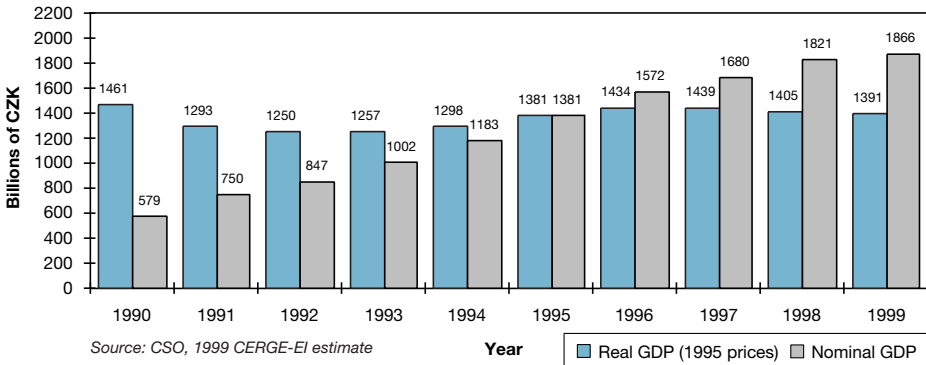


III. MACROECONOMY

III.1 Gross Domestic Product

Nominal and Real GDP in CZK



At the outset of transition in 1991, the economy experienced an unparalleled, though expected, decrease in aggregate output lasting for two more years. A moderate revitalization started in 1994. In real terms (measured with the help of the official inflation rate) the GDP declined by more than 21 per cent in comparison with 1989. We suspect that such a decline was not that dramatic due to possible inflation measurement biases (see the feature article). In 1997 several dramatic events took place: the exchange rate and financial market crisis, and summer flooding that prompted the government to issue special flood bonds to raise money to help the stricken regions.

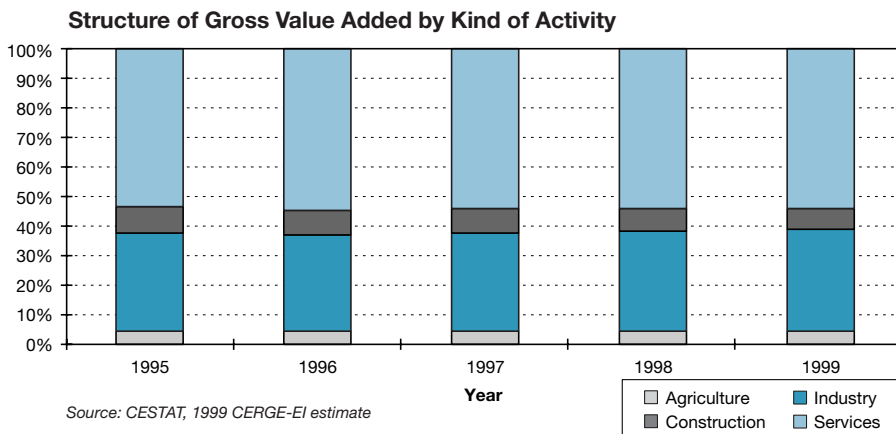
Economic development in 1998 was marked by the continuing influence of the previous year's troubles, but it managed to avoid the worst impact of the Asian financial crisis spillovers. By the end of 1998, the country found itself in a state of recession as defined from a macroeconomic perspective. The decline of aggregate output continued throughout the first half of 1999. Only by the end of the year could we observe certain signs of very modest growth. Vast shortcomings in the voucher privatization (see the feature article) and flaws in the enforcement of the country's legal system seem to be the prime suspected causes of poor economic development.

Real GDP Growth Rate (in %)

| 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|------|-------|------|------|------|------|------|------|------|------|
| -1.2 | -11.5 | -3.3 | 0.6 | 2.7 | 5.9 | 3.9 | 0.3 | -2.3 | -0.4 |

Source: CNB, CESTAT, 1999 CERGE-EI estimate

Structure of Gross Value Added



After the unparalleled boom which the service sector experienced at the beginning of transformation, its share in gross value added (GVA) leveled off. By now services account for slightly more than 50 per cent of GVA. Among services, real estate and business activities are gradually gaining significance, as have financial intermediation, transportation, and telecommunication activities. No doubt these sectors have benefited from the increased use of mobile phones and the Internet. Industry accounts for about 34 per cent. The persistently low share of hotel and restaurant activities, on the other hand, reveals that catering and

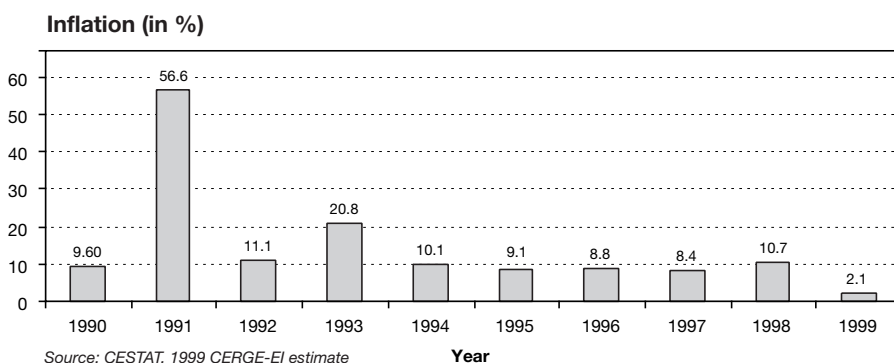
accommodation services have yet to match the standards common in developed economies. Agriculture exhibits a continuously declining share in GVA. Stagnation in the construction industry may be largely ascribed to the overall fall in demand. However, what also plays an important role is the still-regulated housing market that does not guarantee returns on investment in building repairs and maintenance. Although industry appears to be catching its breath anew, we think its increased relative share merely signals that the decline in this sector was not as fatal as in other sectors.

Detailed Breakdown of Services (% of Total Gross Value Added)

| | Trade and repair | Hotels and restaurants | Transport, storage and communication | Financial intermediation | Real estate and business activities | Other |
|------|------------------|------------------------|--------------------------------------|--------------------------|-------------------------------------|-------|
| 1995 | 11.4 | 3.6 | 8.1 | 4.7 | 11.6 | 13.9 |
| 1996 | 13.2 | 3.1 | 8.0 | 4.1 | 11.6 | 14.5 |
| 1997 | 13.0 | 1.8 | 7.7 | 4.8 | 12.7 | 13.7 |
| 1998 | 11.1 | 2.0 | 9.4 | 5.0 | 12.9 | 13.4 |
| 1999 | 11.0 | 2.1 | 10.1 | 5.2 | 13.0 | 12.7 |

Source: CESTAT, 1999 CERGE-EI estimate

III.2 Inflation



Before 1989 the dragon of inflation was safely hidden in its cave, however inflation was still present in the economy; it was only covered by state accounting practices. During 1990 prices were still more or less under state control, but in 1991 they took a deep dive which came as no surprise. Freeing prices in February 1991 accounted for almost the entire increase in inflation for that year. The introduction of the Value Added Tax caused not so profound increases in 1993. Further on, the Central

Bank executed generally tight monetary policy resulting in relatively low inflation and aimed to push it further down. In 1998 the Central Bank adopted the policy of “net inflation targeting.” Net inflation is the part of inflation that accounts for the prices that are not regulated by the state. For 1998 the target of 4.5-5.5 per cent was easily achieved. During 1999 the country recorded the lowest inflation in the 1990s, and the bank undershot its target level: 4-5 per cent for net inflation and 6-7 per cent for gross inflation.

Inflation (in %)

| | Czech Republic | | Slovakia | | Hungary | | Poland | | Slovenia | |
|------|----------------|------|----------|------|---------|------|--------|-------|----------|-------|
| | a | b | a | b | a | b | a | b | a | b |
| 1990 | 9.6 | 18.4 | 10.4 | 18.4 | 29.0 | 34.6 | 555.4 | 225.9 | 551.6 | 105.0 |
| 1991 | 56.6 | 52.0 | 61.2 | 61.2 | 34.2 | 31.0 | 76.7 | 60.3 | 115.0 | 250.0 |
| 1992 | 11.1 | 12.7 | 9.9 | 9.1 | 22.9 | 24.7 | 45.3 | 44.4 | 156.6 | 88.2 |
| 1993 | 20.8 | 18.2 | 23.2 | 25.1 | 22.5 | 21.1 | 36.9 | 37.7 | 31.9 | 22.9 |
| 1994 | 10.1 | 9.9 | 13.4 | 11.7 | 18.9 | 21.2 | 33.3 | 29.4 | 19.8 | 18.3 |
| 1995 | 9.1 | 7.9 | 9.9 | 7.2 | 28.3 | 28.3 | 26.8 | 21.9 | 12.6 | 8.6 |
| 1996 | 8.8 | 8.6 | 5.8 | 5.4 | 23.5 | 19.8 | 20.2 | 18.7 | 9.7 | 8.8 |
| 1997 | 8.4 | 10.0 | 6.1 | 6.5 | 18.3 | 18.5 | 15.9 | 13.2 | 9.1 | 9.4 |
| 1998 | 10.7 | 7.5 | 6.7 | 5.6 | 14.4 | 10.6 | 11.7 | 8.5 | 8.6 | 7.5 |
| 1999 | 2.1 | 2.3 | 10.1 | 13.1 | 10.5 | 10.2 | 10.1 | 9.2 | 7.8 | 7.1 |

a) Moving average change in CPI b) End-of-year change in CPI

Source: CESTAT, IMF, 1999 CERGE-EI estimate

Inflation targeting

*During the past year we have witnessed a shift in the CNB's primary policy. Right now, the CNB has declared its main numerical target – inflation. However, the use of inflation as a measure has been replaced with net inflation (i.e., inflation adjusted for the relaxation of price controls, sometimes referred to as core inflation) as a response to critiques of inadequate gross inflation targeting in a transition economy with controlled price liberalization. In 1999 the actual inflation outcome had been **again** lower than the target announced by the CNB. The credibility of the CNB's inflation targets and of the bank itself is diminishing.*

The CNB's secondary target, which has no exact numerical definition, is exchange rate stability. However, the selection of this "mix" is highly questioned, mainly in view of the EU accession process. If the CEE economies plan to join the European Union in the near future, they are required to adjust their price levels quite quickly, which could be done either by leaving the exchange rate to appreciate or by allowing inflation to increase.

CNB interest rates since its establishment in 1993

| Date | Discount (in %) | Lombard (in %) |
|--------------------|-----------------|----------------|
| Since Jan 1st 1993 | 9.5 | 14.0 |
| Jun 10th 1993 | 8.0 | |
| Aug 9th 1993 | | 12.5 |
| Dec 17th 1993 | | 11.5 |
| Apr 8th 1994 | | 10.5 |
| Oct 24th 1994 | 8.5 | 11.0 |
| Dec 2nd 1994 | | 11.5 |
| Jun 26th 1995 | 9.5 | 12.5 |
| Jun 21st 1996 | 10.5 | 14.0 |
| May 16th 1997 | | 50.0 |
| May 27th 1997 | 13.0 | |
| Jun 27th 1997 | | 23.0 |
| Jan 23rd 1998 | | 19.0 |
| Aug 14th 1998 | 11.5 | 16.0 |
| Oct 27th 1998 | 10.0 | 15.0 |
| Dec 22nd 1998 | 7.5 | 12.5 |
| Mar 12th 1999 | 6.0 | 10.0 |
| Sep 3rd 1999 | 5.5 | 8.0 |
| Oct 27th 1999 | 5.0 | 7.5 |

Source: CNB

A major problem is hidden in the notion to which extent tradable and non-tradable goods affect the price levels and what should be the “accession” price levels. Tradable goods are approximately at the world level using the current exchange rate, while non-tradable goods do not play a role. There is a certain fear that after full membership, without the adjustment of non-tradable good prices, we would observe an enormous labor flow into the old EU member countries. However, the mobility of Czech labor market within the country is quite rigid compared to mobility within Europe. Moreover, when the EU was enlarged for Spain and Portugal, no enormous labor flows were observed.

For several years Minimal Reserve Requirements (MRR) were used as a monetary instrument until late 1998; after that we can see a sharp decline in the MRR rate, documenting the practical abandonment of this instrument. MRR accounts do not bear interest and their volumes were set unreasonably high; the common MRR volumes are about 2 per cent and are usually interest bearing. Since banks needed to have such a huge portion of their primary sources frozen in non-interest bearing accounts, they had to keep high margins on interest rates and hence attracted riskier projects. We could see that when the MRR were used as a monetary instrument, small banks have not been able to immediately cope with the “regulatory” target.

The last issue connected with inflation targeting is the setting of interest rates. No matter what targets and instruments are used, commercial banks prefer to deposit almost all their resources in the central bank prior to any lending; thus, the depository rates are too high causing an uncommon case of credit crunch.

Minimum Reserve Requirement Rates since 1992

| Rates effective by: | Nov. 1992 | Feb. 1993* | Jul. 1993 | Aug. 1994 | Aug. 1995 | Aug. 1996 | May. 1997 | Aug. 1998 | Jan. 1999 | Oct. 1999 |
|---------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Demand deposits | 9% | 9-12% | 9% | 12% | 8.5% | 11.5% | 9.5% | 7.5% | 5% | 2% |
| Time deposits | 3% | 3-4% | 3% | 12% | 8.5% | 11.5% | 9.5% | 7.5% | 5% | 2% |

* Lower rate was used for banks with deposits up to 25 billion CZK, otherwise the higher rate was applied.

Source: CNB

Was there a steep decline in output?

(Based on Hanousek, H.: Was the Transition Recession an Illusion? CERGE-EI Round Table Discussion Series, September 22, 1999)

Mismeasurement of inflation is likely to be more severe in a transition economy than in a more stable environment. Reasonable estimates of the size of the inflationary bias in the Czech Republic suggest that conventionally reported declines in real output and living standards during the transition may be a statistical artifact rather than a real phenomenon. A decline in real output is a widely assumed outcome of the transition from communism. Almost every textbook claims that one of the most visible changes in the first years of transition was a steep decline in output.

There are many reasons for questioning the reported decline. Planned economies had incentives to overstate production to meet the plan, while market economies induce under reporting of output to reduce taxes. Statistical organizations were not able to identify newly established private firms that often operated in the gray market. Finally, reported inflation may overstate actual inflation, thereby causing real output to be underreported.

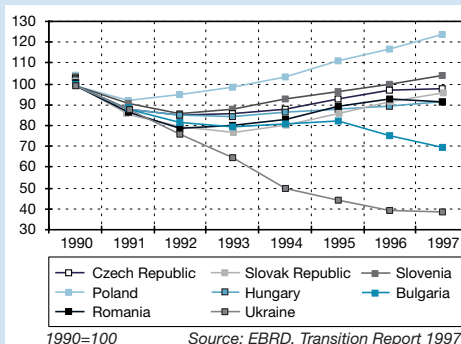
Figures show the relationship between inflation and real output growth for several transition countries between 1991 and 1997. Higher inflation is clearly associated with lower growth. While economies might do badly in several areas simultaneously, given that inflation theoretically stimulates an economy, the pattern suggests that upward biases in inflation create downward biases in GDP.

Even in stable market economies, Consumer Price Indices are biased upward. A recent commission concluded that the US CPI overstated the rate of inflation during the 1990s by about 1.1 percentage points out of 3. Similar results exist for the UK and other countries.

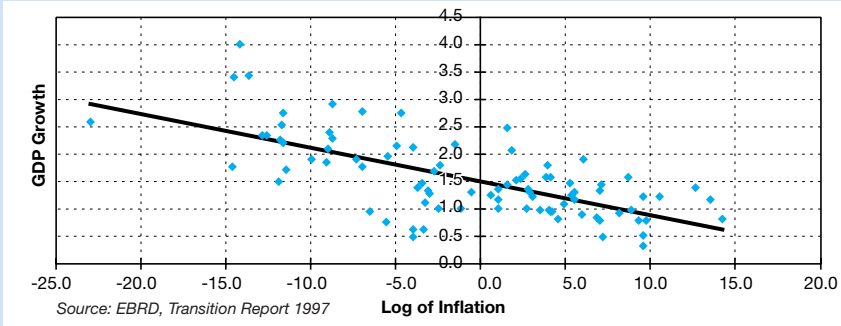
A greater bias should exist in transition economies, with significant policy implications. Many years of a decline in real GDP were probably growth years. In addition, real wages are higher than believed, with correspondingly lower poverty rates. Thus, governments have more latitude to lower social spending, thereby reducing tax burdens and increasing growth. Implications for integration with the EU are similarly profound. Less structural assistance will be needed, enabling more rapid expansion and free labor mobility.

The main sources of bias in measures of inflation are (1) con-

Measured Real GDP in Selected Countries



Relationship between Inflation and Real GDP Growth for Several Transition Countries between 1991 and 1997



sumer substitution, (2) outlet substitution, (3) quality improvement, and (4) new goods. Filer and Hanousek (1998) present approximations of these biases for the Czech Republic, the transition country with the lowest inflation, and they conclude that possible biases in Czech inflation are well over 30 per cent (perhaps as much as 50 per cent). In other words instead of 9.3 per cent for 1996 and 10.6 per cent for 1997, true inflation measures for the Czech Republic were closer to 5.8 per cent and 7.6 per cent. Thus, reported growth rates of 4.2 per cent for 1996 and 1.0 per cent for 1997 may have been closer to 7.6 per cent and 3.8 per cent.

These figures are only suggestive. This has profound implications for understanding the success of the transition. The table shows reported growth rates for five transition economies as well as growth rates recalculated under the assumption that reported inflation rates were only 20 per cent greater than actual inflation rates. Eliminating even this low bias would eliminate almost all reported output declines, turning a story of decline and disruption into one of growth and hope.

Impact of 20% Bias in Inflation Measure on Real Growth Rate (in %)

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | Cumul. Annual |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|------|---------------|
| Czech Republic as rep. | -1.2 | -11.5 | -3.3 | 0.6 | 2.7 | 5.9 | 4.2 | 1.0 | 0.3 |
| <i>if inflation biased by 20%</i> | 0.6 | -5.0 | -1.0 | 3.8 | 4.6 | 7.5 | 5.9 | 2.9 | 2.3 |
| Hungary as reported | -3.5 | -11.9 | -3.1 | -0.6 | 2.9 | 1.5 | 1.0 | 3.0 | -1.4 |
| <i>if inflation biased by 20%</i> | 1.0 | -7.4 | 0.5 | 3.0 | 6.6 | 6.1 | 5.0 | 6.1 | 2.5 |
| Bulgaria as reported | -9.1 | -11.7 | -7.3 | -2.4 | 1.8 | 2.1 | -9.0 | -7.0 | -5.4 |
| <i>if inflation biased by 20%</i> | -0.9 | 4.4 | 1.7 | 5.9 | 14.4 | 7.4 | 2.3 | 12.2 | 5.8 |
| Poland as reported | -11.6 | -7.0 | 2.6 | 3.8 | 5.2 | 7.0 | 5.5 | 5.5 | 1.2 |
| <i>if inflation biased by 20%</i> | 6.6 | 0.5 | 9.3 | 9.8 | 10.2 | 11.0 | 9.1 | 8.3 | 8.1 |
| Ukraine as reported | -3.4 | -11.6 | -13.7 | -14.2 | -23.0 | -11.8 | -10.0 | -3.0 | -11.6 |
| <i>if inflation biased by 20%</i> | -2.6 | 0.8 | 6.9 | 7.0 | -8.3 | 1.3 | -1.2 | 0.3 | 0.4 |

III.3 Investments

Investment fuels economic growth. The steady rise in investment which followed the division of Czechoslovakia in 1993 reached its summit in 1996. Following the crisis in 1997, the rate of investment started to decline.

The next year, 1998, was marked by a continuing decrease in investment in those fields which boomed early on in the transformation process, namely the infrastructure and the financial sector. Among manufacturing branches, only engineering and electrical engineering registered a notable increase in investment demand. As far as the non-financial sector is concerned,

investment in firms under foreign control rose.

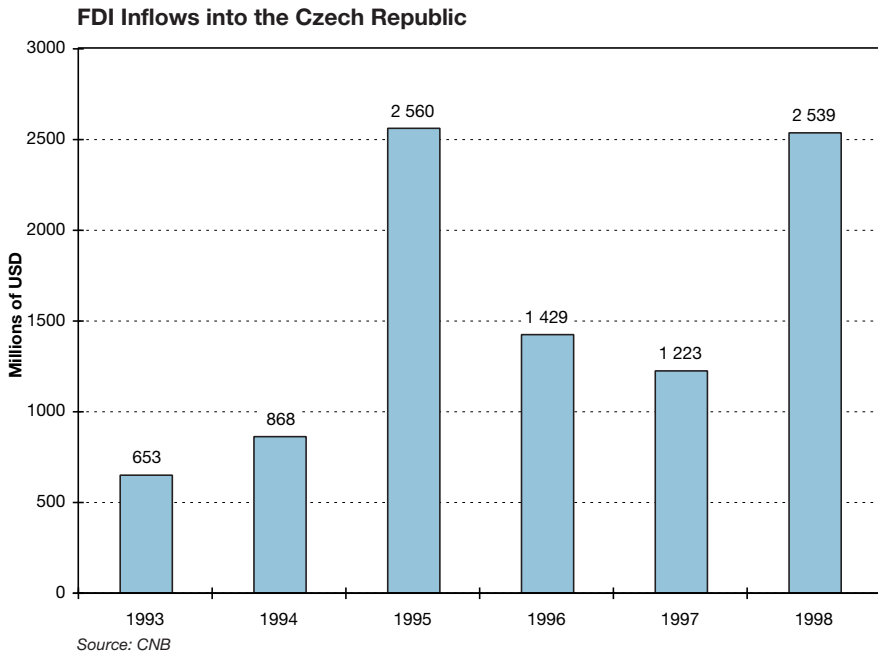
Investment in public and domestic private firms, on the other hand, went down, reflecting the increased prudence of commercial banks in providing credit. After the slowdown in Foreign Direct Investment (FDI) inflow in 1997, the country recorded an impressive revival in 1998 when the gains due to the measures adopted by the interim government in the first half of 1998 started to materialize. However, this FDI was directed mainly into the trade, banking, and communication sectors (also see section on FDI).

Gross Fixed Capital Formation

| | Gross fixed capital formation in 1994 prices (billions of CZK) | Share of Gross fixed capital formation in GDP (%) |
|------|--|---|
| 1994 | 339.9 | 29.6 |
| 1995 | 411.2 | 33.7 |
| 1996 | 446.8 | 35.2 |
| 1997 | 425.1 | 33.2 |
| 1998 | 409.2 | 32.8 |
| 1999 | 394.8 | 32.0 |

Source: CNB, 1999 CERGE-EI estimate

III.4 Foreign Direct Investment



The amount of foreign direct investment in the Czech economy has risen steadily since the early part of the decade. The total inflow of FDI has surged from 653 million USD in 1993 to 2.560 billion USD in 1995 when inflows culminated, coinciding with the peak of the privatization program. In 1995, the national telecommunications company was privatized along with other public utilities and a large oil refinery. In the following two years, the Czech economy has experienced a sharp decline in FDI inflows. In 1997, the country attracted only 1.223 billion USD of inward investment, less than

half of the total inflow in 1995. However, in 1998, the negative trend has been broken and FDI has more than doubled in comparison with 1997, as foreign companies invested 2.539 billion USD.

In total, the Czech Republic has attracted 11.773 billion USD of FDI in the period 1989-1998. A large proportion of the world's best-known multinationals have already set up operations in the Czech Republic. In total, there were over 2,200 foreign-owned or partly foreign-owned companies with more than 25 employees registered in mid-1999.

The Largest Foreign Investments in the Czech Republic

| Total investment (mil. of USD) | Foreign partner, Country | Type of business, Investment time span | Name of the Czech partner or subsidiary |
|--------------------------------|---|--|--|
| 1,460 | TelSource Netherlands, Switzerland | Telecommunications 1995 | SPT Telecom a.s. |
| 900 | Volkswagen Germany | Automobiles 1991-1998 | Škoda automobilová a.s. |
| 629 | IOC Netherlands, USA, Italy | Petroleum refining 1995-2000 | Česká rafinérská a.s. |
| 450 | Asea Brown Boveri (ABB) Sweden, Switzerland | Electronics, engineering 1991-1998 | 11 companies in total |
| 420 | Phillip Morris USA | Tobacco 1992 | Tabák a.s. |
| 400 | National Energy Corp., El Paso Energy, NRG Energy USA | Energy 1997-1999 | Energetické centrum Kladno, ECK Generating s.r.o. |
| 357 | Daewoo-Steyr South Korea, Austria | Vehicles 1995 | Daewoo Avia a.s., Prague |
| 232 | Glaverbel Group (subsidiary of Asahi Glass) Belgium, Japan | Auto glass 1991-1998 | Glaverbel Czech |
| 200 | Pepsi-Cola International USA | Soft Drinks 1994-2000 | |
| 200 | Coca Cola Amatil Australia | Soft Drinks 1991-1998 | Coca Cola Beverages CR a.s. |
| 200 | National Power United Kingdom | Energy 1997-1998 | Elektrárny Opatovice |
| 183 | T Mobil Germany, Italy | Telecoms-GSM 1996 | RadioMobil a.s. |

Source: CzechInvest

Foreign Direct Investment and Investment Climate in 1999

The preliminary estimate of the total FDI in 1999 is 4 billion USD, by far the greatest amount for the entire period of transformation. The very promising results of the last two years are to a large extent related to a change in the investment climate in the Czech Republic. In April 1998, the Czech government approved the national investment incentive package and set a minimum investment level of 25 million USD. Later on it was reduced to 10 million USD. Incentives are offered to manufacturing investors only, although it is planned that investment projects in selected services such as telecommunications will also be eligible. In addition, the following eligibility criteria have to be met:

- Investment into machinery has to account for at least 40 per cent of the total investment and at least 50 per cent of the production line (in terms of costs) must consist of machinery listed under the Czech-

government approved list of high-tech machinery.

- The investment must be made into the construction of a new production plant (greenfield investment) or into the purchase or lease of existing production facilities to launch a new production activity (brownfield investment). Acquisitions are not eligible.

- The proposed production must meet all Czech environmental standards.

Manufacturing investors meeting the criteria may currently apply for all or any of the following incentives: corporate tax relief for up to 10 years, location in a customs-free zone, duty-free imports of machinery and equipment, job-creation grants, training grants, and provision of low-cost building land and/or infrastructure. Twenty companies have been granted investment incentives so far investing 1.183 billion USD in the Czech manufacturing industry and creating almost 6,000 jobs.

Major Projects Which Have Received Investment Incentives

| Investor | Total investment (millions of USD) | Type of business |
|-------------------------------|------------------------------------|------------------|
| Škoda AUTO | 562 | Auto engines |
| AVX Limited | 54 | Electronics |
| Toray Textiles Central Europe | 51 | Textiles |
| Hella Autotechnik | 36 | Automotive |
| Showa Aluminium | 28 | Automotive |
| Hayes Lemmerz | 26 | Automotive |
| Pegas | 25 | Textiles |
| AEG Kondensatoren und Wandler | 25 | Electronics |

Source: CzechInvest

Did We Achieve Achievable?

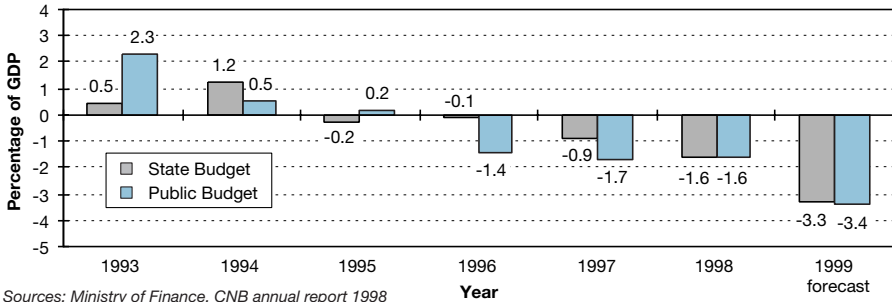
A major problem faced by the Czech economy in early 1990s was the level of knowledge of new technology, given strict limitations imposed on access to foreign technology prior to the transition process. Attracting foreign direct investment (FDI), which is a major channel through which technology and innovation can be disseminated among domestic firms, was of particular importance. FDI establishes permanent commercial relations and incentives for investors to take an active part in the decision making process. Moreover, FDI has been a vital source of necessary investment for modernizing the obsolete industrial structure, bringing advanced management skills, and facilitating access to the world market.

The above arguments suggest that lifting barriers to foreign capital would create the potential for rapid increases in productivity and efficiency and, consequently, for the growth of the Czech economy. Establishing a good investment climate and supporting foreign investors to take an active role in the privatization process have been the key tasks of the reforms, significantly influencing the success of the transition process. Have we achieved these tasks during the decade? Only Hungary and Poland among transition countries were more successful in attracting foreign direct investment. However, the inflow of FDI into the Czech economy has not been sufficient to guarantee lasting economic growth. The role of FDI in the privatization process has been underestimated. A method of direct sales to strategic foreign investors has not been fully exploited and rather the "Czech way" of privatization has been pursued. The voucher method led to a very dispersed ownership structure without establishing a long-term commitment between owners and privatized companies. It did not become a source of necessary capital investments, which was also the case of direct sales of state-owned companies to domestic owners. As a result, a great differentiation in the performance of individual companies is observed. While firms with foreign participation are permanently enhancing productivity, approximately 70 per cent of the Czech-owned companies suffer from undercapitalization and are threatened by bankruptcy.

The deficiencies of the "Czech way" of transformation are reflected in the contemporary problems of the economy. For many companies, the entry of foreign investors is the only way to avoid bankruptcy and keep afloat. To address this issue, the government intends to implement a revitalization program for selected large industrial enterprises. In the first phase of the program, the government plans to take over the companies and invest in their restructuring. In the second phase, re-privatization to strategic foreign investors should take place. Furthermore, the government is putting more emphasis on establishing a favorable investment climate (see previous feature article on FDI). The current understanding of the importance of FDI has been forced by the adverse economic situation. In this respect, we did not achieve the achievable, and we should be much further along the way to a prospering market economy.

III.5 State Budget

Ratios of Budget Deficits/Surpluses to GDP



Sources: Ministry of Finance, CNB annual report 1998
 Source of estimate: CERGE-EI estimate

In 1997 the Czech government introduced a “package” of pro-growth measures that were meant to ease the budgetary process in 1998 and to improve upon the efficiency of the legislative framework. The state budget for 1998 was passed as balanced. Increased consumer taxes, highway fees and administrative fees as well as selective non-mandatory expenditure savings were expected to help achieve this goal. Despite these steps, the 1998 state budget turned into a deficit of 29.3 billion CZK (1.6 per cent of GDP). This was mainly due to unexpected expenditures, early elections in the summer as well as financial compensation to poorly managed banks,

which raised government consumption. Transfer payments further added to expenditures. Revenues fulfilled expectations. A continuing economic downturn resulted in lower VAT and consumer tax revenues. This effect was offset by higher revenues from corporate income and withholding taxes. In 1998 public budgets also ended with a bigger deficit than expected (28.7 billion CZK, 1.6 per cent). The state budget of 1999 was planned to record a deficit of 31 billion CZK. However, it is likely that the deficit actually realized would be higher. The budget proposal for 2000 was rejected twice by the parliament and the third reading is scheduled in early 2000.

State Budget (millions of CZK)

| | Revenues | Expenditures | Surplus | Surplus as% of GDP |
|---------------|----------|--------------|---------|--------------------|
| 1993 | 348,919 | 344,189 | 4,730 | 0.5 |
| 1994 | 389,145 | 374,373 | 14,772 | 1.2 |
| 1995 | 428,366 | 431,771 | -3,405 | -0.2 |
| 1996 | 464,240 | 465,802 | -1,562 | -0.1 |
| 1997 | 487,655 | 503,372 | -15,717 | -0.9 |
| 1998 | 518,076 | 547,406 | -29,330 | -1.6 |
| 1999 planned | 574,112 | 605,127 | -31,015 | -1.7 |
| 1999 expected | 567,300 | 596,900 | -29,600 | -1.6 |
| 2000 planned | 588,100 | 630,100 | -42,000 | -2.1 |

Source: Ministry of Finance

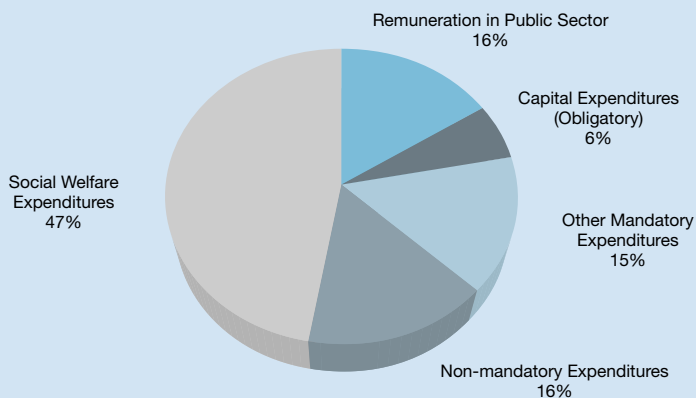
Mandatory Expenditure Squeeze

Perhaps the most important budgetary problem is the overwhelming growth of mandatory expenditures. Mandatory expenditures represent the part of public spending which is not at the direct discretion of the incumbent government, but is mandated by laws or international agreements. This is the case for all social transfers, defense spending required by NATO membership, debt service, and to a great extent remuneration in public administration, etc. However, the largest part of mandatory spending and the primary source of its growth are social transfers, including pensions, social benefits, and unemployment insurance. The share of mandatory expenditures in the central government budget has been growing persistently throughout the transition, reaching almost 84 per cent in 1999.

Mandatory expenditures will likely reach almost 530 billion CZK in the year 2000, while budget revenues are currently estimated to be 594 billion CZK. This severely limits the role of the government and freezes public expenditures on all non-mandatory activities.

Increasing tax rates in response to this problem is hardly a viable solution. The taxation burden is already extremely heavy, especially given the level of economic development. The Czech Republic (as well as in Poland and Hungary) belongs to the "top ten" group in OECD which have the highest payroll taxes. Further, tax evasion is already estimated to be quite high, and higher tax rates might make this problem even worse.

Mandatory Expenditures in the Central Budget (expected 1999)



Source: Ministry of Finance of the CR, report for the Parliament

Growth of Mandatory Expenditures

| Year | 1995 | 1996 | 1997 | 1998 | 1999* | 2000** |
|----------------------------------|-------|-------|-------|-------|-------|--------|
| Billions of CZK | 305.3 | 356.9 | 399.6 | 439.6 | 499.7 | 529.4 |
| % of Central Budget Expenditures | 70.6 | 73.7 | 76.2 | 77.6 | 83.6 | 83.5 |

*Preliminary estimate

**First proposal of the government

Source: Ministry of Finance of the CR, Report for the Parliament

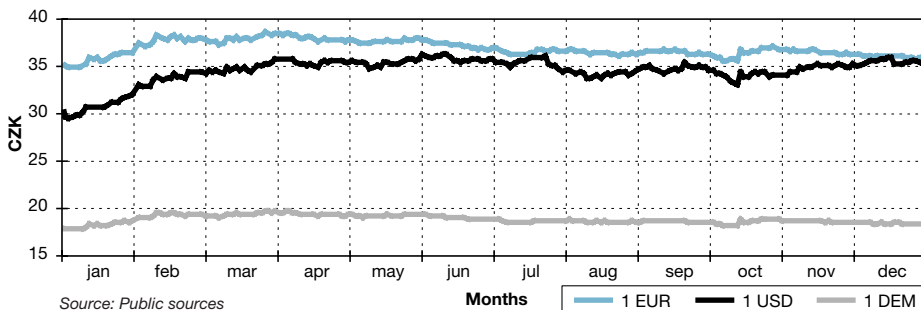
The oppressing dominance of mandatory expenditures in the state budget requires a fundamental reconsideration of the underlying laws governing social welfare. First, the formula defining the minimum living standard should not be as generous for large households; child allowances, unemployment benefits, and sickness benefits should be better targeted and provide help only for those in need. Second, public administration should cut costs wherever possible. Third, retirement age should be increased further than currently planned and possibilities of early retirement should be strictly limited. This would provide the necessary time for preparing a major reform of the current pension system, which, if retained, is likely to squeeze the budget (and pension payments) to extremely low levels by the end of the next decade (see Section VI. 1). However, most of these measures require a strong political consensus as laws need to be passed in parliament. Under the current distribution of political power in the country, reaching this consensus is next to impossible. The most likely development is little action until looming problems accumulate, when the above mentioned measures will be enacted at a much higher economic and social cost.

Payroll Contribution Rates (in %)

| | Employee | Employer | Total |
|---------------------|-------------|-----------|-------------|
| A) Social Security: | 8 | 26 | 34 |
| of which Pensions | 6.5 | 19.5 | 26 |
| Sickness | 1.1 | 3.3 | 4.4 |
| Unemployment | 0.4 | 3.2 | 3.6 |
| B) Health Insurance | 4.5 | 9 | 13.5 |
| TOTAL (A+B) | 12.5 | 35 | 47.5 |

III.6 Exchange Rate

Evolution of Exchange Rates in 1999 (EUR, USD, DEM)



Source: Public sources

At the beginning of the economic transformation, the exchange rate was chosen to be the nominal anchor. It was pegged to a currency basket and evolved in a very stable manner. Monetary separation with Slovakia did not affect the Czech crown, but its Slovak counterpart suffered some devaluation. The Central Bank changed the composition of the currency basket three times. The last vintage consisted of the US dollar (35 per cent) and Deutsche mark (65 per cent); the percentages representing the relative importance of both currencies in Czech foreign trade. The full convertibility of the crown was implemented on October 1, 1995; however, this step was not paired with any change in the exchange rate regime. The former fluctuation band of ± 0.5 per cent was extended to ± 7.5 per cent on February 28, 1996. The stable exchange rate in the mild inflationary environment caused the crown to continually appreciate in real terms. Speculative attacks hit the crown in May 1997. The Central Bank proceeded with foreign exchange interventions and raised interest rates. However, the pegged exchange rate regime was eventually

abandoned. On May 26, 1997 the crown was let to float, and it depreciated. The Central Bank switched from using the exchange rate regime as its instrument to conduct monetary policy to inflation targeting. The Central Bank undershot its inflation target in both 1997 and 1998. So far the crown has been floating in troubled economic waters without taking any sharp turns. An unwelcome appreciation occurred mainly during the second half of 1999, and the Central Bank exercised counter-intervention purchases of foreign exchange while cutting its reference rate at the same time.

Exchange Rates of CZK to USD, DEM and SKK (yearly averages)

| | CZK/USD | CZK/DEM | CZK/SKK |
|------|---------|---------|---------|
| 1992 | 28.29 | 18.12 | n.a. |
| 1993 | 29.16 | 17.64 | 0.92 |
| 1994 | 28.78 | 17.75 | 0.85 |
| 1995 | 26.55 | 18.52 | 0.90 |
| 1996 | 27.14 | 18.06 | 0.86 |
| 1997 | 31.71 | 18.28 | 1.01 |
| 1998 | 32.27 | 18.33 | 0.83 |
| 1999 | 34.60 | 18.80 | 0.83 |

Source: CNB, 1999 CERGE-EI estimate

Structural Breaks in Exchange Rates of the CEE Countries

(Based on Kočenda, E.: Detecting Structural Breaks: Exchange Rates in Transition Economies. CERGE-EI Working Paper No. 149, 1999)

The exchange rate and its regime are important elements in the overall monetary policy of each country. Its significance is even more accentuated in the case of transition economies.

Any country in transition must undergo a stage of macroeconomic stabilization, which is inevitably accompanied by large shocks to macroeconomic fundamentals. The nature and magnitude of these disruptions affects the progress of economic development. Owing to the relative openness and the close economic relations among transition economies in Central and Eastern Europe and the European Union, the trend behavior of the exchange rate and the exchange rate regime play an important role in the economic development towards sustainable growth.

We analyzed the trend behavior of both nominal and real exchange rates of eleven CEE countries using monthly data from 1991 to 1997. We aimed to provide evidence about the existence of structural breaks in exchange rates series during transition. We tested: (1) whether there was a break or not, and if so, when it occurred; (2) whether a break coincides with an administrative step associated with the exchange rate or its regime; and (3) whether the timing of a break coincides with both the nominal and real exchange rate.

The summary of our findings can be divided into three groups associated with particular countries. The results have shown that Czech Republic, Hungary, Poland, Slovakia, and Slovenia either did not experience a structural break in their exchange rates or its effect was quite limited; the exchange rate behavior was relatively stable and the measures taken by monetary authorities were executed in a way that in general tended to enhance such stability.

Serious structural breaks in exchange rate behavior were found in Balkan countries (Albania, Bulgaria, and Romania). In Albania the structural break was entirely associated with massive devaluation of the exchange rate and revision of its regime. In Romania and Bulgaria, the break was allied to other monetary steps with regard to the foreign exchange market and price liberalization.

A series of events related to overall monetary reform and paired with alterations of the exchange rate regime form a complex environment that affected the trend behavior of exchange rates in the group of Baltic states (Estonia, Latvia, and Lithuania). In this case, it was not possible to point out at a single event that might have caused a structural break. Rather, the combination of monetary steps, some of them having an institutional character, was the cause of it.

We conclude that in less stable economies the measures adopted by monetary authorities were the cause of structural breaks in exchange rate behavior. In more stable economies the monetary steps tended to stabilize the exchange rate behavior.