the new laws were supposed to take effect seemed long enough for the winner to change whatever would be necessary – but the election ended with a tie – 100 seats against 100 seats – which surprised everybody (but perhaps it should not have). Thus, the promised moderate fiscal reforms were not only forgotten but reversed in 2006. Given the fact that the Czech government was not able to fulfill its reform plans, the fulfillment of the fiscal criterion in 2006 for Euro adoption was sheer luck due unexpectedly high economic growth (the original estimates were well below 6%).

Only recently the government has introduced some measures to curb the deficit, mostly aimed at increasing revenues rather than cutting spending.

To summarize, the entry into the European Union was a success and the economy benefited from its strategic position in the region as well as from previous business reforms. Yet, we can clearly document the negative effect of an irresponsible short-termist election policy with a large structural deficit and a silent postponement of the adoption of the Euro as a consequence. Now, the most optimistic scenarios mention the entrance to the Euro zone in 2012.

I.2 History and Geography

The first signs of people living in the area of the present Czech Republic are from 1.6–1.7 million years ago and were found near Beroun in Central Bohemia. The first Slavonic people came to the region in the 5th and 6th centuries. The first written references to the Czechs, Prague, and regions of Bohemia appeared in the 8th and 9th centuries. In about the year 870, the Czech prince Bořivoj was mentioned for the first time in writing. He came from Prague and belonged to the house of Přemysl, which later became the royal dynasty of Bohemia. This dynasty governed the Czech kingdom until 1306. During the reign of the House of Luxembourg (1310–1436), Bohemia was the center of the Holy West Roman Empire of German People, and Prague became one of the cultural centers of Europe. A short period of elected kings ended in 1526 when the Czech kingdom (Bohemia, Moravia, and Silesia) became a part of Austria, and later

the Austro-Hungarian monarchy, where it remained until the 20th century.

In 1918, after World War I, Czechoslovakia emerged from the ruins of the Austro-Hungarian monarchy as a modern democratic state. Czechoslovakia consisted of Bohemia, Moravia, Slovakia and Ruthenia (today a part of Ukraine). In 1939, Slovakia separated from Czechoslovakia and the Czech part of the country was occupied by the German army and incorporated as a special autonomous state into the German Empire. In 1945, Czechoslovakia was liberated by the Soviet and American armies. The Czechoslovak state was restored without Ruthenia, which joined the Soviet Union.

In February 1948, the Communist Party gained power (in a formal constitutional way), and Czechoslovakia was under the Soviet sphere of influence until 1989. After the "Velvet Revolution" in 1989, a democratic regime was restored.

In response to the Slovak desire for greater self-determination, a federal constitution was introduced in 1968. Completely controlled by the Communist party, the Czechoslovak Federation had not satisfied the legitimate aspirations of the Slovak people. From 1990 on, Czech and Slovak political leaders negotiated the future form of the federation. After two years of unsuccessful negotiations and following the 1992 parliament elections, the country was peacefully divided into the Czech Republic and the Slovak Republic on January 1, 1993. In 1999, the Czech Republic joined NATO; it became an EU member in May 2004.

In terms of its area (76,867 square kilometers), the Czech Republic ranks among the smaller European countries. The Czech Republic shares borders with Germany, Austria, the Slovak Republic and Poland.

Historical milestones of the Czech Lands in the 20th Century

1918   After the collapse of the Austro-Hungarian monarchy, the First Czechoslovak Republic is established as a joint state of Czechs and Slovaks.

1920   A democratic constitution is adopted.

1938   As a result of the Munich Agreement and the consequent Vienna Award, parts of Czechoslovakia are occupied by Germany and Hungary; the second Republic, Czecho-Slovakia, is established with an extended Slovak autonomy.

1939 The rest of the Czech territory is occupied by Germany and an independent Slovak state is established.

1945 The Czech lands are liberated and the Czechoslovak Republic is restored.

1948 Communists take over the country, marking the beginning of a 40-year totalitarian regime.

1968 A reformist movement in the Communist Party results in the Prague Spring (easing of the totalitarian course). The reforms are reversed by the invasion of Warsaw Pact armies in August and the resulting process of normalization. A new federal constitution is adopted.

1989 The Velvet Revolution ends the totalitarian regime.

1990 The first democratic parliamentary election in 42 years is held.

1991 The last Soviet military troops leave the country.

1992 Czechoslovakia is separated, and the Czech and Slovak Republics are established on January 1, 1993.

1999 On March 12, the Czech Republic joins NATO.

2004 In May 2004, the Czech Republic joins the EU.

I.3 Demography

Birth rate

Czech demographic dynamics displayed a positive trend in 2006. After more than a decade, a positive natural population increase was registered as the number of births prevailed over the number of deaths for the first time since 1993 (see Table I.3.1). The number of deaths has been moderately decreasing over the last couple of years, but the main factor contributing to the positive natural increase is an increase in live births. There have been 105,800 live births which topped the previous year's amount by 3600 and is the highest value since 1995, which was the first year when the overall amount of live births dropped below 100,000.

The birth rate growth corresponds to a recent fertility increase, rising to 1.33 live births per one woman in reproductive age. However, the fertility rate remains at a critically low level and is not sufficient for the reproduction of the population. Moreover,

Table I.3.1 Vital statistics in the Czech Republic

	1990	1995	2000	2001	2002	2003	2004	2005	2006
Population (mil.)*	10,363	10,331	10,273	10,224	10,201	10,202	10,207	10,234	10,267
Live births	130,564	96,097	90,910	90,715	92,786	93,685	97,664	102,211	105,831
Deaths	129,166	117,913	109,001	107,755	108,243	111,288	107,177	107,938	104,441
Natural increase	1,398	-21,816	-18,091	-17,040	-15,457	-17,603	-9,513	-5,727	1,390

Source: Czech Statistical Office
* Mid-year.

Table I.3.2 Fertility rate and average age of a woman giving birth

	1995	2000	2001	2002	2003	2004	2005	2006
Fertility rate (births per 1,000 females)	1.28	1.14	1.15	1.17	1.18	1.23	1.28	1.33
Average age of a woman giving birth	25.8	27.2	27.5	27.8	28.1	28.3	28.6	28.9
Average age of a woman giving first birth	23.3	24.9	25.3	25.6	25.9	26.3	26.6	26.9
Net reproduction rate*	0.61	0.55	0.55	0.56	0.57	0.59	0.62	0.64

Source: Czech Statistical Office
* Expected number of daughters per new-born prospective mother if she passed through her lifetime conforming to the age-specific fertility and mortality rates of a given year.

the average age of a woman giving birth increased further to 28.9 years of age (see Table I.3.2). Overall, this positive birth rate dynamic is expected to be temporary and is driven predominantly by a favorable population structure as the generation of strong population cohorts born during 1970s baby boom starts setting up families. These delayed decisions to have children may be caused by a general shift in preferences, greater career prospects for women and/or the unavailability of separate housing for young families.

Age structure of the population

Despite the increase in birth rate, the Czech demographic outlook is not optimistic. Although the total population shrinkage from 1994–2002 seems to have passed, the share of people above 65 continues to follow an increasing trend (see Table I.3.3). This is an outcome of a low birth rate combined with population aging due to steadily increasing life expectancy. As a consequence, the average age of a Czech inhabitant in 2006 reached 40 years for the first time in history. On the same note, it is the first time when the population share of people aged 65 and above is slightly higher than the fraction of children aged 15 and below, creating a reverse age pyramid. The present population share of children aged 0–14 is 14.4% of the total population, which is almost 8 percentage points smaller than in 1975 and 4 percentage points smaller than in 1995. Given the demographic structure, the trend of population aging is likely to continue in

Table I.3.3 Age structure of the population

	2000	2001	2002	2003	2004	2005	2006
0–14	16.2	15.9	15.6	15.2	14.9	14.6	14.4
15–24	15.0	14.6	14.1	13.8	13.4	13.2	13.1
25–49	36.3	36.4	36.5	36.7	36.9	36.9	36.9
50–64	18.7	19.3	19.9	20.4	20.8	21.0	21.2
65+	13.9	13.8	13.9	13.9	14.0	14.2	14.4
Average Age	38.8	39.0	39.1	39.3	39.5	39.8	40.0
Index of Aging*	85.5	87.0	89.0	92.0	94.0	97.0	100.0
Old dependency ratio**	19.9	19.6	19.7	19.6	19.7	20.0	20.2

Source: Czech Statistical Office
* Number of people over 65 per 100 children aged 0–14.
** Ratio of population 65+ over people 15–64.

the future as the projections of the Czech Statistical Office indicate an increase in the population share of people aged 65 and above to up to 20% in the medium-time horizon (by 2020). Similarly, the old-age dependency ratio (the ratio of people aged 65 and above to the working-age population) now exceeds 20% and is bound to exceed the 30% threshold during the next decade. This aspect of demographic development calls for a substantial reform of the Czech social security system, since it will inevitably become unsustainable in the future in its current form.

Migration

Although a positive natural population increase was recorded in 2006, the overall population growth is still mainly driven by migration. In 2006, the registered net immigration was equal to 34,700 people. The number of immigrants has risen to 68,200 (almost 8,000 more than the previous year) and the number of emigrants has increased to 33,500 (almost 10,000 more than the previous year). However, the emigration outflow may be severely underestimated since many Czechs do not report when they move abroad

and remain in the population count. The total population increase of 36,100 people is the highest since 1993 and had remained positive for four consecutive years. Overall, the total population of the Czech Republic was 10,287,200 by the end of 2006.

The structure of immigrants according to citizenship is similar to previous years. The highest fraction of net migration is generated by Ukraine (37.4%) followed by Slovakia (17.7%) and Vietnam (11.7%). The Russian Federation (6.4%), Moldova (3.3%) and Mongolia (3.1%) complete the list of countries with a share of net migration above 3%. The overall number of foreigners legally residing in the Czech Republic increased to 323,300, which represents 3.1% of the total population.

Given the low fertility (despite the temporary increase), targeted immigration is a key channel of preventing population shrinkage and increasing the share of productive population. Issues such as the simplification of the administration of working permits, improving corresponding legislature, targeting specific countries and attracting skilled and young workforce remain the main challenges of policymaking for the future.

Table I.3.4 Migration

	1995	2000	2001	2002	2003	2004	2005	2006
Immigration	10,540	7,802	12,918	44,679	60,015	53,453	60,294	68,183
Emigration	541	1,263	21,469	32,389	34,226	34,818	24,065	33,463
Net migration	9,999	6,539	-8,551	12,290	25,789	18,635	36,229	34,720
Natural increase	-21,816	-18,091	-17,040	-15,457	-17,603	-9,513	-5,727	1,390
Total population increase	-11,817	-11,552	-25,591	-3,167	8,186	9,122	30,502	36,110

Source: Czech Statistical Office

II. POLITICAL AND INSTITUTIONAL DEVELOPMENT

II.1 Constitutional System

The constitutional system of the Czech Republic consists of the Parliament and the President. The Parliament has two chambers: the Lower House (*Poslanecká sněmovna*) and the Upper House (*Senát*). The President is elected by both Houses of Parliament for a five-year term and has limited authorities and mostly representative responsibilities. The President appoints the Prime Minister and the members of the government, the governor of the Central Bank, the ambassadors and the military Chief of Staff and signs laws. The President can return laws to the Lower House, but the presidential veto can be overridden by an absolute majority of all the members of the Lower House. The current president, Václav Klaus, was elected in February 2003. He replaced Václav Havel, the leader of the Velvet Revolution, who served as the Czechoslovak president from 1989 to 1992 and then as the Czech president from 1993 to 2003. At the time of the writing of this yearbook, the Czech Republic was getting ready for the next presidential election.

The Lower House is the most important legislative body. It has the power to pass laws by a simple majority, to cast a no-confidence vote against the government, and to override a veto of the President and of the Upper House.

According to stipulations in the constitution, the Upper House has a limited legislative authority and is only authorized to act upon Lower House legislation. The Upper House has three options when faced with bills approved by the Lower House and must act within 30 days: accept by default (take no action), reject with a suspending veto, or suggest amendments. In the latter two instances, the Lower House can vote either to accept or reject the Upper House action by an absolute majority of all members of the Lower House. The Upper House can also initiate legislation. If the Lower House is dissolved, the Upper House assumes its functions until new elections are held.

II.2 Electoral System

The Lower House of the Parliament has 200 members elected for four-year terms. A proportional electoral system is used for the Lower House which discriminates against small parties: to enter the Lower House, a party has to attain at least 5% of the total number of valid votes cast nationally. The country is divided into eight voting districts and each party nominates an ordered list of candidates for the Lower House in each voting district.

In contrast, the Upper House of the Parliament uses a majority system (plurality run-off) to elect its 81 members with one representative for each constituency. Upper House members are elected for six years with a periodic replacement schedule in which 27 members are elected every two years. Each

political party can nominate one candidate in each of the 81 constituencies. In addition, independent candidates can participate providing they submit a statement of support signed by at least 1,000 eligible voters from the relevant electoral constituency. A candidate is elected on the first ballot if he/she receives a simple majority of valid votes (at least 50% plus one vote). If no candidate receives a majority on the first ballot, then the two candidates who receive the most votes from the first ballot rerun on a second ballot, and the majority winner on the second ballot is elected.

Current Major Political Parties

The most important current political parties are listed below and ordered according to their positions on the traditional "left-right" ideological spectrum.

***Czech and Moravian Communist Party** (Komunistická strana Čech a Moravy, KSČM) – an extreme leftist unreformed communist party; opposes Czech membership in NATO and openly advocates the return of the pre-1989 regime; successor to the former Communist Party of Czechoslovakia, which was founded in 1921; has had stable representation since 1989. Chair: Vojtěch Filip.*

***Czech Social Democratic Party** (Česká strana sociálně demokratická, ČSSD) – a left-centrist party of traditional European social-democratic orientation; supports membership of the Czech Republic in NATO and the EU; successor to the former Czechoslovak Social Democratic Party, which was founded in 1878 and forced to merge with the Communist Party in 1948; established a minority government in 1998 and a coalition government in 2002. Chair: Jiří Paroubek.*

***Green Party** (Strana zelených, SZ) – a centrist party; established in 1989,but a newcomer to the Parliament in 2006 (aside from Latvia, the only Green Party in Parliament in a post-communist country); advocates environmental taxes, energy reform, health and social security reforms; aims at deeper European integration and stands against U.S. dominance in NATO. Chair: Martin Bursík.*

***Christian and Democratic Union – Czechoslovak People's Party** (Křesťanská a demokratická unie-Československá strana lidová, KDU-ČSL) – a centrist party of Christian-democratic orientation represented in the government in 1990–1998 and since 2002; fiscally conservative advocate of a "social market economy"; opposes the recently adopted same-sex union bill; strongly supports Czech membership in NATO and in the EU. Chair: Jiří Čunek.*

***Civic Democratic Party** (Občanská demokratická strana, ODS) – a right-wing conservative party; a dominating member of government coalitions in 1992–1997 and since 2006; under the leadership of Václav Klaus in the 1990s, the driving force of economic and political transition; nowadays advocates a flat tax, healthcare reform, tuition at universities, and the consolidation of government deficits; strongly supports Czech membership in NATO; holds a "Euro-skeptic" attitude toward the EU and opposes the European Constitution. Chair: Mirek Topolánek.*

II.3 Elections of 2006 and their Consequences

Given the proportional system used for the Lower House, Czech governments are traditionally either coalition or minority governments, or both. The party system features the extreme-left Communist Party which typically controls the third-highest number of seats in the House. Executive cooperation with the Communists is a political impossibility among the other parties, so coalition building in the Czech Republic is notoriously hard. Even the Social Democrats still obey their 1995 commitment not to create an executive coalition with the unreformed Communists. The last four Lower House elections (1996, 1998, 2002, and 2006) have therefore led to fragile cabinets and produced an ongoing series of political stalemates. Two House elections in 2006 were the key for political developments in 2007.

The Lower House

Varying opinion polls during the electoral campaign for the Lower House indicated a close and fierce duel of the two major parties (ODS and ČSSD). There were two likely outcomes: an ODS-led, center-right coalition, or a minority government of ČSSD, explicitly or implicitly backed by the Communists.

The binary choice, scare tactics, as well as the campaign intensity raised the electoral turnout by 6.5 percentage points. ODS won elections with a record-high 35.4% of the vote, and ČSSD followed second with 32.3%. Surprisingly, however, neither of the two likely outcomes materialized, as the electoral result ended in a genuine deadlock: the right-of-center block of ODS, KDU-ČSL and SZ in total gained 100 seats, the same as the number of seats gained by the Social Democrats and the Communists. This led to a time of political turmoil which lasted for over seven months.

The ODS was given a first try and launched coalition negotiations. On June 26th, the ODS, KDU-ČSL, and SZ signed a coalition agreement, yet the coalition still did not have a majority in the House. Miroslav Kalousek, the

Table II.3.1 Composition of the Chamber of Deputies

Election Year Party	2002				2006			
	Votes	%	Seats	%	Votes	%	Seats	%
ODS	1,166,975	24.5	58	29.0	1,892,475	35.4	81	40.5
ČSSD	1,440,279	30.2	70	35.0	1,728,827	32.3	74	37.0
KSČM	882,653	18.5	41	20.5	685,328	12.8	26	13.0
Coalition KDU-ČSL and US-DEU	680,671	14.3	31	15.5				
KDU-ČSL					386,706	7.2	13	6.5
SZ	112,929	2.4			336,487	6.3	6	3.0
Others	484,499	10.2			319,153			
Total of Valid Votes	4,768,006				5,348,976			
Eligible Voters	8,264,484				8,333,305			
Participation	4,789,145	58.0			5,372,449	64.5		
Not Valid Votes	21,139				23,473			

Source: CSO

leader of KDU-ČSL, made a risky bet and launched separate negotiations with the Social Democrats who were unwilling to make any concession to the right-wing coalition. The negotiations between KDU-ČSL and ČSSD, in order to lead to any breakthrough, needed the tacit cooperation of the Communist Party. Within-party opposition in KDU-ČSL (representing the religious constituency), could not swallow such cooperation with the successors of their oppressors, and Kalousek was forced to resign as the party Chairman.

The provisional Cabinet finally resigned following a vote of no confidence in Parliament on October 3. It was expected that the President would then give a chance to either ČSSD or ODS with a new party chair. Yet strong performance in local and Senate elections made the ODS Chair Topolánek stronger and in a surprise announcement on November 6, the President Václav Klaus said he would give him another shot to lead the country. The seemingly endless deadlock came to an end when two ČSSD deputies, Michal Pohanka and Miloš Melčák, defected from the Social Democrats and did not attend the confidence vote. That gave the slightly reshuffled cabinet of ODS, KDU-ČSL and SZ the margin it

needed to win a majority, with all 100 coalition deputies voting in favor of the Cabinet, and 97 ČSSD and KSČM present deputies voting against it. The political price for this solution is an undermined public trust in the effectiveness of constitutional institutions, a weak Cabinet mandate and a poor prospect for comprehensive reforms. In January 2007, polls indicated that three in five Czechs did not like this lineup and close to half the country's adult population wanted an early election.

The Upper House

The unprecedented political marketing prior to the Lower House elections and an ongoing coalition formation affected fall replacement elections to the third of the Senate (in two districts, extra votes took place in April 2007). The conservative ODS and the leftist ČSSD increased their dominance in the party system: ODS gained six additional seats and its party club now controls the House (with 41 out of 81 members), while ČSSD doubled the rather sparse ranks by winning seven new seats. This occurred mainly at the expense independent candidates, and US-DEU as a party in decay. An important novice

Table II.3.2 Composition of the Upper House

| Party | 2000 | | 2002 | | 2004 | | 2007 | |
	Seats	%	Seats	%	Seats	%	Seats	%
KSČM	3	3.7	3	3.7	2	2.5	3	3.7
ČSSD	14	17.3	9	11.1	6	7.4	13	16.0
KDU-ČSL	18	22.2	13	16.0	11	13.6	10	12.3
ODS	21	25.9	25	30.9	35	43.2	41	50.6
ODA (+US)	12	14.8	1	1.2	1	1.2	1	1.2
US-DEU			6	7.4	4	4.9	1	1.2
Independent	13	16.0	22	27.2	19	23.5	9	11.1
Others			2	2.5	3	3.7	3	3.7
Total	**81**	**100.0**	**81**	**100.0**	**81**	**100.0**	**81**	**100.0**

Source: CSO

into the House was Jiří Čunek (KDU-ČSL) who, shortly after being elected, also became party chair. The results of the elections not only affected the coalition formation analyzed above, but also boosted the prospects of President Václav Klaus for reelection in early 2008.

II.4 Fragile Cabinet

Reforms

After a narrow vote of confidence, Topolánek began to outline an aggressive program of reforms. ODS trumpeted the flat tax as one of its hallmark initiatives. Yet the government's attempts to pass sweeping legislative reforms threatened to dissolve the shaky coalition, and also rested on the support of defecting deputies from ČSSD. Moreover, the SZ's key positions in many fields moved certain issues such as tuition fees out of the agenda. The SZ also conditioned their support of the reforms on an environmental tax that would tax those using (domestic) coal to heat their homes and exempt households using natural gas (that has to be 100% imported).

The ambitious proposal for reducing spending and cutting the national debt was officially presented on April 3. Plans included tax reforms, benefit cuts and revamped social and labor policies. There was a fair amount of dissent across the political spectrum against the proposal. Critics on the right accused ODS of backpedaling from its vow to create a flat tax, and those on the left said the package would hurt the middle and lower classes.

In the meantime, more than 30,000 labor union members, mainly of the 570,000-member Czech-Moravian Confederation of Trade Unions (ČMKOS), demonstrated on June 23 against the government's proposed reforms. Union leaders who spoke at the protest said the current reform bill gave tax breaks to the wealthy while hurting individuals with lower incomes and welfare needs.

The following important reforms were at stake: (1) a flat 15% income tax (on the "super-gross" wage income which includes social and health insurance contributions); a lowered corporate income tax (from 24 to 19%); (3) revisions of tax deductions and broad cuts to social benefits (reduction to birth allowances, shortening of parental leave, tightening of sickness benefits, government and political salaries freeze for two years); (4) a value-added tax hike from 5% to 9% on certain goods and services, starting in January 2008.

At last, the government secured the support of coalition deputies plus the two ČSSD dissenters for its package of reform-related bills. The bill's final reading passed the Chamber of Deputies on August 21, 2007.

Bribery case

Another hurdle for the Cabinet to overcome was an accusation of the Deputy Prime Minister, KDU-ČSL Chairman and Regional Development Minister Jiří Čunek of accepting a bribe in 2002. The daily Mladá fronta Dnes reported on January 23, 2007 that Čunek deposited

497,000 CZK (25,000 USD) into his account while he was a mayor of Vsetín, in east Moravia. Around the same time, a real estate firm withdrew a similar amount from its account.

On February 7, the Senate stripped Čunek of his immunity, and he was officially charged two days later. The SZ chairman Martin Bursík criticized the fact that Čunek stayed in the government in spite of the corruption accusation and urged Čunek to resign before the case was settled. However, Prime Minister Topolánek only asked him to step down, taking no further action after Čunek's refusal.

However, the case did not end there. In the March 30 issue of a popular tabloid Blesk, a reader asked how a non-Roma could receive housing subsidies. Čunek replied, "For this you would have to get sunburned, make a mess with your family, start fires on town squares, and only then some politicians would say, 'He is a really miserable man.' "

Čunekgate was unprecedented in the Czech justice system. The Supreme Attorney ordered to shift investigations from east Moravia to south Bohemia because detectives had selected only pieces of evidence against Čunek, and violated the legal code in communicating with witnesses. On August 7, the State attorney Arif Salichov halted the prosecution of bribery, mainly because he found the principal witness, Čunek's former secretary Marcela Urbanová, untrustworthy.

II.5. Regional Administration

The local government in the Czech Republic has two layers: 6,234 municipalities and 14 regions (NUTS 3). These are self-administered units; people elect their representatives for municipal and regional councils. The municipalities are responsible for the usual kinds of local public services (elementary schools, local libraries, street cleaning, etc.). In addition to that, 205 bigger towns have a special status of "municipalities with extended jurisdiction." These also carry out some administrative agendas of the central government (ID cards and passports, social security allowances, special child care, legal protection, driving licenses, etc.) not only for their own residents, but also for the residents of nearby smaller municipalities. This arrangement was adopted in 2003, when the 76 county offices of the central government were abolished and their competences transferred either downstream to the "municipalities with extended jurisdiction" or upstream to the regional governments.

While the division of administrative responsibilities between the regional governments and the central government is clear, the two groups continue to clash over the division of funds, which are still largely controlled by the center. The regional offices took over some administrative duties, and, more importantly, hundreds of health, social, and cultural institutions formerly administered by the county offices. These institutions are still financed by grants from the central budget, leaving little freedom for financial management decisions by regional offices. Not only regional governments, but also small municipalities complain about the current revenue-sharing law. In early spring, representatives of 794 townships, representing 559,311 inhabitants in
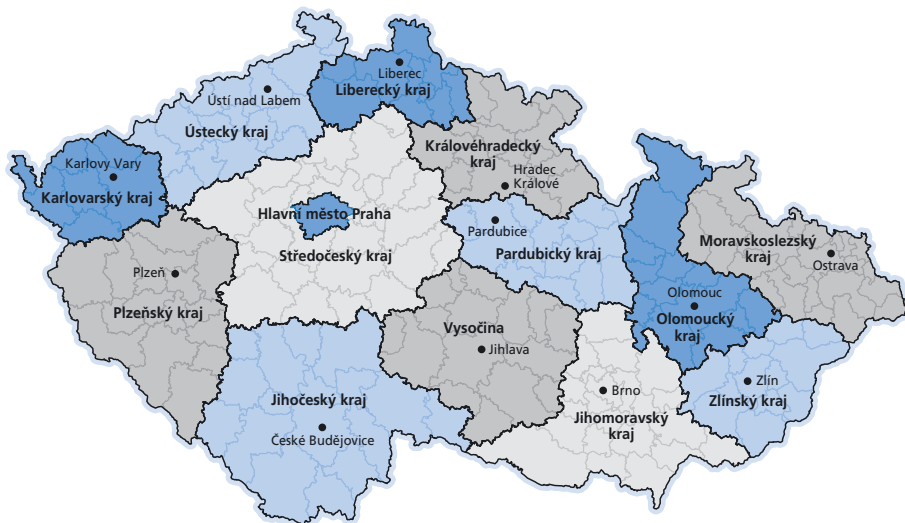
total, arranged a petition against the law. In the current system, the more populated the municipality, the larger the revenue per capita; the coefficient ranges from 0.42 (up to 100 inhabitants) to 2.7 for Prague. One problem is that such dispersion is large and reflects only municipality population, not density: small towns have on the average 0.59, while cities 1.7. The petition was handed over to the Senate on June 26, and the Cabinet proposed initiating amendments to the law.

Table II.5.1 Regions

|					
Number of regions	13[a)]				
Minimum size (km²)	3,163	Minimum population	304,343	Minimum number of municipalities	132
Maximum size (km²)	10,057	Maximum population	1,269,467	Maximum number of municipalities	1,048
Average size (km²)	5,943	Average population	689,166	Average number of municipalities	473
Municipalities with extended jurisdiction					
Number of municipalities with extended jurisdiction			205		
Minimum size (km²)	48	Minimum population	9,500	Minimum number of municipalities	1
Maximum size (km²)	1,242	Maximum population	376,172	Maximum number of municipalities	111
Average size (km²)	382	Average population	44,200	Average number of municipalities	31

Note: a) Data for capital Prague are excluded from the tables since Prague has a specific status.
Source: CSO

III. MACROECONOMY

III.1 Gross Domestic Product

Figure III.1.1 GDP Growth Decomposition
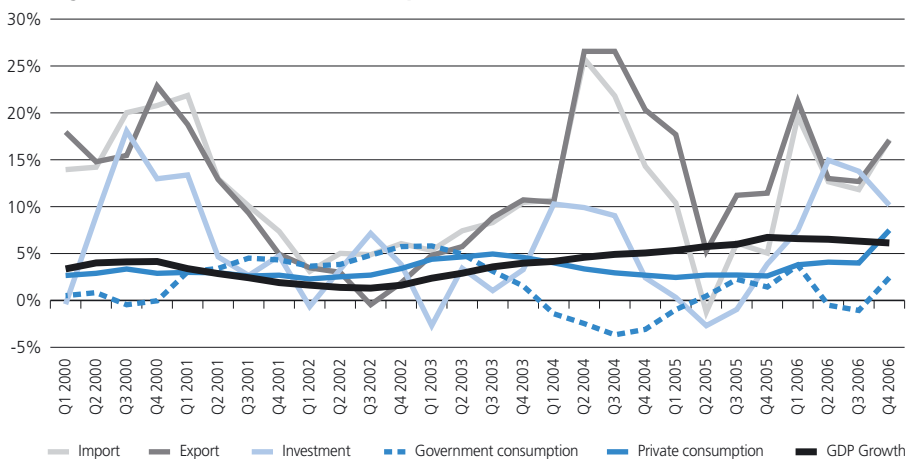
After the record level of growth in 2005, the growth rate of GDP remained high in 2006. The annual real GDP growth rate was 6.1% on a year-to-year basis. Differently from the previous year, the growth in 2006 was mainly driven by final consumption and gross capital formation. Each of the two demand components contributed 2.4 and 3.4 percentage points, respectively, to the overall growth rate. The remaining 0.3 percentage point increase was due to improvements in the external trade balance. The demand for total real imports grew by 14.2%, which was one of the highest growth rates recorded in recent years. Such an increase in imports should be considered in line with the high increase in real gross capital formation, which grew by 11% on a year-to-year basis. In other words, as investments into the Czech economy increased, this in turn led to an increase in the demand for foreign capital goods. The real export growth rate was also remarkable, 14.6%.

On the resource side of the GDP, the growth was mainly driven by manufacturing. Manufacturing grew by 14% and its contribution to growth was 4.9 percentage points. Despite the fact that manufacturing growth was 18.6% in the first quarter of 2006, towards the end of the year the manufacturing growth slightly declined and was only 12.6% in the last quarter of the year. The other sector that contributed the most to the growth of GDP was wholesale and retail trade (1.1 percentage point). Agriculture and electricity and gas and water supply were

the only sectors that had negative growth rates of -7.2% and -9.1%, respectively. Their total dampening effect on growth was -0.5 percentage point.

According to the CERGE-EI predictions shown in Table III.1.1, there will be a mild slowdown in the growth rate of GDP in 2007 and 2008, and the predicted average growth rates for the two years are 5.1% and 4.8%, respectively. CERGE-EI forecasts are slightly below predictions produced by the Czech National Bank (CNB) for 2007. CNB expects the growth rate to be in the range of 5.5–6.7% in 2007 and 4.1–6.7% in 2008.

Table III.1.1 GDP Forecasts

	2005	2006	2007				2008			
			Q1	Q2	Q3*	Q4*	Q1	Q2	Q3*	Q4*
with adjustments to other forecasts**	6.1	6.1	4.6	4.1	3.8	5.4	5.1	4.4	4.3	4.2
without adjustments to other forecasts	6.1	6.1	4.6	4.6	4.5	6.3	5.9	4.7	4.6	4.4

* CERGE-EI forecasts.
** After taking into account EIU and OECD predictions; it is assumed that these institutions' forecasts contain a systematic bias or deviation from actual figures.

Source: CERGE-EI Forecasting Model

III.2 Inflation

The Czech National Bank (CNB) adopted a new inflation target of 3% with a tolerance band of ±1% as of January 2006. The new target connects smoothly to the former gradually descending target band. Two key policy rate changes occurred in 2006: CNB hiked the key 2-week REPO rate from 2.0% to 2.25% in July and later to 2.5% in September. In 2007, the key rate rose to 2.75% in June and to 3.0% in July.

In March 2007, CNB announced an intended change of the inflation target to 2% ± 1% as of January 2010. At the same time, two changes focused on enhancing the transparency of monetary policy decision making were announced. Starting in 2008, CNB will publish a forecast-consistent path of future interest rates in the form of fan chart. Also, individual board member's votes on interest rates changes will be published.

Year-to-year consumer price inflation was relatively stable in the first three quarters of 2006, oscillating in a range between 2.7% and 3.1%. Inflation was generally higher for most of 2006 compared to the previous year, although it fluctuated very close to the original point inflation target of 3%. The rise in inflation in the first nine months of 2006 was mainly due to faster growth in the prices of electricity, heat and natural gas for households. Annual consumer price inflation fell significantly in the fourth quarter of 2006 and stood at 1.7% in December 2006, below the lower boundary of the tolerance band of the inflation target. The decline in inflation was attributed mainly to a sharp slowdown in the growth of regulated prices, especially in the category of housing, water, energy and fuels, which, in turn, was largely due to an easing of world prices of energy-producing materials.

Despite a downward revision of the inflation forecast that followed the lower records of inflation at the end of 2006, the predictions of the CNB suggest a gradual increase in consumer prices throughout 2007 and during the first half of 2008. Specifically, the 2008 inflation forecast lies in the upper half of the tolerance band of the inflation target, i.e. between 3% and 4%. The main factors underlying such a projection are an expected growth in regulated prices, pressure from the real economy, an increasing contribution from changes to indirect taxes, and growth in import prices. Interestingly, the forecast conducted at CERGE-EI shows that despite the gradual rise of inflation in 2007, it will slightly decrease in the first half of 2008, thus staying below the target through the whole forecasting period.

Table III.2.1 CPI Forecasts

Annual inflation rate, %		2005	2006	2007*				2008*			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
with adjustments to other forecasts**	average***	1.90	2.53	2.24	2.07	1.91	2.16	2.30	2.27	2.14	2.07
	end of period	2.38	1.50	1.67	2.20	2.27	2.50	2.22	2.11	1.74	2.22
without adjustments to other forecasts	average***	1.90	2.53	2.24	2.09	1.95	2.23	2.40	2.39	2.24	2.17
	end of period	2.38	1.50	1.67	2.27	2.35	2.64	2.34	2.23	1.78	2.33

* CERGE-EI forecast released on August 6, 2007.
** After taking into account EIU and OECD predictions; it is assumed that these institutions' predictions depict systematic bias or deviation from actual figures.
*** Presented average inflation rate characterizes the percentage change of average price level of latest four quarters against the average price level of previous four quarters.

Source: CERGE-EI Forecasting Model

CERGE-EI Forecasting Model

The predictions of GDP and inflation presented in the previous two sub-sections were calculated using the CERGE-EI forecasting model. The model combines a number of econometric techniques. Forecasts from these statistical models are weighted by their variability, which results in more accurate predictions. We have been producing forecasts for 13 Central and Eastern European countries since the second half of 2006. Forecasts released on August 6, 2007 are reported in Table III.2.2. They are indicative of high growth and relatively low inflation in most considered countries accompanied by stable or decreasing unemployment rates. The position of the Czech Republic among the 13 countries is characterized by a somewhat smaller growth rate of GDP, low inflation and a low unemployment rate.

Table III.2.2 CERGE-EI Macro Forecast

	Annual growth, %				Inflation, %				Unemployment, %			
	2007 Q3	2007 Q4	2008 Q1	2008 Q2	2007 Q3	2007 Q4	2008 Q1	2008 Q2	2007 Q3	2007 Q4	2008 Q1	2008 Q2
Bulgaria	7.0	6.9	7.6	7.9	3.3	3.8	5.0	5.4	8.6	8.1	8.3	8.6
Croatia	5.0	4.2	4.9	4.3	3.1	2.9	2.8	2.9	16.7	16.7	16.8	16.6
Czech Republic	**3.8**	**5.4**	**5.1**	**4.4**	**1.9**	**2.2**	**2.3**	**2.3**	**6.7**	**6.7**	**6.8**	**6.6**
Estonia	9.4	9.3	9.6	9.1	4.1	4.1	4.2	4.1	7.0	6.8	6.2	7.2
Hungary	4.2	4.4	4.8	5.0	4.8	3.8	2.7	3.1	7.5	7.6	7.4	7.0
Latvia	11.1	11.1	11.3	11.1	5.8	5.4	4.4	4.5	6.2	6.3	6.0	6.3
Lithuania	8.1	7.7	7.8	7.5	4.1	3.9	3.7	3.5	3.4	3.7	3.9	3.0
Poland	6.2	5.9	5.4	5.2	2.0	2.4	2.5	2.6	12.0	11.1	11.0	9.9
Romania	6.2	6.1	6.8	6.2	3.8	3.3	3.1	3.1	4.5	4.6	4.2	4.2
Russia	7.5	7.2	7.8	8.1	4.5	5.3	5.7	5.9	7.2	7.7	7.8	7.4
Slovakia	9.3	9.1	9.8	8.7	2.8	2.4	2.4	2.4	9.8	9.6	9.5	8.8
Slovenia	4.8	4.6	4.2	4.3	2.2	2.2	2.2	2.3	7.5	7.2	7.6	7.7
Ukraine	7.7	6.4	7.4	5.8	10.1	9.5	9.3	9.9	2.3	2.5	2.7	2.5

Released on August 6, 2007.
Source: CERGE-EI Forecasting Model

III.3 Is the Adoption of the Euro Closer?

Upon entering the EU, the Czech Republic committed to join the euro zone immediately after meeting the Maastricht criteria (this condition holds for all new EU member states). However, there remains some room for maneuver, namely deliberate violation of the convergence criteria (as in the case of Sweden). In January 2007, Slovenia adopted the single European currency as the first new member state. Malta and Cyprus will introduce the euro in 2008 and the others are willing to follow. Slovakia for many years viewed as the poorer former part of Czechoslovakia, is experiencing above-average economic growth following courageous reforms of pension and tax systems. It is focused on the adoption of the euro in January 2009. Not meeting the criteria does have a price though. Latvia's high inflation rate is likely to keep it out of the euro zone in 2008, which was the originally planned year for the adoption of the euro.

The Slovak adoption of the euro has consequences for the Czech Republic and makes the adoption of the euro somewhat more attractive. Slovakia is an important trading partner of the Czech Republic, and if both countries use the euro, the transaction and administration costs can be reduced dramatically. Also, both countries are very similar in their economic characteristics and are typically chosen for foreign direct investments due to their proximity to the western markets. Keeping the Czech koruna in the place of the euro might put the Czech Republic at a comparative disadvantage since the volume of trade between Slovakia and other countries in the euro zone could increase

Table III.3.1 The Maastricht Criteria and the Czech Republic

		2003	2004	2005	8/2006	2006	2007	2008	2009
Harmonised Index of Consumer Prices	Avg. for 3 EU countries with lowest inflation	1.2	0.7	1.0	1.3	1.2	1.6	1.5	1.5
	Reference value (prev. line +1.5 p.p.)	2.7	2.2	2.5	2.8	2.7	3.1	3.0	3.0
	Czech Republic	-0.1	2.6	1.6	2.4	2.4	2.6	2.5	2.5
General government budget balance (ESA 1995 methodology, in % of GDP)	Reference value	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
	Czech Republic	-6.6	-2.9	-3.6	–	-3.5	-4.0	-3.5	-3.0
Government debt (ESA 1995 methodology, in % of GDP)	Reference value	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
	Czech Republic	30.1	30.7	30.4	–	30.6	31.7	32.4	33.0
10-year interest rates on government bonds on the secondary market	Avg. for 3 countries with lowest inflation	4.12	4.28	3.37	4.06	4.1	4.5	4.4	4.4
	Reference value (prev. line + 2.0 p.p.)	6.12	6.28	5.37	6.06	6.1	6.5	6.4	6.4
	Czech Republic	4.12	4.75	3.51	3.68	3.9	4.5	4.3	4.3

Forecasts are in bold.
Source: Czech National Bank and Ministry of Finance

rapidly relative to the trade of the Czech Republic with the same countries.

In its Strategy of Accession to the euro zone, published in 2003, the Czech Republic announced the years 2009 or 2010 as a preliminary date of entering the euro zone. However, the Czech Republic has had a series of large budget deficits and macroeconomic forecasts signal an increasing ratio of government debt to GDP. As a result, the govern-

Figure III.3.1 Trade with Slovakia
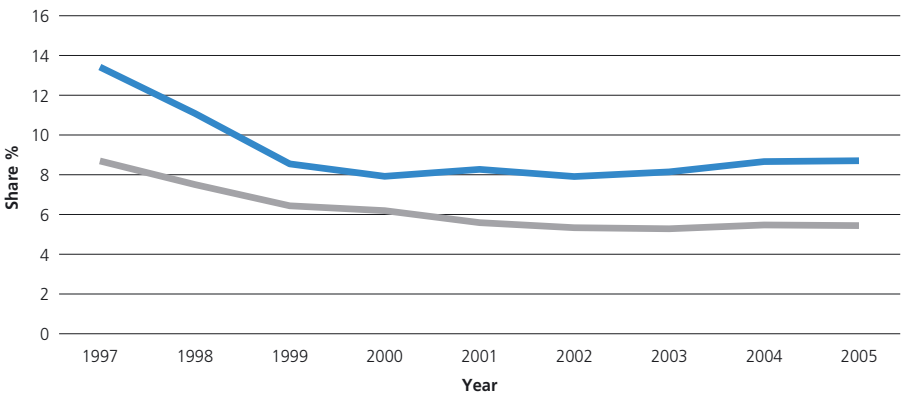
Source: CSO

━━ Import ━━ Export

Figure III.3.2 The Changeover timetable in the Czech Republic

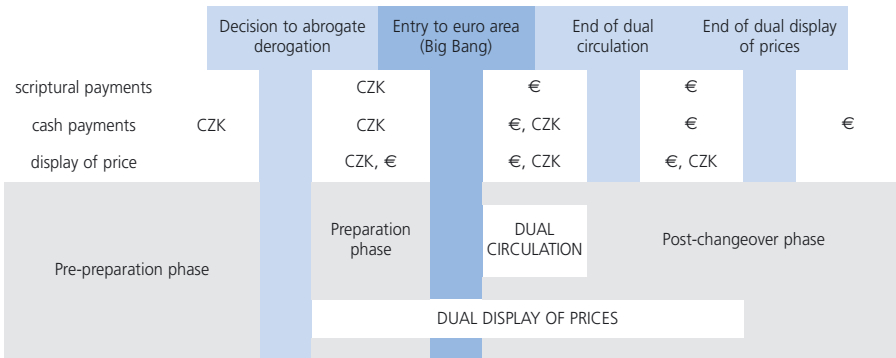|	Decision to abrogate derogation	Entry to euro area (Big Bang)	End of dual circulation	End of dual display of prices
scriptural payments		CZK	€	€	
cash payments	CZK	CZK	€, CZK	€	€
display of price		CZK, €	€, CZK	€, CZK	

Pre-preparation phase	Preparation phase	DUAL CIRCULATION	Post-changeover phase

DUAL DISPLAY OF PRICES

ment opted out of the option to join ERM II, which essentially rules out the euro adoption before 2010. The long-time problems of fiscal policy such as generous social expenditures and population ageing illuminate the importance of pension, public finances and healthcare system reform.

In April 2007, the government approved the National euro Changeover Plan for the Czech Republic, which summarized the basic principles of the transition towards using the euro. It defines the main tasks in the institutional, technical and legislative areas. It specifies that after the fulfillment of the entry criteria for the euro, the conversion rate will be fixed six months prior to the target date for the euro adoption. In other words, the Czech koruna will irrevocably be fixed against the euro. Countries which have already entered the euro zone preferred the scenario of a Big Bang when the euro is introduced instantaneously in non-cash (scriptural) payments as well as in cash payments. In order to prevent

chaos and negative psychological emotions, all prices of goods and services, bank statement balances, etc. will be displayed in dual prices for a period of six months before euro adoption and until the end of the year in which the euro is introduced. Dual circulation will last only for two weeks. The dual display of prices, together with tracking goods and services prices in a database and open communication, will avoid price increases and the phenomenon of perceived inflation experienced by countries which adopted the euro in the past.

The National Changeover Plan does not mention the particular date of the euro introduction in the Czech Republic and for the time being, a new Strategy of Accession to the Eurozone is being prepared. The finance minister has declared 2012 as the likely adoption date and this date will probably be confirmed in this document conditional on the improvement of the fiscal situation.

III.4 Foreign Trade in 2007: Increasing the Surplus?

Figure III.4.1 Terms of trade

Source: CSO   ▬ Import prices   ▬ Export prices   ▬ Terms of trade
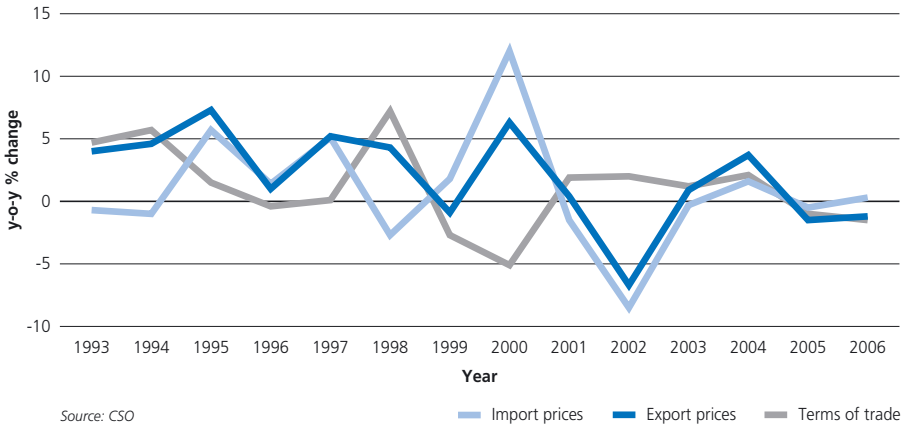
Brief Overview and General Trends

Since the early 1990s, trade liberalization, economic reforms, and "transformation recessions" that occurred almost simultaneously in many of the traditional Czechoslovakian export markets led to rapid reorientation to "Western markets", especially the markets of the EU. The share of the EU15 quickly increased to more than 60% in both exports and imports (although the import share of the EU15 has been eroded because of the increasing role of China). In May 2004 and

January 2007, the share of the EU markets expanded even further due to the two respective EU enlargements. The current EU27 is thus the dominant trading partner of the Czech economy with 86.1% of total Czech exports and 71.5% of Czech imports.

Trade liberalization and the transformation of the economy led to a fast growth of both exports and imports (see Table III.4.1). The opening of the economy, its initial relative low competitiveness and the resulting need to invest led to a sustained balance of trade

Table III.4.1 Czech Foreign Trade 1996–2006

CZK millions	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006*
Total Exports	601,680	709,261	834,227	908,756	1,121,099	1,268,149	1,254,860	1,370,930	1,722,657	1,868,586	2,144,006
Total Imports	754,670	859,711	914,466	973,169	1,241,924	1,385,564	1,325,671	1,440,723	1,749,095	1,829,961	2,101,040
Balance	-152,990	-150,450	-80,239	-64,413	-120,825	-117,415	-70,811	-69,793	-26,438	38,625	42,967
Growth	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006***
Total Exports		17.9	17.6	8.9	23.4	13.1	-1.0	9.2	25.7	8.5	14.7
Total Imports		13.9	6.4	6.4	27.6	11.6	-4.3	8.7	21.4	4.6	14.8

* Preliminary results.
Source: CSU

deficit. This changed in 2005 and 2006, and the Czech Republic is likely to remain a net exporter in the near future. This change occurred in spite of the less favorable development of the terms of trade in the two years (see Figure III.4.1) and it can be attributed to the pro-export orientation of the inflow of foreign investment motivated by accession to the EU. The accession and recent economic history defined the position of the Czech Republic as a country with full member status (which means that trade barriers with the EU have been removed and cannot be reintroduced) combined with lower labor costs.

Main Trade Partners

The share of the EU in the Czech exports increased rapidly after the beginning of the reforms in 1991 and it went on increasing both because of the gradual mutual liberalization and increasingly intensive investment flows, as well as thanks to the enlargement of the EU which gradually encompassed virtually all other previously non-EU export markets. The pattern of imports is slightly different though. The developed countries (and the EU) still dominate, but the position of Russia and China is strong and especially in the case of China relatively increasing.

If we consider the partner countries individually, then the main export markets of the Czech Republic in 2006 were Germany (31.8% of total exports), Slovakia (8.4%), and Poland (5.7%), closely followed by France and Austria. On the import side, the ranking was different: Germany (28.5%), China (6.1% without Hong Kong and Taiwan), and Russia (6%), closely followed by Poland and Slovakia. These differences have obvious implications for the pattern of trade surpluses and deficits with individual countries; while the Czech Republic has the highest surpluses

with Germany, Slovakia and the U.K., it has fairly deep deficits with China, Russia, and Japan. In general, the Czech Republic mostly has trade deficits with countries that are distant (geographically and culturally).
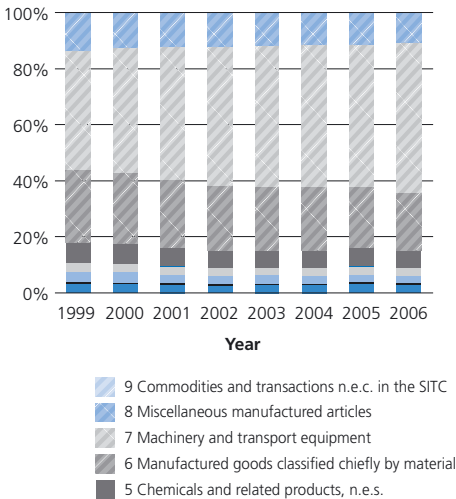
Changes in Specialization

The fast emergency reorientation of exports to the EU markets after 1991 resulted in an initial overall decrease of the share of more advanced finished products in total exports; for example, the share of machinery and transport equipment (SITC 7) dropped to 25.4% and the share of crude materials (SITC 2) increased to 6.5% by 1992. However, this situation reversed very soon and the Czech Republic has been returning to a pattern of trade typical for an industrial country, with a high and increasing share of SITC 7 category (53% of total exports in 2006) and a decreasing share of SITC 0–4 (see Figure III.4.2). This trend is likely to continue given the current specialization of the Czech Republic in the automotive industry. Road vehicles (SITC 78) alone amounted to almost 18% of total Czech exports in 2006. Although the growth of the Czech automotive sector played a positive role, the increasing specialization may eventually turn into dependence and it can make the Czech Republic vulnerable to shocks afflicting the sector.

Changes in the structure of Czech imports (see Figure III.4.3) reveal a similar pattern: again the SITC 7 dominates with more than a 41% share in total imports in 2006. However, the higher share of SITC 0–4 reveals the dependence of the Czech economy on imports of many crude materials and especially oil.
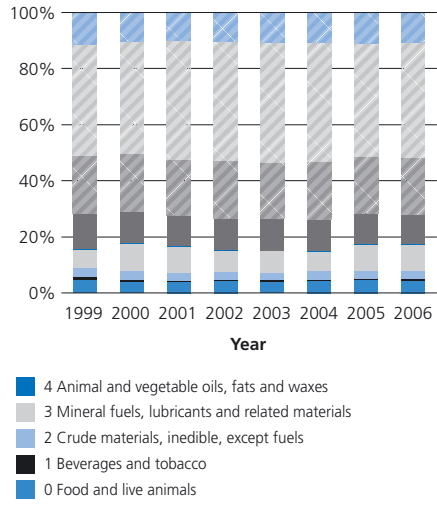
Trade Policy

The Czech Republic became a member of the EU in May 2004. Since that date it has

Figure III.4.2 Changes in the Pattern of Czech Exports

Figure III.4.3 Changes in the Pattern of Czech Imports

9 Commodities and transactions n.e.c. in the SITC

8 Miscellaneous manufactured articles

7 Machinery and transport equipment

6 Manufactured goods classified chiefly by material

5 Chemicals and related products, n.e.s.

4 Animal and vegetable oils, fats and waxes

3 Mineral fuels, lubricants and related materials

2 Crude materials, inedible, except fuels

1 Beverages and tobacco

0 Food and live animals

Source: CSO

applied the common commercial policy and the common customs tariff of the EU on all trade with other countries. The only domain where the member countries enjoy more independence are the measures related to support for exporters. As far as trade with the EU countries is concerned, the country should be enjoying a full access to the common market. However, there are still substantial problems in the intra-EU liberalization of trade in services, where the new member countries often complain about discrimination. The incomplete liberalization in the sector of services together with existing barriers to intra-EU mobility of labor can also negatively influence the merchandise trade as well.

The pro-export policy has three basic forms: (i) information support and assistance, i.e. providing information about other territories and support for presentation at trade fairs (Czech Centers, Czech Trade), (ii) export

credits supplied by the Czech Export Bank, and (iii) the insurance of export activities provided by the Export Guarantee and Insurance Corporation (EGIC).

In general, policy instruments that are under the direct control of the Czech government have a relatively small direct effect on Czech exports and imports. For example, the total volume of credits and guarantees provided by the Czech Export Bank amounted to less than 20 billion CZK in 2006 (less than 1% of total Czech exports), the total volume of newly provided export insurance with state support provided by EGIC amounted to 29.9 billion CZK in 2006 (1.4% of total exports).

Given the fact that the current EU27 represented about 86.1% of total Czech exports and 71.5% of Czech imports during the first quarter of 2007, the top priority for the immediate future of the Czech trade policy should be to accomplish the liberalization of

Figure III.4.4 Current Account and Foreign Trade

Source: MFCR   ▬ Balance of Trade   ▬ Services   ▬ Current Account
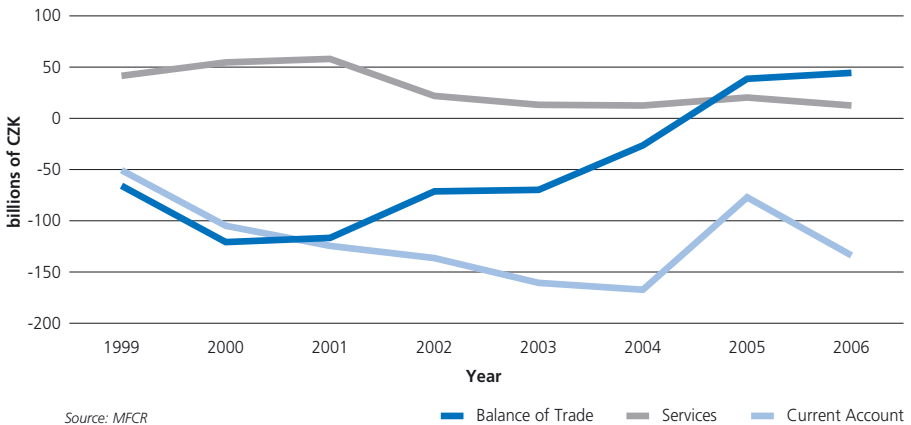
trade in services and remove existing inadequacies in equal participation in the common market.

Changing Role of the Balance of Trade in the Balance of Payments

During most of its independent history, the Czech Republic has had a deficit in its balance of trade, which was partially compensated by a surplus in the trade in services. This situation changed in 2005 thanks to the fast growth of exports. The balance of trade changed from deficit to surplus, but the whole current account remained in red numbers because of the increasing deficit in the income balance. The fast growth of exports (see Table III.4.1) can be explained by the pro-export orientation of foreign investment

Figure III.4.5 Czech Current Account (in % of GDP)

Source: CNB   ▬ Current Account
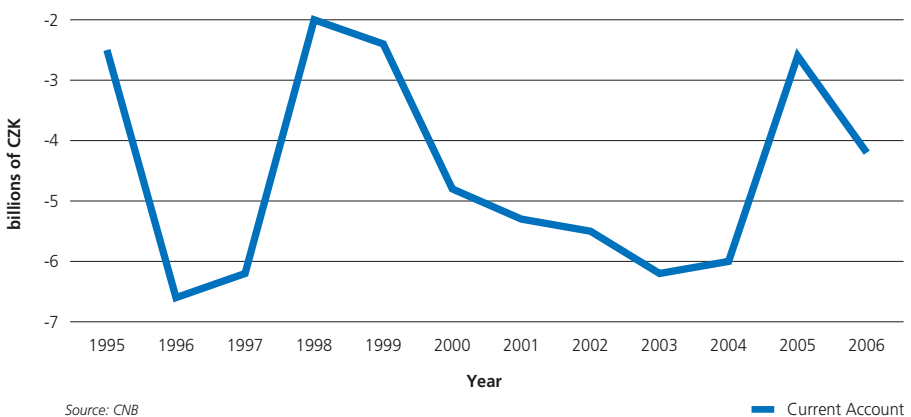
attracted to the country by the outlook of Czech membership in the EU. This fast growth of exports in 2005 also increased the contribution of foreign trade to the formation of GDP growth: it amounted to a record 4 percentage points in 2005, but it returned to more moderate values in 2006 (0.5 percentage points).

Even though the rapid growth of the surplus slowed down in the first half of 2006 because of the increasing import prices (fuels), the general trend is likely to continue in the near future and the balance of trade surplus will be increasing. During the first quarter of 2007, the positive surplus on the balance of trade even contributed to the emergence of a positive surplus on the current account (+1.6% GDP), but this is likely to return back to a more traditional pattern (surplus in the balance of trade and in the balance of services, but deficit on current account) because of transfers of income that typically occur in the second and third quarters.

III.5 Foreign Direct Investment (FDI)

On average during 1995–2006, the FDI inflow was 6.5% of GDP annually, but there were big differences among years caused by large privatization deals. The growth of FDI flows accelerated only in 1995 and continued to increase thanks to the privatization of three big banks and Transgas between 1998 and 2002. On the other hand, 2003 and 2004 saw no major large-scale investment projects and the increase in the stocks of FDI was significantly lower. In 2005, the Czech government sold its 51% stake in the major telecommunication company to Spain's Telefonica. The deal with a price of 3.5 billion USD was one of the biggest privatization deals of the post-communist era. In 2005, another of the controversial government's major privatization projects – the sale of oil and gas giant Unipetrol – was finally resolved with a majority stake of 63% being acquired

Figure III.5.1 FDI inflows to the Czech Republic 1993–2006
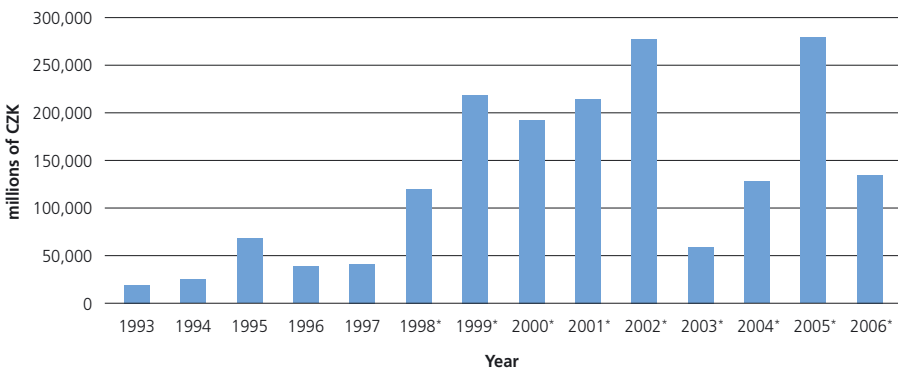
Source: Data provided by the Czech National Bank.
* Until 1997 data included FDI in equity capital, starting from 1998 data on reinvested earnings and other capital have been included in FDI flows.
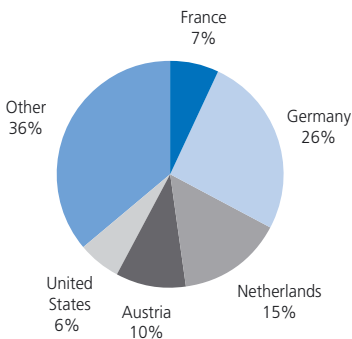
by Poland-based PKN Orlen. Due to these large sales, FDI inflow jumped to 11 billion USD in 2005. There were no major privatization deals in 2006 and thus the total inflow was estimated as a mere 6 billion USD.

Another potential large deal that could occur in the near future would be a privatization of the 67.6% stake in the electricity monopoly CEZ. The expected price tag is about 250–300 billion CZK, but the state would have to give up an annual dividend inflow that is currently stands at about 22 billion CZK and is continuously growing. Meanwhile, CEZ also contributes to FDI outflows with its investment into a Bulgarian distribution company. By the end of 2005, the stock of Czech investment abroad reached about 3.6 billion USD and for 2006 the FDI outflow is estimated at 1.3 billion USD. This is still rather low but it can be expected that the recent surge in inward FDI will be followed, with a certain lag, by the growth of outward FDI in the future. Most of the outward investment was directed to other Central and Eastern European or Asian countries in the past.
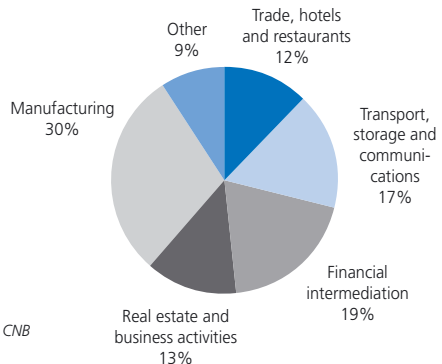
However, in 2006 one third of outward FDI went to other EU countries. This means that the outward geographical structure is slowly converging to the structure of inward FDI. To the date, about 89% of inward FDI comes from the "old" EU members, the major investors being Germany and the Netherlands.

The industrial structure of FDI is dominated by manufacturing with its share reaching 38% on total FDI stock by the end of 2006. The role of foreign capital in manufacturing has been steadily growing and recently foreign owned manufacturing firms are estimated to produce 65% of total sales, provide employment to 45% of the sector's workers and produce about 80% of total exports. Foreign ownership also prevails in banking and public utilities, the energy sector being the only exception. Foreign direct investment is an important component of transformation in the Czech economy and helps to facilitate rapid change. Moreover, in many companies, an improvement in performance is the key to becoming competitive on global markets.

Figure III.5.2
Stock in the Czech Republic
by Country (1993–2006)

France 7%
Other 36%
Germany 26%
United States 6%
Austria 10%
Netherlands 15%

Source: CNB

Figure III.5.3
FDI Stock in the Czech Republic
by Industry (1993–2006)

Other 9%
Trade, hotels and restaurants 12%
Manufacturing 30%
Transport, storage and communications 17%
Financial intermediation 19%
Real estate and business activities 13%

Until 1997 data included FDI in equity capital, starting from 1998 data on reinvested earnings and other capital have been included in FDI flows.

IV. LABOR MARKET

IV.1 Human Capital

The Czech Republic boasts one of the highest upper secondary school completion rates in the OECD and in this respect is one of the few countries that already achieved one of the ambitious Lisbon agenda goals. In 2004, 89% of the Czech population aged 25 to 64 had completed at least upper secondary school. On the other hand, only a very small proportion of the Czech population has completed university: 12% of the population aged 25 to 64 has a university degree, compared to an OECD average of 25 per cent.

The structure of the Czech educational and training systems parallels those of other European countries. However, a very high percentage of secondary school students were and still are enrolled in vocational programs. For example, in 1995, only 16% of Czech secondary school students were in an academic secondary program, compared with 47% in a typical OECD country. While the size of the general secondary programs has on the whole been almost fixed and a substantial supply gap persisted over recent years, the rapidly declining size of the youth cohorts has allowed an increasing fraction of each cohort to enrol in a general secondary education program and to subsequently enter a university or a lower-tertiary-education program.

While private secondary schools established only in the early 1990s now provide about one fifth of the total of secondary education in the country and are allowed to charge tuition on top of the public subsidy, public universities and colleges, which are tuition-free by law, continue to dominate the

Table IV.1.1 Fraction of Population (%) that Has Attained at Least Upper Secondary* or Tertiary Education (2004)

Type of education Age group	Upper Secondary		Tertiary	
	25–64	25–34	25–64	25–34
Australia	64	77	31	36
Austria	80	87	18	20
Belgium	64	80	30	41
Canada	84	91	45	53
Czech Republic	**89**	**94**	**12**	**13**
Denmark	81	86	32	35
Finland	78	89	34	38
France	65	80	24	38
Germany	84	85	25	23
Greece	56	73	21	25
Hungary	75	84	17	19
Iceland	60	68	28	31
Ireland	63	79	28	40
Italy	48	64	11	15
Japan**	84	94	37	52
Korea	74	97	30	49
Luxembourg	62	74	23	31
Mexico	23	25	16	19
Netherlands	71	80	29	34
New Zealand	78	85	25	28
Norway	88	96	32	39
Poland	50	60	16	23
Portugal	25	40	13	19
Slovak Republic	85	94	12	14
Spain	45	61	26	38
Sweden	83	91	35	42
Switzerland	85	89	28	30
Turkey	26	33	9	11
United Kingdom***	65	70	26	31
United States	88	87	39	39
OECD average	**67**	**77**	**25**	**31**

* Excluding ISCED 3C short programmes.
** Year of reference 2003.
*** Including some ISCED 3C short programmes.
Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2006).

production of tertiary education. They continue being highly over-enrolled, while a small proportion of private college students do not get any public support. Over the last two decades, approximately one half of the applicants to the public tertiary system are rejected each year.

The main positive development in this area comes from the establishment of the so-called higher professional schools, which typically provide two years of education leading to various specialised diplomas in profes-

sional fields. Although a number of these schools could be considered as providing a tertiary level of education, they operate in the framework of secondary schooling and cannot award Bachelor degrees.

Compared to the EU15 countries, participation in life-long learning remains very low in the Czech Republic, especially among the less educated and unemployed, although it is not dramatically different from that in other new EU member states.

IV.2 Employment, Unemployment, and Wages

Among the eight new EU members, the Czech Republic traditionally has a high employment rate (i.e., the fraction of the population aged 15–64 employed). Even though some EU8 economies, such as Hungary, have similar unemployment rates, these occur on the background of much lower labor market participation. In 2006, the overall Czech employment rate stood at 65.3%, somewhat below the EU15 average of 66% and somewhat above the EU27 average of 64.3%. Even though the employment rate of Czech women aged 25–54 with less than a tertiary level of education is traditionally high in comparison to the EU15, the Czech female employment rate is now somewhat below the EU15 average, in large part due to a generous early statutory retirement age of women who had children. Another unusual feature of Czech employment with respect to that of the EU15 economies is the very high share of manufacturing in total Czech employment and the extraordinarily low incidence of part-time work. In fact, Czech employment rates expressed in full-time

Table IV.2.1 Employment Rates (%)

CR	Age group 15–64		Age group 60–64	
	Men	**Women**	**Men**	**Women**
2000	73.1	56.8	23.5	11.2
2006	73.7	56.8	34.9	12.7

EU27	Age group 15–64		Age group 60–64	
	Men	**Women**	**Men**	**Women**
2000	70.7	53.6	30.9	15.8
2006	71.6	57.1	36.3	20.2

EU15	Age group 15–64		Age group 60–64	
	Men	**Women**	**Men**	**Women**
2000	72.5	53.9	30.9	14.8
2006	73.5	58.4	37.5	21.4

* Employment rate = Employed/Population in give age group*100 (%).

Source: Indicators for monitoring the Employment Guidelines 2007 compendium http://ec.europa.eu/employment_social/ employment_strategy/docindic_en.htm

equivalents are much higher than those of the EU15, for both men and women.

There have been declines in Czech aggregate employment rates between 2000 and 2004, mainly caused by longer participation in education and hence declining employment rates for those aged 16–24 with less

Figure IV.2.4 Wage and Employment Annual Growth Rates (%)
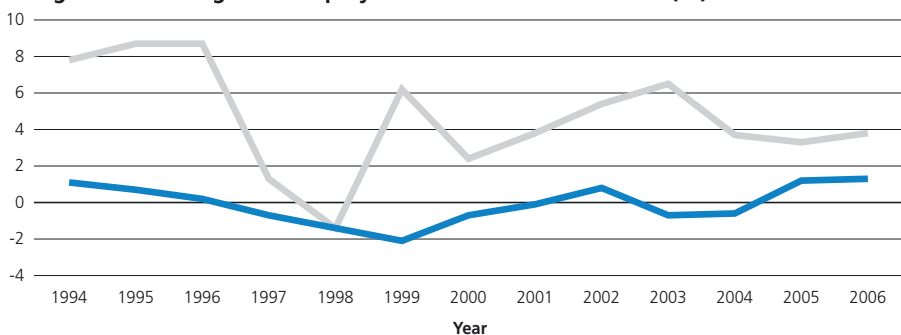
Source: CSU

▬▬ Employment annual growth rate ▬▬ Wage annual growth rate

than a tertiary level of education. However, the employment rate is slowly growing since 2005, thanks to the sustained economic growth, such that it surpassed its 2001 level in 2006. In fact, total employment grew robustly by 1.6% in both 2005 and 2006. Correspondingly, the (ILO) unemployment rate (for those aged 15–64) is declining and reached only 6.1% in the first quarter of 2007, a 1.9 percentage point drop year-to-year. While the overall unemployment rate is thus lower than both the EU15 and the EU27 average, the long-term unemployment rate is high at 3.9% in 2006, compared to both the EU15 average of 3.1% and the EU-7 average of 3.6%. This may be due to ineffective labor market institutions (see the next section).

The recent improvement in employment and unemployment indicators occurred, not surprisingly, while wage growth has been slow. Czech real wage growth stood between 3 and 4 percent between 2004 and 2006, i.e. below the growth rates of labor productivity.

Table IV.2.2 Aggregate Productivity, Labor Costs and their Structure

	Czech Republic	Slovak Republic	Poland	Hungary	Germany	Portugal
Labor Costs						
Total hourly labor costs in EUR	5.4	3.6	5.3	4.5	26.9	9.0
Productivity						
GDP per hour worked (EU-15 = 100%, PPS)[a]	45	50	38		103	59
GDP per worker (EU-15 = 100%, PPS)	57	55	47	62	94	64
Structure of Labor Costs						
Total social security contribution rate, 2003[b]	47.5	50.8	45.4	49.6	42.0	34.8
Total tax wedge = contribution rates + income tax rate[c]	59.1	57.1	51.6	62.6	62.9	40.4

Notes: a) Values as of 2002.
  b) Summation of pension, employment policy, health insurance and other contribution rates.
  c) Last two rows relate to an average-wage non-married childless production worker.

Sources: Eurostat, OECD (Taxing Wages)

Importantly, however, recent extraordinary wage growth demands by, for example, trade unions in the automaker Volkswagen-Škoda signal some potential for stronger real wage growth in the future. Collective wage bargaining occurs in 80% of enterprises with over 250 employees.

The sectors contributing the most to the growing employment in recent years have been manufacturing, private services and the public sector. Contrary to the former plans to make the public sector more efficient, its total employment grew in recent years. While a part of the rise in the number of state bureaucrats corresponds to the new EU-related agenda at the central level, much of it is apparently due to the partial transfer of administrative agenda to the regional governments, when the establishment of new offices at the regional level was not accompanied by a corresponding slashing of central-level administration staffing. Finally, we would also blame the employment hikes in the public sector on the lack of pressure it faces to improve its productivity.

The high employment rates, in comparison to most other EU8 economies, are in large part likely related to the low level of Czech labor costs, relative to productivity, even though this advantage has been shrinking

in recent years due to the Czech crown's continuous appreciation. The Czech total labor costs (measured in euro using exchange rates) are only somewhat higher than those of most EU8 economies and continue to be much below the labor costs typical of the EU15. At the same time, a Czech worker's total output (measured by GDP per worker in *purchasing power standard*) is, thanks to the lower Czech price level, closer to the EU15 average than the Czech labor cost is. However, according to the OECD's Taxing Wages, the structure of labor costs in the Czech lands is very similar to that of the most developed economies and is characterized by high contribution rates and a high total tax wedge. The Czech tax wedge (defined as the ratio of income tax and social security contributions of both employer and employee to total labor costs) is particularly high in an international comparison when calculated not for the average production worker, but for a worker making only two thirds of the average wage. Given the limited downward wage flexibility among low-earners, this tax burden may be work-discouraging for low-education low-earners. Finally, labor costs in euro grow not only because of CZK appreciation but also because of the steady growth of real CZK wages.

Czech Occupational Gender Segregation

(Based on Stepan Jurajda and Michal Franta: Occupational Gender Segregation in the Czech Republic. CERGE-EI Discussion Paper No. 162, 2006, forthcoming in the Czech Journal of Economics and Finance (Finance a úvěr).)

One of the most clearly established labor-market gender facts is that women and men tend to concentrate in different occupations and industries. The differential concentration of women in certain types of employment may be a matter of gender-specific preferences and choice. It could also be the result of gender stereotyping or discrimination. So far, there is little evidence available on the structure and dynamics of gender segregation in post-communist

countries. In this paper, we provide a detailed description of Czech occupational gender segregation on the background of changing overall employment patterns and we put it in perspective by carrying out several international comparisons.

First, we show that the employment rate of the large group of Czech women aged 25–54 with less than a tertiary level of education was substantially higher in comparison with the EU15 in 1999. Second, we calculate the Duncan index of Czech occupational gender segregation at various employment divisions and show that it is slowly declining during the whole period of 1994 to 2004. This decline in gender occupational dissimilarity is driven by changes in the gender composition of occupations, not by a changing occupational structure of the economy.

Most importantly, we find that occupational gender segregation in the Czech Republic decreases only among those aged under 35, and that this decline is rapid. For young tertiary educated, this decline could be related to their decreasing gender dissimilarity in the subject of study. The decline in occupational segregation among young workers makes the Czech degree and structure of occupational gender segregation converge to the EU15 average because it diminishes the only major difference in segregation between the EU15 and the Czech Republic observed in a 1999 comparison. Czech occupational gender dissimilarity is more stable for older cohorts where it was already at the EU15 level in 1999. Similar to other studies, we therefore find little difference in the gender occupational employment patterns of post-communist economies and developed European market economies.

IV.3 Labor Market Institutions and Policy

How does the Czech labor market compare to others in terms of its flexibility and security? Looking at dismissal protection, the OECD ranks the Czech Republic third out of 18 countries in terms of the strictness of the conditions for the dismissal of individual employees on regular (permanent) contracts. On the other hand, Czech Employment Protection Legislation is at an intermediate level in an EU-wide comparison when it comes to regulating collective dismissals and is even less strict for temporary contracts.

Only a small share of Czech contracts are temporary in an EU-wide comparison, however, which could be due to the maximum cumulative period of two years for which fixed-term contracts can be signed. The Czech

costs of dismissing an employee with a long firm-specific tenure are at an intermediate level in an international comparison, but, surprisingly, these costs do not decline with shorter tenure as is common in most developed countries. The fact that dismissal conditions are not graded according to the duration of employment provides a powerful detriment to hiring new workers when employers face high uncertainty in demand for their output.

Unfortunately, these weaknesses of contractual flexibility are not remedied by the new Labor Code, which became effective in January 2007. In fact, the new Code mainly codifies all of the existing amendments and contains little change in the main employ-

Figure IV.3.1 Costs of individual termination of an open-ended contract by employment contract duration (number of days for which wage is paid) in 2006.
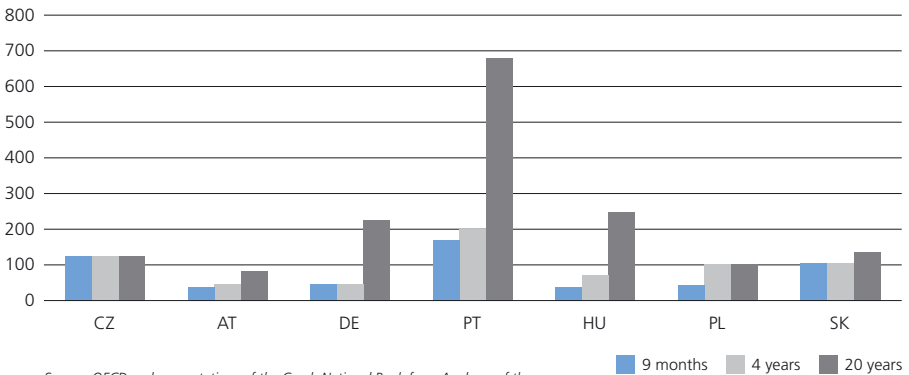
Source: OECD and computations of the Czech National Bank from Analyses of the Czech Republic's current economic alignment with the euro area 2007.
Note: Sum of data for days of notice, severance pay and delay to start of notice. 2006 data. CZ and SR average for layoffs due to redundancy a other reasons; AT: average for individuals with higher and lower qualification.

ment protection provisions (both in terms of OECD and World Bank indicators). On the other hand, the new Labor Code did strengthen the trade unions' position. Trade unions have had much influence over labor market policy formation under the previous ČSSD governments.

The scale and scope of active labor market policies in the Czech Republic is extraordinarily low; furthermore, it is not integrated into comprehensive activation strategies including job search requirements. On the other hand, the Czech system of social assistance is extensive and successfully alleviates

Table IV.3.1 Employment protection indices (EPL)[a]

	Permanent employm.[b]		Temporary employm.[c]		Collective dismissals[d]		Overall index[e]	
	late 1990s	2007	late 1990s	2007	late 1990s	2007	late 1990s	2007
CZ	**3.3**	**3.2[f]**	**0.5**	**0.5**	**2.1**	**2.1**	**1.9**	**1.9**
AT	2.9	2.4	1.5	1.5	3.3	3.3	2.4	2.2
DE	2.7	2.7	2.3	1.8	3.5	3.8	2.6	2.5
PT	4.3	4.3	3.0	2.8	3.6	3.6	3.7	3.5
HU	1.9	1.9	0.6	1.1	2.9	2.9	1.5	1.7
PL	2.2	2.2	0.8	1.3	4.1	4.1	1.9	2.1
SK	3.6	3.5	1.1	0.4	3.3	2.5	2.5	2.0

Notes: a) The indices take values ranging from 1 to 6, a higher value meaning greater employment protection.
b) Protection against individual dismissal.
c) Fixed-term contracts, temporary work agencies.
d) Relative to individual dismissals.
e) Weighted average of indicators of permanent employment, temporary employment and collective dismissals.
f) Change effective from January 2007.

Source: OECD (2004), CNB

poverty; unfortunately, it also makes the comparison of market wages with the total level of available social benefits work-discouraging, especially for families with children. The reason is a combination of the traditionally high level of labor-income taxation for low-wage earners with the generous, mostly unconditional level of social transfers (welfare benefits). Using the net replacement rate (the ratio of net household income when the person under consideration is jobless to that when the same person has a job) to measure the extent to which the combination of taxes and benefits affects the financial gain from work and thereby the motivation of unemployed or inactive persons to enter employment, the incentive to accept employment for short-term unemployed people in the Czech Republic is similar to that observed in other EU countries. However, the financial motivation for seeking jobs among long-term unemployed people is weak in the Czech Republic in an international comparison, especially for low-income families with children. This observation can account for the high Czech long-term unemployment rates.

A recent positive policy change in this area was the reduction of personal income tax rates in the two bottom tax brackets and the introduction of child-related tax deductions somewhat reminiscent of the earned income tax credit used in, for example, the U.S. These changes, effective as of 2006, make work income higher in comparison to welfare income and are, therefore, likely to support the labor-market participation of low-wage workers.

Another recently approved pro-flexibility policy, whose introduction was delayed, however, is the change in the sickness insurance scheme aimed at shifting the monitoring and incentive-setting agenda of short-term illnesses from the state to employers. The new legislation, coming into effect during 2008–2009, puts the financial responsibility where the ability to monitor and prevent short-term sickness is – at the workplace, and is therefore expected to reduce the widespread misuse of the generous sick-leave benefit system by workers as well as firms.

Another key area of labor market policy is immigration. Given the low fertility rate, the high Czech employment rate and the

Table IV.3.2 Overall labor taxation [a]

	100% of average wage				67% of average wage			
	2000	**2004**	**2005**	**Change[b]**	**2000**	**2004**	**2005**	**Change[b]**
CZ	**42.7**	**43.5**	**43.8**	**0.2**	**41.4**	**41.9**	**42.1**	**0.2**
AT	47.3	47.5	47.4	0.1	43.2	43.4	42.5	0.0
DE	53.9	53.3	51.8	-0.3	48.6	47.9	46.7	-0.3
PT	37.3	36.8	36.2	-0.1	33.2	32.4	31.7	-0.2
HU	52.7	51.8	50.5	-0.6	48.5	44.8	42.9	-1.2
PL	43.2	43.3	43.6	0.1	42.2	42.2	42.4	0.1
SK	41.8	42.5	38.3	-0.5	40.6	39.6	35.3	-0.9

Notes: a) Income tax and social security contributions paid by employees and employers as a percentage of total labour costs. Data for employees (individuals without children) earning 100% (left part of the table) and 67% (right part of the table) of the average wage.
b) Average annual change in percentage points for 2000–2004.

Source: OECD (2006b), CNB calculation

particularly low tertiary education attainment rate of the Czech labor force, (skill-based) immigration is one of the key possible channels of increasing aggregate labor supply. As of mid-2007, there were about 350,000 officially registered foreigners (about 3.5 percent of the total population), of which about 150,000 had permanent residency. This is a strong increase on the total 280,000 foreigners registered as of the end of 2005. The largest three nationality groups in order of size are Ukrainians, Slovaks and Vietnamese. Unfortunately, the administration of working permits is corruption-prone and exceedingly hostile. There are also no effective government programs in place for attracting skilled foreign labor.

Labor market policies will be affected by the ongoing fiscal reforms unveiled by the new Czech government in April 2007. The first reform packages to be put into effect in 2008 are primarily driven by the need to stabilize the budget deficit. The reform package brings reductions in social and sickness benefits, which go only some way towards reversing the pre-2006 election increases. Importantly, no social benefits with the exception of pensions will be indexed to the price level. A new scheme of parental allowances is to increase the rate of the re-employment of mothers. It remains to be seen whether the more comprehensive reform plans envisaged in April 2007 will be implemented and in what form.

IV.4 Labor Earnings Compared to the EU

Annual earnings of the Czech population employed in industry and services in 2002 were almost four times lower than the EU25

average. When the purchasing power of currencies is taken into account, the difference between the Czech Republic and the EU25

Table IV.4.1 Annual earnings (EUR) in industry and services in 2002 by level of education[1]

Country	Total		Lower secondary education (EUR)	Upper secondary education (EUR)	Tertiary education (EUR)
	EUR	Purchasing Power Standard (PPS)			
EU 25	28,020	28,020	21,300	27,190	42,830
Czech Republic	**7,210**	**13,950**	**4,920**	**6,450**	**12,880**
Estonia	4,930	9,420	3,350	4,150	7,400
Lithuania	4,100	8,320	2,930	3,230	5,710
Latvia	3,620	7,170	2,710	2,950	5,620
Hungary	5,910	11,020	3,940	5,100	13,770
Poland	7,070	11,950	5,420	6,750	13,150
Slovakia	5,710	13,130	3,620	4,910	10,020
Slovenia	11,280	16,420	7,870	10,230	22,750

[1] Excluding public administration.
Source: Eurostat

decreases significantly, with the earnings of Czech population being two times lower than in the EU25. Among Central and Eastern European Countries that entered the EU in 2004, the Czech Republic belongs to the group of countries with the highest average earnings.

The employed population with lower secondary education attains three fourths of the average earnings of those with upper secondary education in the Czech Republic in industry and services. A similar pattern is observable also for the average of the EU25. In the case of the tertiary educated population, the situation changes. Czech tertiary educated population earnings, similarly to other EU8 countries, are twofold higher than the earnings of the population with upper secondary education. In the EU25, the difference is smaller – those with upper secondary education earn almost two thirds of the average earnings of the tertiary educated.

V. PUBLIC SECTOR

V.1 Fiscal Reform

In early 2007, the center-right government proposed a package of fiscal changes that should save the public budget from the worst-case scenario of an unsustainable debt path. After much political wrangling, the government did succeed in pushing the package through the legislature, and some major changes in the tax laws are coming into force in 2008.

Overall, Czech public finances are in bad shape. The consolidated deficit of the public sector budgets is expected to reach 4% of GDP in 2007, and it will not fall below the 3% threshold required for the adoption of the Euro by 2010 unless structural changes are introduced. Therefore the most important goal of the reform was to reach a sustainable debt path and to lower the deficit to 3% of GDP as soon as 2008.

The second major goal of the reform was to introduce a flat income tax, a flagship of ODS's program in the 2006 election. The new flat-tax rate is 15%. However, the definition of taxable income is also going to change, and therefore the new tax rate is not fully comparable to the current schedule of progressive marginal tax rates that range from 12 to 32%. The new taxable income will include the social security and health insurance taxes paid by both employer and employee that are currently deductible from taxable income. According to our calculations, the new tax rate would be equivalent to a 23.5 % tax rate using the current definition of taxable income.

The change in the marginal tax rate is probably the most visible, but not the most dramatic, step. In order to compensate low income workers for a higher marginal tax rate (currently 12%), the new tax law dramatically increases the tax credits from the current level of 7,200 CZK to 24,840 CZK for each working spouse, from 6,000 CZK to 10,440 CZK for each child, and from 4,200 CZK to 24,840 CZK for a non-working spouse. Our simulations of the impact of the tax reform on different income levels show that, depending on their marital status and the ability to claim other deductions, most workers with average or below-average wages will not pay any income tax at all.

The reform does not bring any changes in the level of payroll taxes (i.e. social security and health insurance taxes), which in fact impose the biggest tax burden on labor. However, the reform introduces a cap on taxable income for payroll taxes that is common in advanced countries, but in the Czech Republic so far it is applied only to self-employed entrepreneurs. According to the new tax law, earnings that exceed 84,000 CZK per month will not be subject to the payroll tax. This measure should mitigate the strong redistribution in the current Czech social security system in which workers with high earnings have to pay additional taxes if their earnings rise but do not receive additional benefits from the system. The same cap on payroll taxes would apply to self-employed entrepreneurs as well. For them, however, the new

cap will be twice as high as the current one, and therefore those with annual incomes above 1 million CZK will pay more (as much as 200,000 CZK) in payroll taxes than they do today.

The corporate income tax rate should continue the decreasing trend from the current 24% to 19% by 2010.

The tax bases of both the corporate and personal income taxes will be broadened as the tax reform legislation eliminated a number of exemptions and deductions.

The tax reform shifts the tax burden from direct to indirect taxes. The reduced rate of the value added tax (VAT) which applies to more basic items like food and housing will increase from 5% to 9 %.

The expenditure side of the public budget is much less affected by the reform. In health care, the government introduces fees for drug prescriptions, appointment with a general practitioner or a specialist doctor, and for each day spent in hospital. The fees are somewhat symbolic (30 CZK for seeing a doctor, 60 CZK per day spent in a hospital) and they are expected to produce only 4 billion CZK (which, for comparison, represents 2% of the total revenue from the health insurance tax). However, they represent an important step towards eliminating the obvious overuse of health care.

There are some minor changes in social allowances. They at least partially offset huge increases in maternity benefits and other social expenditures adopted by all parliamentary parties before the 2006 election. The proposed changes should save less than a half of the 30 billion CZK cost of these pre-election spending promises. The sickness leave benefits will be cut as well. Namely, they will not be paid for the first three days of sickness leave. This should reduce the

monetary incentive to stay at home without a real health problem – a practice that is allegedly very prevalent and which puts Czech workers on top of the European statistics for sickness and work absence. There are no major changes in the pension system in the approved legislature, but they are planned toward the end of the political cycle. This timing makes them fragile because of the usually heavy pre-election campaigning.

In general, the reform is not going to solve the major causes of the steady budget deficits, namely the growing pension and other social expenditures and a maze of incoherent social expenditures and tax incentives that redistribute income in all directions, and not just simply from the rich to the poor. (For example, tax credits for children coexist with several social benefits that are conditional on having children. Only the richer taxpayers can use the tax credits, while both the poor and the middle classes collect the child benefits.)

The approved reform does remove some of the inefficiencies of the current system as it reduces the dispersion of the tax rates and cuts the top marginal tax rates. Its positive side effect may be the attraction of high skilled workers from abroad. The fairly low flat tax and the payroll tax cap will improve the financial rewards of working in the Czech Republic compared to other EU countries for workers with high earnings.

The reform can hardly be labeled as "radical", although it is probably as far as the government could get given its fragile position in the Parliament. The government definitely deserves credit for introducing fees for some health care services, a highly unpopular step that all previous governments cautiously avoided. On the other hand, the government backed off too easily when interest groups started to lobby over the proposed list of tax

exemptions and deductions that should be eliminated (e.g. food vouchers and tickets for employees of public transportation companies). And as for the health care fees, they also may have a short life, albeit for a different reason. The Social Democratic MPs clearly declared that they will challenge them in the Constitutional Court on the grounds that they violate the Charter of Fundamental Rights and Freedoms which, at least in its literal wording, provides that citizens have a right to "free medical care".

V.2 Social Security

Figure V.2.1 Ratio between Average Pension and Average Wage

Source: The government of the Czech Republic

Average pension/average wage ratio
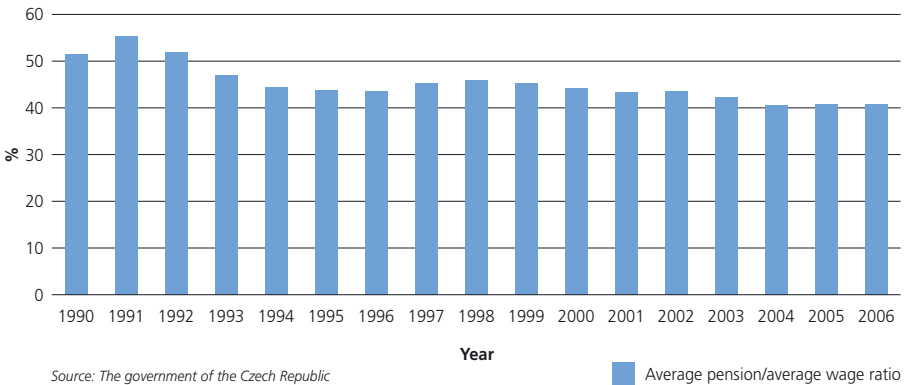
The Czech Republic has at present 2.7 million people receiving social security-financed pensions (this number includes old-age pensions, disability pensions, and orphan and widow(er) pensions); the average old-age pension equals 41% of the average salary (this number has been decreasing, see Figure V.2.1 for details). Expenditures related to the system amount to 8.4% of GDP.

While the current main pillar of the pension system has technically existed since 1995 (the new Pension Insurance Act), it has a history going back more than 100 years. It can be characterized as a traditional centralized solidarity-based pay-as-you-go (PAYG) pension system with very high coverage (the basic system covers almost the whole population).

The system technically consists of two parts: (1) a mandatory PAYG system, and (2) an additional voluntary system of private pension funds (with state support) with about 3.8 million participants with an average monthly contribution of 436 CZK (22 USD) (see Table V.2.1 for details). Despite the existence of the second part, it is still the mandatory PAYG part that really matters for current pensioners and pensioners in the near future. The PAYG system is based on solidarity between generations, between active and non-active persons (specific cases of non-activity are excluded from the obligation to contribute), and between high and low earners; the system involves a relatively high level of redistribution.

Table V.2.1 Private Pension Insurance in the Czech Republic

		2000	2001	2002	2003	2004	2005	2006	2007*
Private pension insurance	Number of policies	2,372,117	2,534,436	2,621,881	2,739,556	2,963,730	3,279,727	3,593,645	3,771,732
New private pension insurance	Number of policies	595,396	407,797	347,428	372,060	435,705	544,289	558,629	300,720
Private insurance with contrib. of employer	Number of policies	416,421	567,745	650,209	727,992	801,627	927,930	1,028,850	1,088,948
State support total	Billions CZK	2,470	2,658	2,770	2,930	3,222	3,683	4,162	2,261
Average monthly state contribution	CZK	88.98	90.24	89.83	>96.02	97.73	98.65	102.19	104.08
Average monthly contrib. of a participant	CZK	326.17	340.27	354.02	383.69	396.84	407.9	430.75	436.39

Source: MFCR

The system does not seem unsuccessful on the surface: poverty among the elderly is relatively low and the system currently operates with a surplus. However, the Czech pension system faces very similar challenges and problems as pension systems of other EU countries with PAYG schemes. First, it faces changing demographic trends such as a low birth rate, increasing life expectancy and the resulting ageing of the population (one of the fastest in Europe), which make the current parameters of the system unsustainable. Second, it faces new challenges due to the increasing mobility of labor within the EU.

According to current demographic projections, the pension system would go into a deficit around 2020 and the deficit would

then accelerate very fast (by 2050, the annual deficit would amount to about 4% of GDP and the cumulative debt to about 43% of GDP – see Table V.2.2 for the original simulations of the Bezděk Commission). Without any radical change, the deficits will either become excessive, or the pension system simply will not be up to providing the level of support expected by the public. As the implementation of deep reforms typically requires adaptation and transition periods, the time for such a reform is running out. Other new EU member countries that were in a similar situation a few years ago (Slovakia, Hungary, Poland, Estonia, Slovenia) have already initiated their reforms typically consisting of a mix of measures modifying the PAYG system

Table V.2.2 Expected development of the unreformed system

	2005	2010	2020	2030	2040	2050	2100
Contributions (% of gross wage)	28.0	28.0	28.0	28.0	28.0	28.0	28.0
Revenues of the system (% of GDP)	8.5	8.4	8.4	8.4	8.4	8.4	8.4
Expenditures (% of GDP)	8.4	8.0	8.2	9.1	11.0	12.4	13.0
Balance (% of GDP)	0.2	0.4	0.2	-0.7	-2.6	-4.0	-4.5
Cummulative balance (% of GDP)	0.3	2.4	6.3	4.4	-12.0	-42.7	-244.1
Pension to wage ration (%)	42.1	39.7	37.4	37.0	37.9	38.2	38.0

Source: Report of the 'Bezděk's Commission'

(increasing the retirement age) and increasing the role of other sources of pensions (private pension funds).

Recent Reforms and Reform Proposals

The fact that the Czech Republic is still discussing pension reform does not mean that there have not been any modifications of the current system recently. Important changes have been made, such as the detachment of the accounting of the pension system from the state budget (1995), an increase of the retirement age (2003), and an introduction of the indexation of pensions. However, a decisive step that would really change the trend of the development is still missing.

Even though the funded system seems to be an appealing solution to many of the troubles of the Czech PAYG system, a full transition to a funded system is unlikely as it does not seem politically viable with the recent distribution of political power. Especially older Czech citizens remain rather conservative, which means that they take the state-provided pension as the cornerstone of their provision for retirement and often distrust commercialized pension insurance. This conservatism and reliance on state pensions can probably be explained by historical experience such as the 1953 monetary reform that drastically diminished the value of the individual savings of a large part of the population, the impact of increased inflation after 1990 which had a similar impact, the troubles of the Czech banking and other deposit institutions during the mid-1990s, and also the low transparency of private pension funds in recent days.

All the main political parties seem to be aware of the looming problems of the pension system. A special expert commission, commonly referred to as Bezděk commission, was formed in 2004–2005 and given the task of analyzing possible reform scenarios based on the proposals of the main political parties. The commission came to the conclusion that a change is inevitable and suggested the year 2007 as a suitable starting point for the reforms. The solutions preferred by the individual participating political parties differed, but they more or less suggested that the PAYG principle should be preserved with modifications such as increasing the retirement age, but at the same time it could be supplemented by additional components. ODS (the strongest party in the current government) at that time preferred a uniform level of basic pensions guaranteed by the state (20% of the average wage) and assumed that decreasing compulsory contributions would open more space for private insurance. ČSSD (the strongest opposition party after 2006) suggested a stronger role of PAYG with individualization in the form of "virtual" individual accounts. Only the Communist Party assumed preserving the original PAYG with some tweaking of its basic parameters. All the participating parties also agreed that the retirement age must be increased.

The current coalition government led by Prime Minister Topolánek (ODS) presents itself as the reform government and it has declared the reform of public finances (including the reform of pensions) as its primary goal. The government's plan of reform consists of three stages and it is to be launched in 2007.

The first stage involves mainly parametric changes that would delay the solvency problems and create more time for reforms. Corresponding changes are being discussed in Parliament in 2007. This stage specifically

includes: (1) increasing the retirement age to 65 years for everyone (under the current rules, the retirement age for women with children is lower than for men and childless women (59–62 years depending on the number of children vs. 63 years); (2) changing the calculation of the length of contribution period (studying should no longer count as working and contributing); (3) increasing the minimum length of contribution necessary for the entitlement to a pension benefit to 35 years; (4) introducing the option to receive a partial pension benefit alongside with working (with a subsequent increase in the benefit); (5) changing the benefits for the disabled people.

The second stage introduces changes in both the basic PAYG and the supplementary privately funded system. A blueprint for the changes should be prepared in 2007 and the required legal framework should be drafted in 2008. The main steps should include: (1) creating reserves for the reform; (2) decreasing the payroll tax rate and (3) improving the regulation of private pension funds.

The third stage deals with fundamental changes, mainly a creation of the core second pillar of the pension system with the possibility to opt-out from the PAYG system. A blueprint of the changes should be prepared in 2008 and the required legal framework should be drafted in 2009.

Future Development

The current government has declared its will to push through a real reform. However, the real power of the government is limit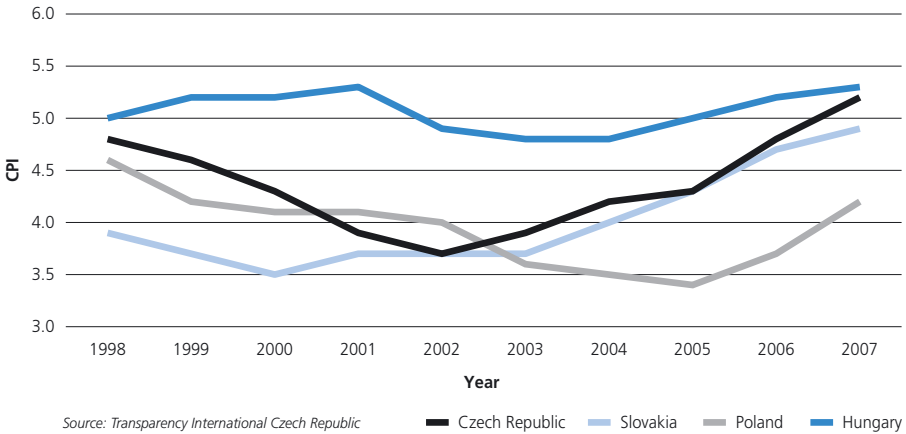ed because the government consists of three parties and it is supported by a rather fragile "majority" in the Lower House of the Parliament. Even though other political parties also expressed their general support for the, the opinions on the desirability of particular components of the suggested mix of policies differ. Moreover, the weak position of the government in the Parliament has intensified the rivalry between the government and the main opposition party (ČSSD) to the point that the opposition may not be willing to support deeper reforms (especially including some unpopular measures) even if the proposals are not substantially different from its own original proposals. The current government has also already spent a substantial amount of energy on the attempt to push through the reform of the tax and social welfare systems. Although these reform steps have been successfully adopted by the Parliament, the resulting reform was a watered-down version of the original radical proposals and it still led to substantial tensions within the coalition parties.

If we take into account the political reality and the fact that the crisis of the pension system is not imminent, it is probable that the government is likely to succeed with less controversial piecemeal steps (such as the ones suggested under the first stage of the pension reform program). As far as the steps toward a fundamental pension reform are concerned, the government may prefer a gradual preparation of the public for the changes, such as explaining the need for reforms and improving the regulation (and public perception) of commercialized pension insurance.

odkaz na graf V.3.3 -> myšleno V.3.1?

V.3 Corruption

Figure V.3.1 Corruption Perception Index of V4 countries

Source: Transparency International Czech Republic — Czech Republic — Slovakia — Poland — Hungary

According to the 2007 release of the Transparency International's Corruption Perceptions Index (CPI), the Czech Republic continues in a moderate trend toward being less corrupt, improving its rating by 0.4 compared to 2006. A score of 5.2[1] puts the Czech Republic, together with Italy, at 41st among 180 countries. It remains one of the most corrupt countries in the EU27, followed only by Slovakia, Lithuania, Latvia, Greece, Poland, and the new members Bulgaria and Romania.

A June 2007 poll of 1166 firms conducted by Hospodářská Komora and Hospodářské Noviny (HN) shows that corruption is most common in the construction industry. 77% of respondents report that they have experienced bribery and 40% of them confess having paid a bribe at least once. 50.3% of respondents admit being prone to pay a bribe to secure an order for their firm [HN, June 26,

2007]. A survey of 524 Prague citizens conducted for the Prague City Hall showed that 75% of respondents consider corruption as a serious problem. However, only 25% would report and 35% would likely report corruption to the authorities [Mladá Fronta Dnes (MFD), August 2, 2007]. All these results suggest that although people are aware of corruption and its consequences, they accept it as a common practice and their attitude to reporting it is rather vague.

The issue of addressing the problem of corruption in the Czech Republic is further complicated by the fact that only few cases really make it to court trial and the actual conviction rate is very low. In 2006, only about 50 percent of defendants accused of corruption were convicted and punished and over the last two years none of the big cases resulted in conviction [HN, June 19, 2007]. One example is the case of a board member

[1] On the scale form 0 to 10, where 10 corresponds to a country with no perceived corruption and 0 to a country with high perceived corruption.

of the Czech Consolidation Agency, Radka Kafková. She was charged with corruption in July 2006 on the suspicion of accepting a 560 million CZK (about 28 million USD) bribe in connection with a sale of a 3 billion CZK (150 million USD) claim of Cetus company to Arrwrise of Britain [HN, October 19, 2006]. She was later imprisoned, but released after three months as the police failed to progress with the investigation. Another example is the so-called Biolih (Biofuel) case, widely discussed in the media, and later leading to the so-called Kubice's report suggesting possible ties of ČSSD members to organized crime. The 15 million CZK (about 750,000 USD) suspected bribe was recently evidenced as being a loan whereupon the case has been dismissed [MFD, July 12, 2007].

In addition, even if prosecution leads to a conviction, a vast majority of (few) convicts receive a suspended sentence and are released on a probe. Naturally, such judicial practice does not enhance trust and creates the general belief that corrupt officers are untouchable and they will never be punished.

Besides these grand cases, petty corruption continues to thrive in the Czech Republic. There are several ongoing cases concerning the police, customs officers, city halls and mayors, and soccer referees and managers that regularly fill the pages of newspapers.

A long-awaited new conflict-of-interest law that finally came to force in January 2007 suggests the existence of a political will to tackle the problem. It extends the list of people who are obligated to report personal interests, acquired assets and other activities they are engaged in while holding an office. The new law also stipulates in detail sanctions to be imposed on public officials and other personal entities in case they disobey. However, the law has already been criticized for slip-ups such as a significantly narrowed domain of police officers obligated to report their assets and the lack of any retrospective declarations of assets for the years before 2007.

In June 2007, Topolánek's cabinet passed a proposal for a Criminal Law Amendment, which is now to be discussed in the Parliament. It increases prison sentences for accepting bribes to up to 12 years and for bribing to up to 2 years, or up to 5 years in cases involving significant (the proposal is not specific on this) financial gains. In addition, the culprit can be banned from future public service and a court may decide to confiscate his or her property. Besides, a more restrictive regulation on police tapping is considered. The proposed law also discusses an anticorruption phone line, the use of secret agents, the establishment of special courts and blacklists of firms convicted of corruption.

On the other hand, Parliament's Lower House rejected a proposal to limit politicians' immunity from criminal prosecution only to acts committed in the conduct of their public service. The Czech Republic thus remains a country with one of the highest protection levels for its legislators'; and legislators are clearly not willing to give it up.

According to the director of the local branch of Transparency International Adriana Krnáčová, the problem of corruption has for a long time been ignored in the Czech Republic. As she says, even the toughest legislation will not do the trick, if the police and courts of law will not provide effective enforcement independent of political pressures [HN, June 25, 2007].

V.4 Non-profit Sector

The Czech nonprofit sector comprises various legal forms, with foundations, foundation funds, public benefit organizations and civic associations being the four most important ones, accounting for one-half of nonprofit entities in the Czech Republic. There were 42,645 organizations with one of these four legal forms in 2005 (a 10% increase from 38,985 in 2004). In addition, there are other types of nonprofit entities such as the organizational units of civic associations or associations of owners of dwelling units that increases the total number of active nonprofit entities to 85,594, representing more than a 10% increase from 74,920 units active in 2004 (Czech Statistical Office).

Although the numbers of nonprofit entities in the Czech Republic have been growing since the 1990s, these numbers do not reflect the sector's economic importance. In 2004, the nonprofit sector had 72,700 (39,400) full-time-equivalent paid employees (without public universities), which represented 1.42% (0.77%) of total paid employment in the Czech Republic. The share of the nonprofit sector output on GDP was 1.17% (0.57%). These numbers suggest that in spite of the continuing growth in the number of nonprofit institutions, the size and economic importance of the Czech nonprofit sector is still relatively small. To compare, the nonprofit sector accounted for about 5% of U.S. GDP in 2004 and 4.7% of Belgian GDP in 2003.

According to the USAID report on the state of the nonprofit sector in 2006, public resources are the major source of funding for nonprofits, followed by donations from companies, foundations and individual donors. However, in most cases there is one major source (providing often about 80% of revenues), which does not ensure proper funding source diversification.

According to an official analysis of the funding of non-profits for 2005 (*Rozbor financování NNO z vybraných veřejných rozpočtů v roce 2005*), the total amount of funding from public budgets has increased slightly between 2004 and 2005. In 2005, nonprofits received 4,922 million CZK from the national and regional governments. Compared to 2004, support from the national government decreased by 841 million CZK, while the support from the regional governments increased by 417 million CZK. Thus, the overall support from the national and regional government decreased. It was partly compensated for by an increase in funding from municipal governments by 227 million CZK. This change in the revenue structure suggests a decentralization trend.

Individual philanthropy remains stable and does not represent a major source of funding for nonprofits. According to a survey performed by Factum Invenio in 2006, 66% of Czechs donated to nonprofits in support of humanitarian causes in the last two years. 52% reported they donated repeatedly. The Donors Message Service (DMS) introduced in 2004 remains an important tool for individual philanthropy. In the three years of its existence, it raised 156 million CZK via nearly 5.8 million sent DMSs.

According to the results reported in a recent paper (CERGE-EI Working Paper No. 312), corporate philanthropy in the Czech Republic increases over time. The same trend applies to both sponsoring and giving, two tools corporations typically use to support nonprofits.

It shows that larger corporations (in terms of employees or sales) both sponsor and give more. Contrary to expectations, foreign donors are not the leaders in philanthropy: even though they give more often, they give less. Similarly, firms operating at a local level are more philanthropic than firms operating at the international level: local firms participate more often in giving and they spend more on sponsoring. Interestingly, firms in Prague give less often, but when they do, they donate more funds.

In conclusion, corporate philanthropy in the Czech Republic is increasing and has a potential to become a major source of revenue for nonprofits. Positive news for the nonprofits is that philanthropy is not the domain of international firms only, but that smaller local firms are participating as well.

V.5 Defense

As a NATO member since 1999, the Czech Republic continues to enjoy the peace dividend stemming from security and resource-sharing within the alliance. With the admission into NATO of Slovakia in 2004, three out of four of the Czech Republic's neighbors are now NATO members themselves, with the only exception being Austria. This peace dividend is reflected in the abolition of the mandatory military service in 2004 and relatively low military expenditures as a share of GDP. The Czech Republic spent an estimated 1.81% of GDP on military expenditures in 2005, which is below the estimated world-wide average. However, in comparison to its neighbors and other EU members in a non-superpower status, the Czech Republic tends to spend somewhat more. Indeed, only countries with a less stable defense situation (Greece) and the traditional superpowers (France, UK) have significantly higher military expenditures relative to their GDP. The Ministry of Defense puts a more recent expenditure figure at 1.73% of GDP for 2006 (6.2% of central government expenditures), a continuous decrease from 2.61% in 1993.

The military forces of the Czech Republic consist of the army (the land force), the air force, and a set of support forces, operating under a joint command. Currently, the Czech Republic has military units on foreign missions in Kosovo, Bosnia and Herzegovina, Iraq, and Afghanistan.

The public debate in the domain of national defense over the last year has been

Table V.5.1 Military expenditures as a percentage of GDP

EU	Expenditures
Greece	4.3
France	2.6
United Kingdom	2.4
Slovakia	1.87
Czech Republic	1.81
Italy	1.8
Hungary	1.75
Poland	1.71
Germany	1.5
Austria	0.9
non-EU	**Expenditures**
China	4.3
United States	4.06
World	2.0

Source: CIA World Factbook, 2005 estimates.

dominated by the intention of the U.S. government to build a missile radar base in Brdy, about 60 kilometers southwest of Prague. This radar is supposed to be a part of the planned U.S. anti-missile defense system (the U.S. is currently negotiating with Poland over placing an interceptor missile base there). The U.S. government claims that this radar is to protect the U.S. and other NATO members against attacks from what it calls "rogue regimes", most notably Iran. Russia expressed strong disagreement with the project, arguing that the protective shield is targeted at its fleet of intercontinental ballistic missiles, hence upsetting the strategic balance of power. In direct talks with the U.S. government, Russian President Vladimir Putin warned that the entire set of military treaties that resulted from the end of the Cold War may be at stake should the U.S. continue with the planned construction

Against this backdrop of superpower politics, an intense internal debate has been raging within the country. Although issues such as the environmental impact of the base on its site and the surrounding area and the compensation of local municipalities have been brought up, a major sticking point in the debate has been whether a referendum should be held on the issue. Most recently, the opposition parties (Social Democrats and Communists) have been requesting such a referendum, whereas the government would prefer to avoid it. Currently, the debate continues, as does geological research on the planned site of the radar base.

VI. SECTORAL DEVELOPMENT

VI.1 Czech Capital Market

Figure VI.1.1 Development of the PSE PX index and trading of shares

Source: Source: Prague stock exchange
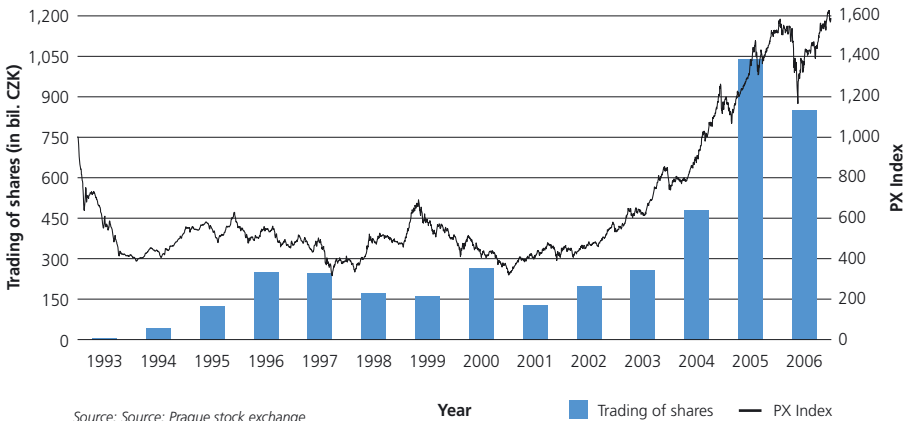
The development of the Czech capital market has been rather nonstandard due to the voucher privatization implemented at the beginning of the transition process. About 1,700 companies were introduced to the newly established Prague Stock Exchange (PSE) following the privatization. Unfortunately, market forces were not strong enough to cope with such a huge number of illiquid shares, and the expectations of establishing a strong market within a short period of time were not fulfilled. Instead, insider trading, price manipulation, fraud in the investment funds industry, abuses of minority shareholder rights and a low transparency prevailed in the mid-1990s. Measures taken by the PSE authorities that included the segmentation of the market, the delisting of illiquid shares

and introducing a new trading system (SPAD) for blue chips did not contribute to any significant improvement. Only the development since 2004, when the Czech Republic entered the EU, indicates that the market is becoming more standard in the sense that companies are starting to use it as a source of capital and investors as a place to invest their money. The first Initial Public Offering (IPO) took place in June 2004 and the volume of trades as well as the PX index value were growing significantly between 2003 and 2005.

However, the growth from the previous years was partly reversed in mid-2006, when the market reached its lowest level, losing almost 25% from the previous peak. Despite the volatility in the course of the year, however, the PX index ended up with an increase

in 2006 and its growth continued in 2007. In comparison to the developed markets that lost about 10% around mid-2006, the 25% was a significant decline, pointing out that the Prague market, due to the lack of large Czech institutional investors and the fact that retail investors heavily rely on trade on margins, is still more sensitive to changes on global markets. The total value of trades at the PSE decreased in 2006 and this decline is the consequence of the lower value of shares traded. Even though trading with shares doubled between 2004 and 2005 as a result of increased investors' interest because the Czech Republic entered the EU, this trend did not continue in 2006. The structure of share trading seems to be improving, however. Trade values of price generating segments have increased substantially, reaching 94.47% of all trades with shares, while in previous years (2003–2005) this was only about 60%. Nevertheless, similar to previous years, the majority of trades with shares (97%) was conducted on the main market, while secondary and free markets were not really active. Moreover, 91.6% of trades with shares were conducted in the SPAD system. As in previous years, the number of liquid shares on the PSE is low and only a few new companies are entering the market (two IPOs in 2006). They followed the first successful IPO of Zentiva (a pharmaceutical firm) that took place in June 2004. Zentiva is traded in SPAD; it also became a part of the PX index. There was no IPO on the PSE in 2005 if we do not

take into account the dual listings of the ORCO and CME shares. Then in December 2006, trading with shares of ECM Real Estate Investments A.G. (development of commercial and residential real estate) and Pegas Nonwovens (production of nonwoven textiles) started on the main market of the PSE.

Another novelty at the PSE in 2006 was the launch of investment certificates trading on the official free market at the beginning of October. In addition to this, trading of futures contracts under the PX index was launched. These financial instruments are traded on the regulated special stock exchange. The amounts of trades in this market have not been very high so far though. The analysts as well as the PSE authorities expect them to rise within several years when investors get used to these new instruments. This was also the case in Poland where trading with futures started in 1998 and the number of transactions increased 30 times within two years and then even doubled in the consecutive year. A similar trend applies to the total turnover value of futures trades.

In 2007 the PSE plans to start trading future electricity contracts. Even though the PSE was considered to be a target of acquisition for larger European stock exchanges in previous years, the situation has changed and the PSE announced its interest to compete for the 44% share of the Sofia stock exchange in Bulgaria that is going to be privatized.

Initial Public Offerings

Initial public offering (IPO) is the process of the primary public offering of shares leading to an entry into a stock market. It is becoming increasingly important for the future development of the Prague Stock Exchange, which still faces a shortage of liquid share issues. An IPO provides a company with additional capital but it can contribute to improving the structure of a company's liabilities as well. More publicly traded companies are also beneficial for the market as a whole, since the number of possibilities for investment increases. In addition, recent empirical studies confirm that financial market development is connected to a country's economic growth.

Several years ago, the number of shares traded on the PSE was decreasing; nowadays the situation seems to be improving gradually. Following the first IPO of Zentiva in 2004, there were two IPOs on the PSE in 2006. Nevertheless, in comparison to neighboring countries, the Czech Republic is falling behind significantly (see Table VI.1.1). The reasons for this kind of development are connected to the way the stock market was established. In the course of the voucher privatization, the market was created by an administrative decision that ignored the usual listing requirements. Moreover, due to the strong position of banks and relatively easy access to credit during the transition process, there was no need for a functioning capital market. Thus, the number of liquid share issues is still low on the PSE.

Comparison with the Warsaw stock exchange, the most successful of the region in terms of IPOs, paints the following picture: (1) the high number of IPOs in Warsaw is related to the participation of the small and medium-sized enterprises that are still missing on the PSE; (2) unlike in the Polish market, there is still a relatively low number of active small investors in Prague; (3) due to the institutional setting, Polish investment funds are much more active on the domestic stock exchange compared to Czech investment funds; (4) the Polish market has been created as a standard market, not as a by product of a voucher scheme as in the Czech Republic, meaning that Polish small

Table VI.1.1 Number of companies listed on the Warsaw and Budapest stock exchanges

	WARSAW STOCK EXCHANGE		BUDAPEST STOCK EXCHANGE	
	New listings	**Listed companies**	**New listings**	**Listed companies**
1990			6	6
1991	9	9	14	20
1992	7	16	3	23
1993	6	22	5	28
1994	22	44	12	40
1995	21	65	5	42
1996	18	83	6	45
1997	62	143	10	49
1998	57	198	8	55
1999	28	221	16	69
2000	13	225	1	62
2001	9	230	1	58
2002	5	216	0	49
2003	6	203	2	53
2004	36	230	1	47
2005	35	255	1	45
2006	38	284	3	43

Source: Warsaw Stock Exchange, Budapest Stock Exchange

investors have not experienced a negative sentiment resulting from the disappointment after the voucher privatization.

In Hungary, where the number of IPOs in not so high anymore, the state provides subsidies for the costs connected to processing the IPO. Several companies have benefited from this scheme during the last few years and thanks to this, there are at least two other IPOs expected in Budapest this year.

The above comparison with Warsaw and Budapest indicates that the PSE has a potential for further development and there are several possibilities for its support. A pension reform and the active role of pension funds (and other local institutional investors) would significantly contribute to further growth and most likely also increase the number of IPOs and stabilize the market. In addition, direct or indirect subsidies for companies considering IPOs would be very helpful. Last but not least, the stock exchange should be used to privatize the companies that are still owned by the state.

VI.2 Developments in the Telecommunications Industry

A new phase of liberalization in the telecommunications market of the Czech Republic began in May 2005, when the long-awaited Act on Electronic Communications finally came into force. Consequently, much work had to be accomplished in a very short time by the Czech Telecommunications Office to evaluate 18 key electronic communications markets in order to identify those operators with significant market power (SMP). By July 2006, a summary of SMP findings was published for all 18 markets. It was found that some operators did in fact have SMP. The process of notifying the affected operators began. Action was taken to impose certain remedies to ensure effective competition. The main steps were completed by the end of the year.

One of the main telecommunication firms, Telefonica O_2 Czech Republic (formed through the July 2006 merger of Cesky Telecom with mobile operator Eurotel Praha), was found to be an operator with SMP in 12 markets. These included the following: public fixed-line telephone networks and services, provision of public telephony networks and services, provision of leased-line services, and provision of data transmission services. In the market for public mobile telephone networks and services, the rivals of Telefonica O_2 Czech Republic, namely T-Mobile Czech Republic and Vodafone Czech Republic, were found to be operators with SMP as well.

Having three leaders rather than one, the country's mobile market can be viewed as the most competitive in the whole electronic communications sector. It remains an attractive source of revenue for operators despite slowing subscriber growth rates and increasing market maturity. Mobile operators continue to fight it out quarter by quarter and their results have been somewhat unpredictable. The market leader T-Mobile ended 2006 with just over 5 million subscribers (41% market share), barely ahead of Telefonica O_2, whose share of the market dropped to below 40%. Although Telefonica O_2 reported fewer net additions than its rival in the fourth quarter

– and in the year as a whole – the operator relied more on its rapidly expanding postpaid subscriber base, which now amounts to 1.9 million and 39% of its entire customer base. With overall mobile subscriber growth in the Czech Republic slowing down, T-Mobile appears to be following O_2's example and is shifting its focus from prepaid users to contract subscriptions; such a move will help to reduce its vulnerability to price competition in the prepaid sector. Meanwhile, Vodafone continues to perform well, adding 102,000 new subscribers in the last quarter of 2006 alone. In contrast to its two larger rivals, Vodafone's postpaid subscriber base amounts to a much larger 52.8% of its total subscriber base. In total, there were 12.3 million mobile subscribers representing nearly 121% penetration at the end of 2006. One of the most notable events in the Czech mobile market was the announcement that a fourth mobile operator, U:fon, was licensed and poised to enter the sector. U:fon, the operating arm of MobilKom, which has launched its CDMA services, does not seek to compete with its larger rivals in the mobile voice market, but in the data services market.

In fixed line services, Telefonica O_2 Czech Republic served 2.4 million customers at the end of 2006, including some 470,000 retail ADSL customers. Consequently, it accounted for more than 90% of the fixed-line market. However, it faced growing competition from alternative infrastructures, with cable operator UPC emerging as a major rival. The UPC's broadband user base is less than a third of the size of Telefonica's (UPC had 99,700 broadband internet subscribers at the end of September 2006), but the cable operator has an advantage in the triple-play market thanks to its 417,000 television subscribers. Furthermore, the anticipated merger between UPC and Karneval will swell UPC's total customer numbers to over 1 million, and further strengthen the alternative fixed-line operator market.

The major operator on the "alternative fixed-line operator scene", GTS Novera, which was created through the March 2005 merger of alternative fixed-line operators Aliatel and GTS Czech, continued the consolidation of its leading position in the first quarter of 2006 when it followed up the Contactel acquisition with the purchase of the Czech subsidiaries of Norway's Telenor ASA. Broadcaster České Radiokomunikace, which also had some extensive telecommunications operations, acquired the Czech subsidiary of Tele2 in 2006. České Radiokomunikace was itself acquired by private equity investors later in 2006. ISP Tiscali is also seeking to sell its Czech division.

Indeed, the fixed line broadband market is already becoming a more competitive landscape following the Telekom Austria unit Volný's recent acquisition of e-Tel and the first time entry of UK telecoms services reseller Euphony. Extending its business line to fixed networks in January 2007, the mobile operator Vodafone announced that it would offer fixed-line connectivity to the internet using ADSL as a result of a contract signed with České Radiokomunikace in May 2007. Vodafone aims to attract corporate clients to the fixed-line part of the operator's business so that it can compete more directly with competitor Telefónica O_2, which already offers ADSL services aside from its mobile operations.

Overall, the Czech telecom market is one of the most mature in the region, with well-developed services and infrastructure across its mobile, fixed-line and broadband sectors. Competition is growing in all these sectors, with alternative operators gaining size and strength through organic growth and M&A activity.

VI.3 Industrial Policy

Figure VI.3.1 Summary Innovation Index (SII) and Trends

Source: European Innovation Scoreboard 2006.   **Average growth rate of SII**
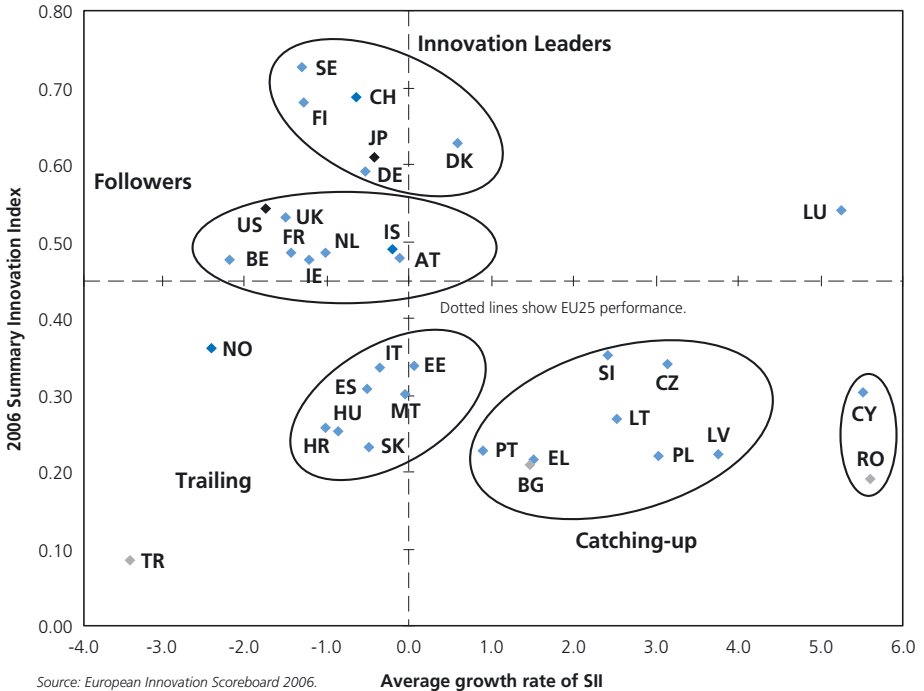
The parliamentary elections in 2006 won by the ODS brought a prolonged period of political negotiations. This prohibited the adoption of any significant policy measures and left the operation of ministries to their own bureaucratic inertia. It was not before the beginning of 2007 when Mirek Topolánek's team won the confidence of the Parliament, that the policy making process returned back to normal.

The industrial policy in the first half of 2007 could be characterized by the continuing shift of focus towards the support of medium and high-tech investments, a more balanced approach to domestic companies including small and medium-sized enterprises (SMEs) and a higher transparency. In this context, the Czech Republic benefited enormously from the EU accession three years earlier, which imposed higher transparency, compliance with the EU's strict rules for granting state aid and a detailed scrutiny of all forms of industrial support.

One notable departure from past industrial policies is the facilitation of innovations and multiparty cooperation through clusters. Even though the relative performance of the Czech Republic in terms of innovation has recently improved, the country still remains among the mediocre performers within the

EU25. This is consistent with Figure VI.3.1 showing the Summary Innovation Index for 2006 constructed by the EU DG Enterprise and Industry. As a partial response to this fact, the social-democratic government approved the National Cluster Strategy with the intention to increase the innovative capacity of the Czech Republic through the development of clusters, i.e., networks consisting of universities, research institutions and businesses.

The National Cluster Strategy approved in 2005 hopes to endorse the new as well as existing spontaneous public-private structures oriented on innovations, such as the cooperation between the Technical University and the Elmarco company that gave rise to the development of a unique nanofiber production technology. Another example is a project of an R&D center worth 750 million CZK, or a cluster centered around biotechnology research at universities and research institutes in Brno, Southern Moravia.

The adopted industrial policy of cluster development could potentially bring large benefits. The clusters favor competition and initiative as opposed to traditional policies protecting less-performing firms. Furthermore, universities' concerns for reputation should prevent the creation of purely exploitive cluster coalitions and thus ensure public resources will be spent more efficiently.

The success is not guaranteed, however, and will depend on a number of other factors. First of all, given the weak state of law enforcement in the Czech Republic and substantial flows of sensitive information between participating agents, clusters will not survive without the establishment of mutual trust. In some cases, universities complained that the companies used their partnerships to extract know-how without providing any corresponding counter-value.

The other limitation might be the selected scheme design and the administrator's capacities. The individual provisions should not motivate the creation of artificial cluster structures or provide financing beyond the take-off phase. Unlike in a number of existing programs, the program procedures should be transparent and not excessively time-consuming so that the program entry costs are reasonable and SMEs lacking larger administrative capacity are not disadvantaged. Furthermore, ex-post project monitoring affects ex-ante participation decisions of concerned agents. Some of the existing schemes targeting innovation have faced low response rates due to the intensive attention of tax collectors to the tax accounts of surprised program participants.

The key instrument of the cluster initiative is the 'Klastr' program launched by the CzechInvest agency, which entered its implementation phase in 2006 and should run until 2008. Since the program allows up to 75% of a project costs to be covered from EU structural funds, a sufficient administrative capacity on the part of applicants is necessary. For successful implementation, the cluster strategy should aim to coordinate its designated resources with other programs and funding available to entrepreneurs, so that the final objectives are met at reasonable public costs.

Despite the recent favorable shifts, the overall success of Czech industrial policy including the cluster program will, however, ultimately depend on the position of the new Minister of Industry and Trade Martin Říman. Shortly after assuming the office, he ordered a review of the current system of investment incentives and replaced the chief manager of CzechInvest in August 2007, claiming the agency lacked effective managerial supervision.

VI.4 Is There a Housing Bubble on the Czech Market?

House prices have recently been rising around the world, well ahead of inflation. Since the mid 1990's, they have increased by more than 50% in real terms in Australia, Britain, Ireland, the Netherlands, Spain and Sweden, and by 30% in the United States. The bullish real estate markets may have helped to hold off a worldwide recession but there were many indicators that the high real estate prices were not entirely supported by economic fundamentals. This view is supported by the recent development in the United States where the trend of increasing prices has been reversed due to problems with sub-prime mortgages. Many Central and Eastern European countries, including the Czech Republic, have experienced raising property values. This raises several issues. The first is whether there indeed is a bubble that can burst. The other is the question of what potential consequences of real estate price collapse would be. This article addresses the first question for the Czech economy and a feature article in this section offers a comprehensive approach for how to address the second issue using household level data.

Knowing whether there is a bubble is clearly important since a policy maker can guess the qualitative consequences of a burst such as a reduction in consumption followed by a recession. The first sign of a bubble is the rapidly increasing price of real estate. Using data from the Institute of Regional Information in Brno, the average price of a standardized 68 m² apartment in the Czech Republic increased by 27.6% in the 2001–2003 period and by 11.1% in the 2004–2006 period. The growth for prices in Prague for the same periods was 47.2% and 10.4%, respectively. A casual look at these numbers indicates that the shock from entering the European Union was anticipated and absorbed ex-ante. In any case, the growth slowed down significantly and the annual increase is now comparable to the inflation rate. However, the level of prices can still be high. Investigation of whether this is in fact the case leads us to the formal definition of a bubble that arises if there is a discrepancy between house prices and fundamentals.

The definition of fundamental variables reflects an underlying structural or a present-value model. These are the two most frequently used ways how to decide whether real estate is over-valued. The former is a simple demand and supply model where supply determinants include depreciation, construction costs, etc., and demand determinants are, among other things, income, interest rates, housing cost, and the user costs of owning a house. Here we will focus on two main determinants of demand and one of supply: income, mortgage rates, and construction costs (see Table VI.4.1). The increase of net disposable income and construction costs in 2001–2003 was 6.2% and 4.9%, respectively. While both the leftward shift of the supply curve and the rightward shift of the demand curve increased the prices of housing, it would not have been sufficient. What is missing from the Table is the boom in mortgage market that made mortgages available to a large portion of the population. This drove apartment prices up due to a higher demand for housing. This effect subsided in the subsequent three years during which the mortgage rates did not seem to affect the demand much since they were hovering around 5%. In the 2004–2006 period, income and construction costs together rose more

than housing prices, confirming the hypothesis that the previously fast growth was caused by establishing the mortgage market. From this perspective, the housing market does not seem overvalued though it is more likely that the housing price will go down than up.

Another perspective on the housing market is the present-value model that ties together asset prices with a stream of earnings related to a particular asset. This model views a house or an apartment as an investment vehicle with future rents determining the current prices. Predictions of this model are similar to yet another view which considers market segmentation, with apartments for rent on the one hand and apartments for purchase on the other. Both alternatives suggest that higher rents imply higher prices

(either because a purchase is a good investment or because renters purchase their own apartments) and vice-versa. Between 2001 and 2003, rents increased by 18.0% in the Czech Republic and by 36.2% in Prague (again using data from the Institute of Regional Information in Brno). Rents actually dropped in the subsequent three year-period, by 2.7% in the Czech Republic and by 7.6% in Prague. Putting together these numbers with the net disposable income and construction cost growth goes a long way towards explaining apartment prices. For example, the relevant numbers were 6.2% + 4.9% + 18.0% = 29.1%, which is comparable with the 27.6% apartment price growth from 2001 to 2003. This again supports the conclusion that the prices of apartments are not overvalued.

Table VI.4.1 Determinants of Housing Prices

	2001	2002	2003	2004	2005	2006
Net Disposable Income (mil CZK, 2000 prices)	1,750,744	1,790,709	1,858,831	1,914,389	2,019,537	2,132,085
Construction costs (index, average in 2005=100)	89.50015	91.82148	93.88489	97.40987	100.2	103.1
Mortgage Rates (new business, 5–10 year fixation)				5.03	4.87	5.35

Sources: http://dw.czso.cz/pls/rocenka/rocenka.indexnu
　　　　 http://www.czso.cz/csu/redakce.nsf/i/tab_1_indexy_cen_vyrobcu_prumer_r_2000_100/$File/cipccr101207_1.xls
　　　　 http://www.cnb.cz/cnb/STAT.ARADY_PKG.PARAMETRY_SESTAVY?p_cSest=942&p_ind=AABB&p_lang=EN

Analysis of the Czech Housing Market using Household Data

Based on "ARM or FRM: Which Mortgage Contract Is Better for Czech Households?" by Ivan Rybar and Petr Zemčík, CERGE-EI Discussion paper 183 and "The Impact of Mortgages, House Prices and Rents on Household Consumption in the Czech Republic" by Rastislav Seč and Petr Zemčík, CERGE-EI Discussion paper 185.

These two studies provide a much needed analysis of the Czech housing market from the perspective of a household using modern economic and econometric theory. The Czech housing market had undergone a boom since the late 1990s when the mortgage market came into existence. A second shock to house prices came due to the joining of the European Union in 2004. However, mainly due to the lack of adequate data, there were almost no studies

on how the house price appreciation affected household welfare and consumption. The first question is implicitly addressed in the first study that calibrates a life-cycle model to the Czech environment (including house prices). According to the calibrated model, a majority of Czech households should prefer fixed-rate mortgages to adjustable-rate mortgages due to the greater uncertainty associated with inflation and interest rates. The results reflect a relatively greater variation in inflation and interest rates in the Czech Republic over the last decade or so compared to developed economies such as the United States. An approach complementary to finite life-cycle models is a micro analysis of consumption data to investigate the impact of changing mortgage payments, rents, and house prices. This type of analysis addresses the question of the impact of house prices on household consumption and it was conducted in the second cited paper. This study combined data for individual households from an annually-conducted budget survey with data on house prices in 335 Czech regions. An empirical investigation resulted in one of the first insights of this type for an emerging market. It was found that rents decreased consumption for renters and house prices increased consumption for apartment owners.

VI.5 Research and Development

At the beginning of the 21st century, the Czech Republic remains one of the less R&D-intensive economies in Europe. As shown in Table VI.5.1, in 2005, the Czech Republic spent 1.42% of GDP on R&D. Although this is a significant increase from the 0.95% a decade earlier, it is still well below the EU15 average of 1.91%, and the figure for Germany, the Czech Republic's biggest neighbor and trading partner, that stands at 2.51%. The comparison with the world's R&D superpowers such as Japan, Switzerland, and the

Table VI.5.1 Size and structure of R&D expenditures

	R&D expenditures as a percentage of GDP			Percentage of expenditures financed by industry			Percentage of expenditures financed by government		
	1995	2000	2005	1995	2000	2005	1995	2000	2005
EU 15	1.85	1.92	1.91	53.1	56.6	54.8	38.8	33.9	34.4
Czech Republic	**0.95**	**1.21**	**1.42**	**63.1**	**51.2**	**54.1**	**32.3**	**44.5**	**40.9**
Germany	2.19	2.45	2.51	60.0	66.0	66.8[a]	37.9	31.4	30.4[a]
Hungary	0.73	0.78	0.94	38.4	37.8	39.4	53.1	49.5	49.4
Poland	0.63	0.64	0.57	36.0	29.5	30.3	60.2	66.5	60.7
Slovakia	0.92	0.65	0.51	60.4	54.4	36.6	37.8	42.6	57.0
Switzerland	2.67[c]	2.57	2.94[a]	67.5[c]	69.1	69.7[a]	26.9[c]	23.2	22.7[a]
United States	2.49	2.73	2.68[a]	60.2	68.6	61.4[b]	35.4	25.8	30.4[b]
Japan	2.92	3.05	3.13[a]	67.1	72.4	74.5[b]	19.4	19.6	17.7[c]

Source: Eurostat and OECD

[a] Data for 2004.   [b] Data for 2003.   [c] Data for 1996.

U.S. displays an even larger gap. On the other hand, the Czech Republic spends significantly more relative to its GDP than Poland, Hungary, and Slovakia, which all spend less than 1% of their GDP on R&D.

Table VI.5.1. also shows that the fraction of this expenditure financed by the industry has decreased from almost two thirds in 1995 to just above one half in 2000, where it stabilized ever since. The figure of 54.1% in 2005, the latest year with available data, is very close to the figure of 54.8% for EU15. Generally, countries with higher R&D expenditures as a share of GDP also report a larger share of this expenditure being financed by the industry. The portion of publicly funded research in the Czech Republic has increased from about a third in 1995 to around 40% in 2005. The rest of the expenditure comes from foreign and non-profit sources.

The most important input into the production of R&D is human capital. Table VI.5.2 shows that the number of tertiary graduates in science and technology per 1,000 of the population aged 20–29 years has grown from 5.5 in 2000 to 8.2 in 2005, but it tends to lag

behind not only the EU and other R&D superpowers, but also behind Poland and Slovakia. It is necessary to mention, though, that this table adjusts neither for quality differences in education, nor for net migration flows of educated workforce out of the region. A casual observation of the likes of Microsoft and SAP setting up their regional technological centers in Prague suggests though that large multinationals perceive the local labor market to be at least partially capable of providing workers with the right skills for the job.

When it comes to counting people whose primary job is to do research per 1,000 employed workers in full-time equivalent units, Table VI.5.3 shows that the Czech Republic has seen a growth from 2.3 in 1995 to 3.3 in 2003, the latest year with available data. However, even at this level, it significantly lags behind both the EU15 (6.1) and other countries in the region. This reflects the low R&D intensity of the old traditional industries as well as the manufacturing-only character of many new greenfield foreign investment projects.

Table VI.5.2 Tertiary graduates in science and technology per 1.000 of population aged 20–29 years

	2000	2005
EU 25	10.6	13.2
Czech Republic	**5.5**	**8.2**
Germany	8.2	9.7
Hungary	4.5	5.1
Poland	6.6	11.1
Slovakia	5.3	10.2
Switzerland	–	14.6[a]
United States	9.7	10.6
Japan	12.6	13.7

Source: Eurostat
[a] Data for 2004.

Table VI.5.3 Number of researchers per 1,000 employed, full-time equivalent

	1995	2003
EU 15	5.2	6.1
Czech Republic	**2.3**	**3.3**
Germany	6.2	7.0
Hungary	2.9	3.9
Poland	3.2	4.5
Slovakia	4.6	4.7
Switzerland	–	6.1[a]
United States	8.1	–
Japan	8.3	10.4

Source: OECD
[a] Data for 2004.

Table VI.5.4 Number of patent applications to the European Patent Office (EPO) per million inhabitants

	1995	**2003**
EU 15	94.603	160.65
Czech Republic	**3.13**	**15.947**
Germany	175.458	311.714
Hungary	9.376	18.892
Poland	0.706	4.193
Slovakia	4.042	8.137
Switzerland	266.767	425.639
United States	108.117	167.584
Japan	105.925	219.141

Source: Eurostat

As a final means of comparison, Table VI.5.4 lists the number of patent applications to the European Patent Office per million inhabitants. A similar pattern applies again. Although the number for the Czech Republic has increased five-fold from 3.13 in 1995 to almost 16 in 2003, it is a tiny fraction of the analogous figures for the EU15 (160.65), Germany (311.71), and Switzerland (425.64). Although these figures do not reflect the quality of the applications, their success rate, or whether they are triadic (i.e. applying to the European Patent Office, the U.S. Patent and Trademark Office, and Japan Patent Office at the same time), it is very suggestive of the comparative state of research in the Czech Republic.

A major institutional change in 2007 affecting research institutions was the transformation of the institutes of the Academy of Sciences into "public research institutes". Effectively, this is supposed to give the individual institutes more autonomy in manipulating their assets and engaging in for-profit activities. This change is similar in nature to the one that has already been implemented in universities. It aims to provide better incentives for institutes to engage in applied research and other cash-generating activities with the objective to provide more financial independence.

Another institutional change that has been taking shape over the past several years is the way research output is evaluated for the purpose of allocating public funding. The new evaluation system for 2007 approved by the Council for Research and Development rewards publications depending on the impact factor of the scientific journal they appear in, and gives significant premiums to patents, especially if granted by the European Patent Office, U.S. Patent and Trademark Office, or the Japan Patent Office. This methodology aims to encourage quality alongside quantity of research output, which is in contrast to the past system that put more stress on quantity.

All these institutional changes should provide for a more stimulating, quality-oriented, and better-funded research environment in the future. However, they only deal with publicly funded research. A major challenge for the upcoming years is to stimulate the industrial R&D of existing firms and attracting more R&D-intensive foreign investment projects. Such projects would undoubtedly provide research jobs, stimulate activities within the public research domain, and stimulate universities to increase the quality of their curricula and the quantity of their graduates.

VII. COMPARATIVE STATISTICS

Comparison of Selected Economic Indicators for CEFTA Countries

General Characteristics

	CZ	HU	PL	RO	SK	SL
Surface	78,886	93,030	312,685	238,391	49,034	20,273
Population (in thousands)	10,251.1	10,076.6	38,157.1	21,610.2	5,389.2	2,003.4
Urban share (%, 2004)	75	65	63	55	58	49
Economically active (%)	50.7	42.8	45.2	46.4	49.3	50.9

Level of Development in 2006

	CZ	HU	PL	RO	SK	SL (SI)
GDP total (current prices, mln of EUR)	114,0201	89,901	271,530	97,118	30,454	43,945
GDP per capita (EUR)	11,100	8,900	7,100	4,500[f]	8,200	15,200
GDP per capita (EU25=100)	45	36	29	18[f]	33	61
GDP per capita in PPS (EU25=100)	76	63	51	36[f]	60	85

Real Growth Rates in 2006

	CZ	HU	PL	RO	SK	SL
GDP	6.4	3.9	6.1	7.7	8.3	5.7
Gross fixed capital formation	5.5	-2.1	16.5	16.1	7.3	8.4
Industrial production (NACE classification)	7.9	6.2	7.6	12.3	5.5	5.5
Construction	5.6	0.0	12.6	19.2	15.9	13.6

Unemployment, Wages and Prices in 2006

	CZ	HU	PL	RO	SK	SL
Unemployment rate	7.1	7.5	13.8	7.3	13.4	6.0
Average gross monthly minimum wage (EUR)	271	238	228	92	182	512
Real growth rate of wages	14.2	3.4	10.9	15.9	8.5	4.3
Consumer Price Index	102.1	104.0	101.3	106.6	104.3	102.5
Producer Price Index	112.7	148.2	118.7	311.9	138.7	128.9

Government Deficit, Current Account and Debt in 2006

	CZ	HU	PL	RO	SK	SL
Deficit as % of GDP	-2.9	-9.2	-3.8	-1.9	-3.7	-1.2
Gross government debt as% of GDP	30.1	65.6	47.6	12.4	30.4	27.1
Current account (2003) as % of GDP	-4.2	-5.5	-2.9	-10.4	-11.2	-1.7

Exports and Imports in 2006

	CZ	HU	PL	RO	SK	SL
Imports (mln of EUR)	82,880	69,452	111,742	43,221	20,820	39,700
Growth rate of imports	19.8	16.0	22.2	25.5	26.5	15.8
Exports (mln of EUR)	86,394	69,984	109,640	31,455	20,518	37,659
Growth rate of exports	19.3	18.9	21.0	20.1	27.9	15.3
Trade balance (mln of EUR)	3,514	532	-2,103	-11,766	-2,041	-301

Source: Eurostat

Note: f Forecast.

VIII. LIST OF CERGE-EI WORKING PAPERS

All working papers are available at http://www.cerge-ei.cz/publications/

311. Jan Boone, Delia Ionascu, Kresimir Zigic
Trade Policy, Market Leaders and Endogenous Competition Intensity
OCTOBER 2006

312. Katarina Svitkova
Corporate Philanthropy in the Czech and Slovak Republics
NOVEMBER 2006

313. Silvester van Koten
Bidding Behavior when One Bidder and the Auctioneer Are Vertically Integrated Implications for the Partial Deregulation of EU Electricity Markets
DECEMBER 2006

314. Junghun Cho
Multiple Advisors with Reputation
DECEMBER 2006

315. Jiri Podpiera
The Role of Policy Rule Misspecification in Monetary Policy Inertia Debate
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316. Eugen Kovac, Viatcheslav Vinogradov, Kresimir Zigic
Persistence of Monopoly, Innovation, and R&D Spillovers: Static versus Dynamic Analysis
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317. Jan Bena, Stepan Jurajda
Financial Development and Growth in Direct Firm-Level Comparisons
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319. Kresimir Zigic
Government's (In)ability to Precommit, and Strategic Trade Policy: The "Third Market" versus the "Home Market" Setup
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320. Katarina Svitkova
Prompted to Be Good: The Impact of Certification on the Quality of Charities
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321. Alexandr Cerny, Randall K. Filer
Natural Resources: Are They Really a Curse?
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Does Reform Work? An Econometric Examination of the Reform-Growth Puzzle
MARCH 2007

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Testing Multi-Factor Asset Pricing Models in the Visegrad Countries
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324. Jakub Steiner, Colin Stewart
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APRIL 2007

325. Marian Krajc, Andreas Ortmann
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Unaware? An alternative explanation*
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Interconnected Education and
Pension System in the Czech Republic*
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327. Giovanna Devetag, Andreas Ortmann
*Classic Coordination Failures
Revisited: The Effects of Deviation
Costs and Loss Avoidance*
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328. Silvester van Koten, Andreas Ortmann
*The Unbundling Regime for Electricity
Utilities in the EU: A Case of
Legislative and Regulatory Capture?*
M A Y   2 0 0 7

329. Tomas Konecny
Can Immigrants Hurt Trade?
M A Y   2 0 0 7

330. Jan Bena, Stepan Jurajda
*Which Firms Benefit More from
Financial Development?*
J U N E   2 0 0 7

331. Teodora Paligorova
*Corporate Governance and Executive
Pay: Evidence from a Recent Reform*
J U L Y   2 0 0 7

332. Levent Celik
*Informative Advertising
and Consumer Search in a
Differentiated-Products Duopoly*
J U L Y   2 0 0 7

333. Ashot Tsharakyan
*Welfare Effects of Housing Price
Appreciation in an Economy With
Binding Credit Constraints*
J U L Y   2 0 0 7

334. Andreas Ortmann, Sasha Prokosheva,
Ondrej Rydval, Ralph Hertwig
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CERGE-EI
NADACE

The Foundation's Mission is to provide support and encourage the further development of economic education and research.

History and Current Activities of Nadace CERGE-EI

Nadace CERGE-EI was founded in 1991 to support CERGE-EI – a joint workplace of Charles University in Prague and the Academy of Sciences of the Czech Republic – though its activities have expanded beyond the original goal of the founders. Nadace CERGE-EI offers support of economic education and research, cooperating with a number of institutions both in the Czech Republic and abroad which support the same goals.

Types of Projects

Support of economic education at CERGE-EI

Student Stipends

Student study visits abroad

Support for Professors
(Chaired Professorships)
- Visiting Faculty
- Local Faculty

CERGE-EI Library

Publications

Projects supported from the interest yields of the Czech government's Foundation Investment Fund

For institutions located in the Czech Republic

Topics of recent public calls for projects / proposals:
- Czech Republic and the European Union
- Macroeconomics / Monetary and Fiscal Policy
- Microeconomics / Transition Economics / Privatization and Enterprise Restructuring
- Financial and Capital Markets
- Labor Economics / Social Policy

Projects intended for the whole CEE region

Key goal is to assist in the dissemination of economic education and research.

Projects:
1) Support of international conferences and seminars
2) Travel Fund for young students and researchers

Foundation's Independent Projects

Organizing roundtable / panel discussions and seminars

Publications

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Fax:	+420 224 005 185
E-mail:	nadace@cerge-ei.cz
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CERGE-EI Library

The CERGE-EI Library, established in 1992, has grown into a rich resource of economic literature and electronic information services. Since November 1994 it has also offered its services to the public. Today it is considered as one of the best libraries of its kind in Central and Eastern Europe.

Library Collections

The Library offers over 90,000 volumes: monographs, journals, statistics, reference materials, doctoral theses, and grey literature (working and discussion papers of leading world academic and scientific institutions of economics) arranged in open stacks and in stockrooms, and searchable through an electronic catalogue.

The main part of the collection is in the English language and reflects the teaching schedule, the research fields and programes of CERGE-EI.

Since 1994 the Library has been designated by the World Bank as an official depository library for World Bank publications and since 2002 the Library has served as the depository Library of the United Nations Conference on Trade and Development (UNCTAD).
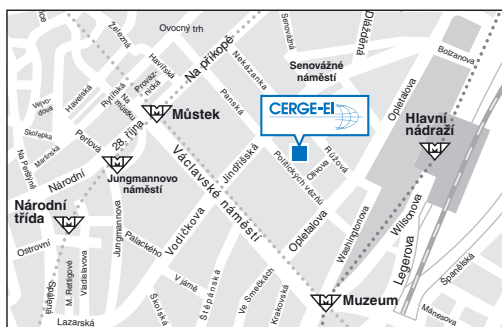
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Opening hours for public:
Mon – Fri: 10 a.m. – 7 p.m.
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CZECH REPUBLIC 2007
The Beginning of Fiscal Reform

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UPCES

Undergraduate Program in Central European Studies

CHARLES UNIVERSITY, PRAGUE, CZECH REPUBLIC

Academic Excellence

UPCES was launched in 2001 with the intention of being the most distinguished undergraduate academic program of its kind in Central Europe. It is located at CERGE-EI in Prague, a renowned center for economic graduate education with an academic reputation unparalleled in Central and Eastern Europe.

CERGE-EI offers fully accredited degrees under the authority of the New York State Board of Regents and the Ministry of Education of the Czech Republic. In addition, the Faculty of Humanities of Charles University, a partner with the UPCES program, is accredited by the Ministry of Education of the Czech Republic.

UPCES students have a unique opportunity to interact with other students since UPCES courses are cross-listed through the School of Humanities. This creates classes that are a mix of European and North American students.

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Eligible students must have proven academic abilities and a demonstrated interest in the social sciences. Generally, the admissions committee expects a GPA level of 3.0. Students must have completed at least four semesters of university-level work. Students who apply before their junior year should provide clear and compelling reasons for early application. Students from Central and Eastern European countries are potentially eligible for tuition waivers and financial support that cover both tuition and living expenses. It is mandatory that all CEE students have excellent proficiency of the English language, both written and verbal.

UPCES Contact information:

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- A world-class education in Economics fully accredited in the Czech Republic and the U.S.A.,
- A multinational community – faculty and students from about 30 countries,
- All instruction is in English,
- The program is open to students from any field, although previous experience in Economics and Mathematics or related field is beneficial,
- Most students are granted tuition waivers and stipends,
- Most CERGE-EI students spend part of their studies at universities abroad,
- Our graduates are regularly offered positions of importance at western universities, international organizations, central banks, regional think tanks and multi-national consulting firms.

Further information and application forms can be found at **www.cerge-ei.cz**.