CZECH ECONOMY IN 2002: RECORD-LOW INFLATION

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Abstract:
Gross domestic product continued to grow in 2002, faster than in the economies of most of the Czech Republic’s major partners, albeit at a slower pace than in 2001. The major driving force of economic growth was private consumption, followed by government consumption. Investment demand registered a slowdown as an indirect result of weak foreign demand.

2002 was the year of record-low inflation in the history of the Czech Republic - at the end of the year, the consumer price index stood at 0.6 %. During 2002, nominal appreciation of the Czech currency accelerated - the koruna appreciated against the euro by almost ten per cent. The labor market was severely hit by the general economic slowdown and the unemployment rate anew reached the record-high level at the end of the year.

Keywords: Czech economy, world economic growth, monetary policy, external balance, labour market

JEL Classification: O11, O52, E20

1. Summary

In 2002, the Czech economy continued growing considerably faster than the economies of most of the Czech Republic’s major partners, albeit at a slower pace. In 2002, the growth reached 2.0 %, after 3.1 % in 2001 (see Figure 1). The major driving force was private consumption, remaining the most dynamic and stable factor of the Czech economic growth.

Czech households benefited from the historically lowest inflation in the last 12 years. Real household incomes grew by 5 % during the first three quarters of 2002,
and together with the historically low interest rates, these were factors increasing the propensity to consume. In 2002, household consumption grew by 3.8 %.

Gross fixed capital formation was influenced by a considerable investment demand slowdown, due to a dim outlook of the EU business climate, and to a fall of investment activity of some big investors. Fixed capital investment as a result grew by 0.6 % during the 2002, with construction investment practically stagnating, while investment in machines and equipment increased by 1.7 %.

The contribution of the external sector was again negative due to low foreign demand combined with strong exchange rate of CZK and after-floods increased

| Table 1 |
|---------|
| **Main Macroeconomic Indicators** |
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003f |
| GDP growth | %, real | -0.8 | -1.2 | 0.5 | 3.3 | 3.1 | 2.0 | 2.8 |
| Industrial production | %, real | 4.5 | 1.6 | -3.1 | 5.8 | 6.8 | 4.8 | 4.5 |
| Construction output | %, real | -3.9 | -7.0 | -6.5 | 5.6 | 9.6 | 2.5 | 4.0 |
| Retail sales | %, real | 1.9 | -7.2 | 2.1 | 4.6 | 4.3 | 2.7 | 3.5 |
| Inflation | %, average | 8.5 | 10.7 | 2.1 | 3.9 | 4.7 | 1.8 | 1.0 |
| Inflation | %, e.o.p. | 10.0 | 6.8 | 2.5 | 3.9 | 4.1 | 0.6 | 1.6 |
| Industrial producer prices | %, e.o.p. | 5.7 | 2.2 | 3.4 | 5.0 | 0.8 | -0.7 | 1.5 |
| Nominal wages | %, average | 10.5 | 9.3 | 8.2 | 6.6 | 8.5 | 7.3 | 7.0 |
| Unemployment rate | %, e.o.p. | 5.2 | 7.5 | 9.4 | 8.8 | 8.9 | 9.8 | 10.0 |
| Exports | %, nom. | 20.0 | 17.7 | 9.2 | 23.3 | 13.1 | -1.4 | 2.5 |
| Imports | %, nom. | 15.3 | 7.5 | 7.5 | 28.2 | 11.7 | -4.3 | 3.0 |
| Trade balance | CZK bill. | -151.2 | -76.3 | -69.9 | -126.8 | -116.7 | -74.4 | -80 |
| Current account | USD bill. | -3.2 | -1.0 | -1.1 | -2.4 | -2.4 | -3.7 | -2.5 |
| Current account | % of GDP | -6.1 | -1.9 | -2.0 | -4.8 | -4.3 | -5.3 | -3.6 |
| Financial account | USD bill. | 1.1 | 2.6 | 2.5 | 3.4 | 4.0 | 10.4 | 3.5 |
| Financial account | % of GDP | 2.1 | 4.8 | 4.7 | 6.8 | 7.2 | 14.1 | 5.0 |
| State budget | % of GDP | -1.0 | -1.6 | -1.6 | -2.4 | -3.3 | -2.0 | -2.7 |
| Official FOREX reserves | USD bill. | 9.8 | 12.6 | 12.9 | 13.1 | 14.5 | 23.7 | 24.0 |
| M2 growth | %, e.o.p | 10.1 | 5.2 | 8.1 | 6.5 | 12.4 | 3.2 | 5.0 |
| PRIBOR 3M | %, average | 16.00 | 14.33 | 6.85 | 5.4 | 5.2 | 3.6 | 3.0 |
| CZK/EUR | Average | 35.75 | 35.85 | 36.88 | 35.6 | 34.1 | 30.8 | 30.5 |
| CZK/USD | Average | 31.71 | 32.27 | 34.60 | 38.6 | 38.0 | 32.7 | 29.5 |

1) Until 1998 the CZK/DEM exchange rate converted by 1 EUR = 1.95583 DEM.
Source: Czech National Bank, Czech Statistical Office, forecast by Komerční banka (bold figures).
demand for imports, but this negative impact was lower than in 2001. The current account deficit for 2002 was slightly above 4% of GDP.

Year 2002 was the year of record-low inflation in the history of the Czech Republic. During the whole year, the price developments registered significant slowdown, due to combination of strong currency, declining import prices and weakening both foreign and domestic demand. At the end of 2002, consumer price index stood at 0.6% (and producer price index at -0.7%). Average index of consumer prices for the whole year declined to 1.8%, its lowest level since 1990.

In 2002, nominal appreciation of the Czech currency accelerated. The CZK appreciated against the EUR by 9.6%, compared to the average 2001 exchange rate. The strong currency hit one part of the Czech exporters, but only to some degree. The trend of rapid appreciation of the CZK stopped at the end of 2002 when the Czech koruna returned to its January 2002 level.

Industry registered a solid growth in 2002, industrial output increasing by 4.8%. The growth in industry has been pulled mainly by foreign-controlled companies; this sector represents the most dynamic part of the Czech industry. The share of foreign controlled companies in industrial sales amounted to 46% at the end of 2002, these companies keeping the competitiveness of the Czech exports. Weak demand hit also the construction, the construction output increasing by 2.5% in 2002. Strong consumer demand supported the retail sales which increased by 2.7% in 2002.

The labour market was severely hit by the general economic slowdown in 2002. During the year the unemployment rate increased by almost one percentage point – from 8.9% in December 2001 to 9.8% at the end of December 2002. The unemployment rate thus anew reached its record-high level since the beginning of transformation.

**Outlook for 2003**

Growth in 2003 will depend critically on the speed and timing of economic revival in countries of our largest trade partner – the European Union. For 2003, there exist two scenarios of economic dynamics, and of Czech GDP growth.

The first, pessimistic one expects GDP growth in the CR of around 2.8% due to an economic revival within the EU coming only in the second half of 2003, while in the first and second quarters of the year, EU economic growth would be very hesitant and slow. Any positive impact of external environment on the Czech economy would thus come only in the fourth quarter, and growth potential of the Czech economy would thus be limited.

The second, optimistic scenario starts from the assumption that EU economy will already start to revive between the first and second quarters of 2003. Its revival will drive Czech exports, and thereby also industrial production and fixed capital investment. In this case, growth of Czech GDP would reach 3.3% in 2003.

Household consumption will continue to be the main driving force of domestic demand. The rising deficit of the government budget signals that the government consumption will continue to grow. Fixed capital investment will grow hesitanty in the first half of the year, and more strongly in the second one.

The production in industry will follow the path of foreign demand and capital investment. The growth trend will be the same as in 2002, with some acceleration in the second half of 2003. For the whole year we expect the growth of around 4.5%. Gradual improvement of investment climate will influence the construction output – its growth rate will be approximately 5%. Low inflation and consumer sentiment will support spending of households – therefore our forecast is that retail sales will increase by 3.5% in 2003.
For 2003, we expect a significant slowdown of the appreciation trend of Czech koruna – which will mean a return to its longer-term trajectory of gradual appreciation. Strengthening of the currency will be driven by better-than-expected macroeconomic figures, the low level of inflation (average CPI will be at 1.0 %, end-of-year CPI under 2 %), and a continuing inflow of foreign direct investment (of about USD 3.5 bill). We expect the average CZK/EUR exchange rate for 2003 at 30.50.

The turnover in the adverse development of unemployment is crucially dependent on the recovery in the EU and therefore is not probable before mid-2003. The rate of unemployment will exceed 10 % in the first months of 2003 and will be declining slightly during the year, to be under this level at the end of December.

2. External Environment

Global performance of the world economy was sluggish in 2002. After clear marks of an improvement in the first half of the year, the revival halted in the leading world economies, and outlook for a fast growth in 2003 is rather cloudy. This concerns both the USA and, particularly, the Eurozone.

Table 2
World Economy (GDP growth in %, constant prices)

| Region                | 2002f | 2003f | 2004f |
|-----------------------|-------|-------|-------|
| U.S.A.                | 2.4   | 2.5   | 3.5   |
| Japan                 | -0.2  | 0.2   | 0.9   |
| Eurozone              | 0.8   | 1.2   | 2.4   |
| Asia (excl. Japan)    | 6.3   | 6.5   | 6.7   |
| Central and East Europe| 3.3  | 3.7   | 4.0   |
| Latin America         | -0.7  | 2.3   | 2.8   |
| World                 | 2.6   | 3.0   | 3.8   |

Source: Deutsche Bank Research, Société Générale, forecast by Komerční banka.

As Table 2 shows, economic performance of the eurozone was totally unsatisfactory mainly due to the practical stagnation of German economy (German GDP growth reached only 0.2 % in 2002 – he lowest growth rate within the last decade). Japan continued the long-term stagnation, and other regions (with respect to their weight in the world economy) were not able to compensate for lack of growth in advanced OECD countries.

2.1 USA

As shown in Figure 1, the U.S. economy overcame the 2001 recession relatively rapidly. However, growth in 2002 was fairly uneven, mainly due to the fact that private consumption alone was the main engine of growth. Inventories – especially in the first half of 2002 – went on declining, and fixed capital investment started a moderate revival only at the end of the year.

It can, however, be expected that growth in 2003 will speed up somewhat, especially in the second half of the year. Favourable interest rates and low inflation (again
below 2 %) will continue to support the growth of private consumption (almost 60 % of U.S. GDP). Consumer demand will probably shift slightly, from real estate to durable goods, including cars.

**Figure 1**

**U.S. Gross Domestic Product** (quarterly growth rates in %)

Business investment will not show any spectacular growth, but after two years of subdued activity, firms will be forced to invest in renewal of some equipment, especially information technologies and software. Productivity will again increase at the rate of 2 %, much exceeding the productivity growth rates in most EU countries. A weakening dollar will support U.S. exports, especially in manufacturing, which will slowly recover from the recession.

Main risks, that increase the probability that uneven growth will continue in 2003, are the imminence of the war with Iraq – plus insecurity about duration of a war – and the lasting volatility of the financial markets. These factors can have a negative impact on expected growth, and shift economic activity downward.

### 2. 2 Euroland

The economy of euro area, especially of some its largest countries, offers a much gloomier picture than the U.S. Growth performance of the EMU-12 countries was very weak in 2002, and slow growth can also be expected in the first half of 2003. Especially the German economy is on the brink of recession. The 0.2 % growth in 2002 has been the worst result since 1993. The large economies within eurozone are especially hindered by the fact that long-lasting structural illnesses are not being cured, the elasticity of labour markets, as well as other factors, are not improving (see Table 3). In spite of a decade of existence of the common market, financial markets remain split, liberalization is slow in some areas, especially of market services, governments oppose over-the-border mergers of firms considered as priorities for the national economies.

The Stability Pact – in spite of its much more flexible interpretation – reduces significantly the use of fiscal policy as a tool supporting growth revival. The European Central Bank (ECB) had long hesitated to lower the interest rates, and did so only at the very end of 2002. Yet it is clear that the present level of the ECB basic rate – 2.75 % – is too high for Germany and represents here another factor hampering the revival of the economy.
The eurozone economy is expected to grow faster only in the second half of 2003. Declining inflation, and hence increasing real incomes, will induce higher household spending. Higher world demand will positively influence exports, which – together with private consumption – will be the engines of economic growth. However, the strengthening euro against the dollar can somewhat dampen the growth of European exports.

The reluctance to undertake any substantial structural reforms will nevertheless continue. Such reforms are a condition for faster and more stable growth, especially in Germany (but also in Italy and to a lesser extent in other countries). As a result, even during revival, Europe will lag behind the U.S. growth, especially as concerns productivity growth rates: those will, in eurozone, further be third-to-half lower than in the U.S. The positive impact of flexibility of economic structures on growth can be illustrated by Table 3: the difference in growth rates between Germany and Ireland is tremendous.

For the Czech economy, the above outlook is not very encouraging. Demand for Czech exports (of which more than two thirds head for the EU, and more than 60% go to eurozone) will increase only slowly, starting perhaps from the second, but probably only from the third quarter of 2002.

2.3 Slovakia

The return in Slovakia of a right-wing government in September 2002 parliamentary election, and the confirmation of Slovakia’s perspective of entering the EU in May 2004, have strongly improved the position of Slovak Republic in the eyes of foreign investors. Slovak koruna has strengthened significantly in the last quarter of 2002, and its upward trend will continue. Strong exports are fostering economic growth in 2003, as they did in 2002. Increased fixed capital investment can be expected in 2003, supported by the inflow of foreign direct investment, as the before-the-election reluctance of investors has receded. Foreign investment can also be reinforced by the government intention to complete some large privatization actions during this year.
On the other hand, 2003 will not be a favourable year for private consumption. After an over 5% real growth in 2002, growth will diminish to just below 2% in 2003. Main cause will be the long-postponed deregulation of energy prices and rents, as well as the start of first steps of a fundamental reform of the pension and medical-care system. A significant increase of consumer prices will slow the growth of real incomes, and diminish the households’ propensity to consume.

Price increases will also induce a growth of inter-bank interest rates, from roughly 6.5% at the end of 2002 to the level of 8 – 9% during 2003. National Bank of Slovakia (NBS) is likely to take further steps to cut the basic interest rates only after the first results appear of the declared Government Policy Statement to lower the public finance deficit from the present level of 7% to 3% at the end of 2006 (to fulfil one of the most important Maastricht criteria, so that Slovakia can be ready to join the eurozone in 2007-2008). It, however, cannot be excluded that the NBS will be forced to cut interest rates much earlier, facing a strong upward pressure on the koruna, due to an inflow of foreign direct investment. The volume of foreign direct investment (FDI) inflows is assessed at 5 – 6% of GDP over 2003 – 2006.

Table 4
Slovak Republic - Main Macroeconomic Indicators

|                                | 2002     | 2003f    | 2004f    |
|--------------------------------|----------|----------|----------|
| GDP (% of const. prices)       | 4.4      | 3.8      | 4.5      |
| Industrial production (% of const. prices) | 7.0      | 8.0      | 8.5      |
| CPI (% average)                 | 3.3      | 8.7      | 6.8      |
| General government deficit (% of GDP) | -7.0     | -5.0     | -4.0     |
| Current account deficit (% of GDP) | -8.2     | -6.6     | -5.5     |
| SKK/EUR (average)              | 45.3     | 40.2     | 38.1     |

Source: Institute of International Finance, forecast by Komerční banka.
3. **External Balance**

Table 5  
**Balance of Payments (CZK bill.)**

|                          | H1 2001 | 2001 | H1 2002 | 2002f | 2003f |
|--------------------------|---------|------|---------|-------|-------|
| Current account          | -48     | -101 | -44     | -121  | -90   |
| o.w.: Foreign trade      | -38     | -119 | -21     | -75   | -80   |
| Balance of services      | 21      | 54   | 18      | 35    | 60    |
| Balance of incomes       | -23     | -48  | -48     | -97   | -100  |
| Transfers                | 4       | 13   | 6       | 29    | 30    |
| Capital account          | 0       | 0    | 0       | 0     | 0     |
| Financial account        | 68      | 153  | 217     | 340   | 150   |
| o.w.: Direct investments | 95      | 183  | 184     | 250   | 100   |
| Portfolio investment     | 19      | 35   | 11      | 47    | n.a.  |
| Long-term capital        | -4      | 3    | 12      | n.a.  | n.a.  |
| Short-term capital       | -11     | -65  | 9       | n.a.  | n.a.  |

Source: Czech National Bank, forecast by Komerční banka.

3.1 **Current Account**

**Trade with Goods**

The revised 2002 deficit – CZK 74.4 bill. – was a favourable result, down from CZK 116.7 bill. in 2001. The mix of strong exchange rate, weak foreign demand and relatively low raw material prices led to decline both of imports and exports in 2002. Imports declined by 4.3 %; September 2002 was the only month registering growth of imports, which was, however, one-off consequence of the August floods.

The exports have been attenuated in the course of the whole year, oscillating around the average rate of decline (-1.4 %, y/y). On the other hand, the slowdown

Table 6  
**Slowdown of Imports and Improvement of Trade Balance**

|              | Slowdown of exports (%) | Change in trade deficit (CZK bill., y/y) |
|--------------|-------------------------|----------------------------------------|
| 2002:Q1      | -6.6                    | -17.2                                  |
| 2002:Q2      | -5.1                    | -13.1                                  |
| 2002:Q3      | -3.5                    | -9                                     |
| 2002:Q4      | -2.2                    | -3                                     |

Source: Czech Statistical Office.
of imports was most significant in the first quarter of 2002, and was weakening afterwards. Therefore, the improvement of the trade deficit was concentrated especially in the first half of the year (see Table 6).

Similarly to 2001, development of prices in foreign trade affected the real trade balance favourably. The import prices declined by approximately 8 % and the export prices only by 6.5 %. If the import and export prices remained the same as in 2001, the imports would rise by 9.8 %, while the exports would increase by 6 %, in 2002. Trade deficit would reach to CZK 110 bill. Favourable developments of prices in foreign trade thus “improved” the trade balance by approximately CZK 35 bill.

Foreign trade prices were affected mostly by exchange rate and by the world prices of raw materials. The importance of strong exchange rate of CZK can be illustrated by different developments of foreign trade in CZK and EUR. The imports in EUR increased by 5.8 % (y/y) in 2002, the exports rose by 9.1 % (y/y). The deficit thus reached EUR 2.4 bill. (CZK 74 bill.), down from 3.4 bill (CZK 116 bill.) in 2001. Strong exchange rate hit Czech exporters but also helped the importers, the favourable impact on the part of imports being more significant. The positive impact of strong CZK on trade balance can be estimated at approximately one quarter of the overall price effect. Major part of the trade balance improvement in 2002 belongs to developments of world raw material prices.

Raw materials, chemicals and semi-manufactured products represent 40 % of Czech imports. Import prices of fuels (which represent approximately 7 % of imports) were by almost 20 % lower in 2002 than in 2001. Nevertheless, the year-on-year index of import prices was declining in the course of 2002 (from -23.7 % in January to -6.8 % in November 2002). Import prices of chemicals and semi-manufactured products were approximately by 10 % lower in yearly comparison (with only very moderate increase in the last quarter of 2002). The developments of oil prices are transmitted to chemicals and semi-manufactured products with some time delay. Slight “recovery” of imports was thus a consequence of increasing import prices (in a yearly comparison). The positive impact of terms of trade was gradually declining in the course of 2002.

Figure 2
Import Prices, Export Prices, Terms of Trade (growth rates in %)

Source: Czech Statistical Office.
The decline in trade deficit was due both to the decline of the deficit in the trade with raw materials and chemicals (by CZK 8.6 bill.) and the increase of the surplus in the trade with machinery and transport equipment (by CZK 42.4 bill.). The impact of raw material prices must be mentioned again: the deficit in trade with oil and gas declined by 24.4 bill. in 2002. Volatile results in car industry resulted in decrease of surplus by CZK 7.6 bill.

**Services, Incomes, Transfers**

Balance of services deteriorated in 2002. In 2002, the surplus amounted to CZK 22 bill., down from CZK 54 bill. in the same period of 2001. Transport and tourism registered net profits of CZK 28 bill. and CZK 45 bill., respectively, other services being – as usually – in the red numbers (CZK -80 bill). While transport and tourism showed only minor changes against 2001, other services were the main cause of declining surplus.

Strong exchange rate of CZK (which reached its record-high level in the third quarter) also contributed to weak result.

Balance of incomes deteriorated by almost CZK 15 bill., the deficit amounting to CZK 97 bill. in 2002. This is the adverse side of massive inflow of foreign direct investments. In 2000, the incomes balance burdened the balance of payments by a higher deficit than was the trade deficit.

**3.2 Financial Account**

The surplus of the financial account amounted to CZK 340 bill. in 2002. This massive inflow of capital was again a consequence of strong inflow of foreign direct investments. The inflow from the beginning of the year reached CZK 270 bill.

The deficit of portfolio investments was a great change against 2001. The purchases of Czech investors (mostly Czech commercial banking sector) reached CZK 75 bill., major part concentrated to long-term debt securities.

Other investments showed opposite tendencies than a year earlier, total inflow amounting to CZK 122 bill.

**Outlook for 2003**

The recovery in Western Europe seems to be only reluctant and hesitant. More dynamic recovery probably will not come before mid-2003. Accelerated growth in the European Union will lead to slight recovery of exports, which will be more significant in the second half of 2003, the growth of exports, however, not exceeding 3 % for the whole year. On the other hand, the recovery of exports will promote also Czech imports due to high import intensity of Czech exports.

The full-year trade deficit in 2003 should not be much higher than in 2002, most probably not exceeding CZK 80 bill. Balance of services will show an improvement, returning back to medium-term trends. The incomes balance will continue to deteriorate, the deficit reaching higher levels as the trade deficit in 2003. The current account deficit will therefore amount approximately to CZK 90 bill. in 2003 (USD 3 bill.). Under the assumption of almost 3 % growth of GDP, the ratio of the current account deficit on GDP will decline to 3.5 %. Expecting the inflow of FDI of about USD 3.5 bill., external balance should not represent any risks.
4. **Gross Domestic Product**

In 2002, the Czech economy continued growing considerably faster than the economies of most of the Czech Republic’s major partners, albeit at a slower pace. In 2002, the growth reached 2.0 % after 3.1 % in 2001 (see Figure 3). The major driving force was private consumption, remaining the most dynamic and stable factor of the Czech economic growth.

![Figure 3](https://via.placeholder.com/150)

**Quarterly Gross Domestic Product Growth (in %)**

Source: Czech Statistical Office.

Czech households profited from the historically lowest inflation in the last 12 years. Real household incomes grew by 5 % during the first three quarters of 2002, and together with the historically low interest rates, these were the factors increasing the propensity to consume. Especially the younger and middle generations increased their spending using also advantageous consumer credit, while mortgage credit also grew rapidly. In 2002 household consumption grew by 3.8 %.

Gross fixed capital formation was influenced by a considerable investment demand slowdown, due to a dim outlook of the EU business climate, and to a fall of investment activity in the field of large shopping centres, production sites and warehousing capacities. Fixed capital investment as a result grew by 0.6 % during the 2002, with construction investment practically stagnating, while investment in machines and equipment increased by 1.7 %.

The contribution of the external sector was again negative due to low foreign demand combined with strong exchange rate of CZK and after-floods increased demand for imports, but this negative impact was lower than in 2001.

**Outlook for 2003**

Growth in 2003, as shown by the analysis of external environment (see above, Part 2) will depend critically on the speed and timing of economic revival in countries of our largest trade partner – the European Union.

For 2003 there exist two scenarios of economic dynamics, and of Czech GDP growth. The first, pessimistic one expects GDP growth in the CR of around 2.8 %, due to an economic revival within the EU coming only in the second half of 2003, while in the first and second quarters of the year, EU economic growth would be very hesitant and slow. Any positive impact of external environment on the Czech economy would thus come only in the fourth quarter, and growth potential of the Czech economy would thus be limited.
The second, optimistic scenario starts from the assumption that EU economy will already start to revive between the first and second quarters of 2003. Its revival will drive Czech exports, and thereby also industrial production and fixed capital investment. In this case, growth of Czech GDP would reach 3.3% in 2003.

With respect to domestic demand, both scenarios use the same assumptions. Household consumption will continue to be the main driving force of domestic demand. Nominal incomes growth will be somewhat lower than in 2002; the average price increase (1.8% in 2002, 1.0% in 2003) will practically compensate for the moderate deceleration of nominal incomes, so that real incomes growth can be expected to remain on the same level as in 2002. The positive impacts of both low interest rates, and aggressive sales methods by suppliers will continue to support the household propensity to consume.

The approved deficit of the government budget (at the record level in the whole history of the CR) signals that government consumption will continue to grow. Fixed capital investment will grow hesitantly in the first half of the year, and more strongly in the second. Investment in machines and equipment is assumed to continue growing faster than construction investment. A turn in this proportion is to be expected only in 2004, when our EU accession will increase substantially the flow of EU funds for infrastructure, where the construction part is overwhelming.

5. Domestic Demand

5.1 Industry

Growth of industrial output continued in 2002, at a pace similar to that in the second half in 2001, increasing by 4.8%. Growth in industry registered one-off drop in production caused by the August floods. In September 2002, however, industrial output returned back to medium-term growth path. In the course of the whole year, the development of output did not register significant fluctuations: the growth of output amounted to 4.5% in the first half of the year and to 5.0% in the second one. However, the development of sales showed strong volatility in the first half of the year, growing much slower than industrial output (2.0%). In the second half of 2002, the growth of sales went more in line with the growth of output, reaching 4.7%.

In spite of weak foreign demand, the growth of industry continued to be pulled by the exports. While industrial sales increased by 2.8%, January to November 2002, direct export sales increased by 14.1%. Weak foreign demand deepened the dividing line between prosperous and non-prosperous industrial firms. Continuing restructuring in industry was thus a consequence of increased competition.

One part of producers – especially companies under foreign control – was able to export in spite of weak demand and strong exchange rate of CZK. Foreign controlled companies account for almost one half of total industrial sales and represent the major driving force in the Czech industry. Strong exchange rate resulted in growing pressures on effectiveness. The competitiveness of Czech exports has been kept mostly by foreign controlled companies.

Manufacturing industries were the source of growth in industry. On the other hand, mining and quarrying as well as electricity, gas and water supply industries stagnated. Manufacturing was pulled by rubber and plastic products, manufacture of electrical and optical equipments (growth rates of 18% and 30%, y/y, respectively). Electrical and optical equipment and car industry account for almost half of direct export sales. These industries were the only ones showing growth of direct export sales also in current prices in 2002. Car industry has been showing volatile results both of sales and output during 2002, direct export sales increasing by 5%.
Electrical and optical equipment gained on importance, with direct export sales increasing by more than 50 % (in current prices). At the same time, direct export sales in industry increased by 6 % (at current prices). Electrical and optical appliances thus was the major source of industrial growth in 2002, confirming again the importance of foreign capital (having in mind that both car industry and manufacture of electric and optical appliances are almost completely under foreign control).

Growth of industrial output was accompanied by continuing decline in industrial employment which had begun as early as in the last quarter of 2001. The employment in industry declined by 2.8 %, January – November 2002, being somewhat lower in manufacturing (by 2.4 %). The decline in employment was most significant in manufacture of coke and chemical industry. On the other hand, car industry registered growing number of employees.

Productivity of labour in industry outpaced the growth of real wage (5.7 % and 4.0 %, respectively). Ratio between growth of productivity and real wage in industry was thus more favourable than was the case for the whole economy.

Figure 4

**Industry: Domestic and Direct Foreign Sales** (growth in %)

![Graph showing domestic and direct foreign sales growth](image)

Source: Czech Statistical Office.

Figure 5

**Growth in Industry, Construction and Retail Trade** (growth rates in %)

![Graph showing growth rates in industry, construction, and retail trade](image)

Source: Czech Statistical Office.
5.2 Construction

Contrary to 2000 and 2001 when construction was the most rapidly growing segment of the Czech economy, significant slowdown occurred during 2002. First signals of slowdown appeared as early as in the last quarter of 2001, when construction started to reveal highly volatile monthly results. In 2002, construction output increased by 2.5%, down from 9.6% in 2001. The slowdown was predominantly a consequence of generally lower investment demand in the Czech economy. Also, statistical bases for comparison from 2001 were high, pushing the growth rates down.

Data on capital inflow indicated that – as of the first quarter of 2002 – the inflow of greenfield FDI weakened which had affected the construction of assembly halls and other big construction projects. The most promising tendency which in the Czech construction in 2002 was the recovery of housing after several years of recession and stagnation. First signs of recovery of housing have appeared as early as in February 2002, following months confirming growth trend. The number of flats permissions increased by 30.7%, January to November 2002. The demand in construction has thus shifted from shopping centres to housing construction. The segment of housing construction (representing 20% share on the whole construction output) is, however, too small to pull the construction output. In the last quarter of 2002, the demand for construction works was promoted also by after-floods reconstruction.

Contrary to industry, employment continued to grow in construction. In 2002, the number of employees increased by 2%. On the other hand, the ratio between the growth of labour productivity and that of real wages has been developing unfavourably since February 2002. In 2002, labour productivity increased by 0.3%, while real wages increased by 4.2%. Nevertheless, the overall low inflationary environment in the Czech economy does not permit to transmit these potential inflationary pressures to other segments of the economy.

5.3 Retail Trade

Consumption of households remained the most dynamic and stable factor of the Czech economic growth. Nevertheless, as of June 2002, moderate slowdown was observed in this segment of demand, too. Therefore, the growth of retail sales strongly differed in the first and second half of the year. In the first half of 2002, retail sales increased by 3.3%. At the same time, private consumer demand increased by 4.6%. In the second half of the year, however, retail sales grew by 1.8% only. The full year growth in retail thus reached 2.7%, down from 4.3% in 2001.

Also, while the retail trade growth rates grew at a stable pace until May 2002, oscillating around 4% level, strong volatility has been registered as of June 2002. The volatility of retail trade figures in the second half of 2002 was deepened by the August floods. The slowdown in retail occurred also due to increasing labour market pressures, which do not allow the consumers to keep optimistic expectations about their future economic situation.

Food and fuels sales grew most rapidly in 2002 (by 7.7% and 4.9%, respectively, January to November 2002). Fuel sales were supported both by relatively favourable developments of fuel prices and by low statistical bases from the previous year. The world oil prices have not reached – till December – their 2001 levels, promoting fuel sales. Food items were the most reliable part of consumer basket not witnessing significant fluctuations in individual months. Car sales and repairs declined by 1.9%, sales of non-food consumer goods increased by 1.9% indicating growing cautiousness of consumer demand. Also, recovery of housing (partly finan-
cated by mortgages) had partial crowding out effect affecting primarily the car and other non-food items sales.

**Outlook for 2003**

Year 2002 figures confirmed that one part of Czech industrial producers (especially foreign-controlled companies in car industry and manufacture of electrical and optical appliances) has been able to export even under strong currency and weak foreign demand and has thus been able to keep the growth in industry on solid level. The picture will not change in the first half of 2003. In the second half of the year a slight improvement should come. Therefore, in 2003, the growth in industry will reach approximately 4.5%.

In the first half of 2003, the post-flooding demand impetus should continue. However, low investment demand will preserve in the rest of 2003. Non-privatization related FDI inflow will continue, although not in the extent of 2000 or 2001. Housing will continue to grow being, however, too small to pull the construction output so robustly as big construction. The full-year figure of construction output growth in 2003 will therefore amount to approximately 5%.

We expect the consumer demand and sentiment to remain on similar level as in the second half of 2002. Low inflation will support spending of households. On the other hand, growth of real wages will be lower than in 2002. Favourable conditions on consumer loans and mortgages will continue to push the households spending up. In the longer run, crowding out effect might appear, hitting especially spending for non-food items. Retail sales will increase by 3.5% in 2003.

**6. Inflation**

Year 2002 was the year of strong desinflation in the Czech economy. Producer prices were in the deflation range during the whole year and the consumer prices registered a record-low growth during the last 12 years. Weak foreign demand combined with low world raw material prices and strong exchange rate of CZK resulted in decline of import prices which influenced Czech price levels most significantly. Domestic inflationary pressures were attenuated also by weaker domestic inves-
ment demand. Producer and consumer prices went more in line than in previous year, the gap narrowing to approximately one percentage points at the end of 2002 (see Figure 6).

6.1 Consumer Prices

The average inflation rate in 2002 reached 1.8%, down from 4.7% in 2001, its historically lowest level since 1990, i.e. also from the beginning of the transformation process in the Czech Republic.

Consumer prices were falling during the whole year. Month-on-month indices of consumer prices have been negative since March until December 2002. The year on year decrease in inflation was very strong: the inflation rate fell from 4.4% in January 2002 to 0.6% in December 2002. The year on year rates of CPI have been declining since August 2001 (July 2001 was the month of record-high inflation since the end of 1998 when the CPI amounted to 5.9%, y/y). In the course of 18 months, the year-on-year CPI declined by more than five percentage points.

The inflation rate thus got under the inflation target corridor set by the Czech National Bank and was by approximately 3 percentage points lower than predicted by most analysts and institutions at the beginning of 2002. However, it is necessary to note that the disinflation was going along with rather solid economic growth.

Prices of some non-tradables (health, education, catering) were the only items registering growth in yearly comparison. In December 2002, prices of housing were by 4.5% higher than in December 2001, representing approximately 25% of consumer basket. Prices of education and health care were higher by 4.2% and 4.1%, respectively, having, however, only negligible weight (2%). Almost all the tradables showed a decline of prices. The decline of food prices (accounting for almost 20% of total consumer basket) was most significant for the CPI, being by 5.4% lower in December 2002 than a year before.

6.2 Producer Prices

Industrial producer prices turned to deflation in February 2002 and have been moving in the deflation range since then. The lowest figure was registered in July 2002, PPI reaching -1.1%. The decline of PPI in the course of 2002 was not so significant as the decline of CPI – yearly PPI declining from 0.6% in January to -0.7% in December. However, the yearly PPI has been continuously declining since February 2001 (from the level 4.7%). The decline of PPI thus began before the decline of CPI – the timing and intensity of CPI and PPI declines confirms the influence of PPI on CPI.

As mentioned before, the favourable developments in world raw material prices combined with strong CZK are the major factors behind the PPI developments. Also productivity of labour in industry still outpacing the growth of real wage (5.7% and 4.0%, respectively) pushes the PPI down.

The PPI decline was most pronounced in manufacturing industries, where – in December 2002 – the yearly PPI stood at -1.3%. Within manufacturing industry, food industry showed most significant decline of 3.5% as a consequence both of declining agricultural prices and low import prices. On the other hand prices of petrochemical industry were by 2.1% higher than at the end of 2001 as a consequence of the development of world oil prices. Also, the sector of utilities (electricity, gas and water) pushed the PPI up, registering yearly growth of 3.3% in December 2002.

Prices in construction increased by 2.1% in 2002. Favourable relation between labour productivity and real wages keeping construction prices under control was
broken at the beginning of 2002, and the adverse relation between labour productivity and real wages continued during the whole year. However, potential inflationary pressures from construction could not be transferred to other sectors due to general low inflationary environment.

Since May 2002 strong drop in agricultural prices has been continuing. Agricultural prices declined by 15.6 % (y/y) in December 2002. Decline of agricultural prices affected quite significantly both the decline of CPI and PPI.

**Outlook for 2003**

Producer prices in industry will reflect the developments of world raw material prices, especially oil prices. The main risk and factor of uncertainty in 2003 developments of world oil prices is the Iraq conflict. As for other raw materials, the exchange rate of CZK will remain strong, which will continue to make the imports cheaper. Therefore we expect the PPI to increase slightly in 2003 – the PPI should stand at approximately 1.5 % (y/y) at the end of 2003. Also consumer prices should show an upturn, growing, however, very slightly in 2003. The yearly increase in consumer prices should reach 2.0 % in December 2003, average CPI being at 1.4 %.

### 7. Monetary Policy

#### 7.1 Exchange Rate

Nominal appreciation of the Czech koruna further accelerated in 2002. On average, the CZK appreciated by 9.6 % against the average CZK/EUR rate of 2001. Our prediction has thus proved right that average appreciation of Czech currency can reach 10 %.

The pattern of CZK appreciation during 2002 was, more or less, that of a sinusoid. From its initial value of 31.68 CZK/EUR the koruna gradually appreciated reaching, on July 10, 2002, its historical maximum of 28.97 CZK/EUR. As Table 7 shows, the Czech National Bank was trying to stop this trend by a series of repo rate adjustments, as well as by open market operations. Only a radical lowering of the repo rate by 75 basic points at the end of July brought some results; in the fol-
Following four months, the koruna exchange rate moved within a narrow interval around 30.50 CZK/EUR.

Exchange rate appreciation was favourable for low inflation, making imports cheaper, but at the same time it impaired the position of Czech exporters. Over the whole year, exporters were actively impelling the government and the Czech National Bank to steps toward a weakening of the currency. As a result, the CNB at the start of November undertook another cut of the repo rate by 25 basic points, to a historical minimum in the whole existence of the Czech Republic (over the next five weeks, the basic interest rate in the CR was under the level of the ECB basic rate). That cut, in combination with open market operations, and with negative figures indicating a deepening trade deficit and a slowdown of GDP growth (both figures were based on wrong statistical data and were revised fundamentally in January 2003), led to a gradual weakening of the koruna to levels around 31.50 CZK/EUR. On December 31, 2002 the exchange rate ended at 31.60 CZK/EUR, only 0.3 % above the level it had at the start of 2002.

For 2003, we expect a significant slowdown of the appreciation trend of Czech koruna – which will mean a return to its longer-term trajectory of gradual appreciation. Strengthening of the currency will be driven by better-than-expected macroeconomic figures, the low level of inflation in the first half of 2003, and a continuing inflow of foreign direct investment. Hindering factors will be both the external insecurities (Iraq war, and a slow revival in the EU) and by internal ones – namely, discussions on the nature of the reform of public finance. We expect the average CZK/EUR exchange rate during 2003 to move within the interval of 30.50 – 31.00.

The expected trends in macroeconomic fundamentals, especially inflation and economic growth, suggest that the CNB will leave the interest rates unchanged (after the last cut by 25 basis points on January 30, 2003) at least in the first half of 2003. The timing and the size of changes will primarily depend on inflation in the third and fourth quarters of this year.

7.2 Czech Republic and the European Monetary Union

After the Copenhagen Summit decision that the Czech Republic (together with other nine candidate countries) is to become European Union member on May 1, 2004, economic discussions concentrate around the question when the CR will be able to join the European Monetary Union.

Table 8 shows how in 2002 the CR did, or did not, fulfil the so-called Maastricht criteria of nominal convergence. From both the table and the trends in public finan-

| Date          | Repo rate |
|---------------|-----------|
| January 22, 2002 | 4.50 |
| February 1, 2002 | 4.25 |
| April 26, 2002  | 3.75 |
| July 26, 2002   | 3.0 |
| November 1, 2002| 2.75 |

Source: Czech National Bank.
ce it is apparent that cutting the deficit of public budgets is, and will be, the main task in fulfilling the conditions for joining the euro. As analysed below (see part 8), the most difficult of the Maastricht convergence criteria will be the fiscal deficits, which must be cut to (or under) 3 per cent. This task is even more ambitious, having in mind the need to add – after 2004 – around 0.5 % of GDP to spending (contributions to the EU budget, co-financing of investment spending and supplements to direct payments to farmers from the EU).

An analysis of the Institute of International Finance – a renowned think-tank of world banks – concludes that the Czech Republic will not be able to fulfil the Maastricht criterion of public finance deficit even in 2006 (see Table 8). That postpones the possibility of eurozone membership till 2008 or after, unless the government – in accord with the opinion of most economic analysts and of the Czech National Bank – undertakes a fundamental change of fiscal policy, and implements very fast radical measures to reform the public finance.

8. Fiscal Policy

Government budget ended in 2002 with a deficit of CZK 45.7 billion. This result is better than expected by analysts or by the Czech Ministry of Finance. The ability to keep the deficit at the level approved by the Czech Parliament (CZK 46.2 bill.) rested mainly on tax incomes that were higher than planned. The fastest growing item were taxes on income of legal persons (growth by 11.7 %). Also income from taxes on physical persons increased (by 4.5 %), as well as income from consumer taxes (by 4.7 %). Tax income from VAT decreased by 2.6 % due to participation of regions on this tax.

On the expenditure side, as always, social care expenditures were the largest item (with a 39.1 % share in total expenditures); they increased by 7 %. Pension payments grew by 6.6 %; unemployment benefits went up by 18.7 % (due to an increase of unemployment during the year).

Expenditures on social policy showed the same trends as in preceding years: due to unfavourable demographic trends, and to growing unemployment, the deficit of the pension system reached CZK 19.7 billion. Unemployment benefits grew almost by one fifth, while funds available for active employment policies fell by 15.3 % (or, by CZK 0.6 bill.). In spite of all proclamations, the government has practically resigned on the use of active employment policies in solving the serious economic and social problem of unemployment.

Table 8

| Czech Republic and Maastricht Criteria |
|---------------------------------------|
|                                       |
|                                       |
| | Maastricht | Czech Republic |
| | 2002 | 2002 | 2003f | 2004f | 2005f | 2006f |
|---------------------------------------|
| Public debt (% of GDP) | 60.0 | 20.3 | 27.9 | 30.9 | 34.1 | 37.4 |
| Public deficit (% of GDP) | 3.0 | 3.8 | 6.0 | 5.7 | 5.5 | 5.3 |
| Inflation (average) | 2.7 | 1.8 | 1.3 | 2.2 | 2.4 | 2.5 |
| Interest rate | 7.0 | 4.2 | 4.3 | 4.8 | 4.8 | 5.0 |

1) In ESA 95 standard.
2) Yields on 10-year government bonds.
Source: Eurostat, Institute of International Finance, forecast by Komercni banka.
A favourable trend of interest rates enabled a slower growth of expenditures on government debt service – with an economy of over CZK 3 bill. against the approved budget. Nevertheless, if compared with 2001, this expenditure increased by 7.3 %. That shows how the necessity to finance repeated (and growing) government deficits by bond emissions will burden the government budgets in future. The government budget for 2003 contains a historical deficit of CZK 111.3 billion – so that the trend of growing deficits, visible since the end of last decade, continues. The Finance Minister has presented to the government, in January 2003, a project of reform of the public finance, aimed – in its most radical version – at decreasing the public budgets deficit under 4 % of GDP in 2006, thus bringing the economy closer to the 3 % limit required by the Maastricht criteria as one of the conditions for joining the European Monetary Union.

| Table 9 |
|---|---|---|
| **Public Finance** (share in GDP in %) | | |
| | 2002 | 2003 | 2004f |
| Share of public budgets deficit in GDP | 3.8 | 4.7 | 4.6 |
| Share of public budgets deficit in GDP, excluding privatization receipts | 9.7 | 9.9 | 8.1 |
| Share of public debt in GDP | 20.3 | 23.0 | 24.5 |

Source: Ministry of Finance of the Czech Republic, estimates Institute of International Finance, Komerční banka.

However, this project – combining necessary cuts in social outlays with other steps reducing public expenditures – has faced a strong resentment from one part of the social-democratic ministers, as well as from a large part of Parliament deputies of that political party. The further fate of reform will be discussed during spring 2003; with high probability, the government will lean toward a moderate version of reform, meaning only cosmetic improvements of the state of public finance. That version would postpone the reduction of public finance deficits under 3 % of GDP till after (or around) 2010, with all respective consequences for joining the eurozone.

### 9. Labour Market

In 2002, the Czech labour market was notably hit by the overall economic slowdown. In the course of 2002, the unemployment rate increased by almost one percentage point – from 8.9 % in December 2001 to 9.8 % in December 2002. Spring months which are usually favourable for developments of unemployment followed regular seasonal trend, the unemployment rate reaching 8.7 % in June 2002. However, the decline of unemployment in first half of the year was less significant than in previous two years due to weaker demand for labour force. In July and August 2002, the fresh school-leavers pushed the unemployment rate up to 9.4 %. Until November 2002, the unemployment rate more or less stagnated at this value, year-end unemployment rate climbing to 9.8 % as a consequence of regular finishing of seasonal contracts in agriculture, forestry and construction.

The unemployment rate thus reached – for the second time after January 2000 – its record-high level since the beginning of the transformation. The month-on-month
increase in December 2002 was higher than in previous years – the pressures on the labour market were stronger than in 2000 and 2001.

Both supply and demand sides of the labour market showed deterioration in the course of 2002. The demand side was hit especially by weaker overall demand which did not allow domestic companies to hire additional labour force and create new vacancies. In December 2002, the number of vacancies declined by 11 thousands, year on year. Demand for labour thus declined mostly due to cyclical reasons.

The number of unemployed increased by 52.5 thousands people in the course of 2002, in December 2002 the unemployment exceeding the half-million level. Increasing unemployment has been strongly affected by intensive dismissals of labour force from industry, which was the segment with worst pressures on the labour market. The decline in employment in industry has been continuing for more than year both due to structural and cyclical factors. In 2002, the employment in industry declined by more than 50 thousands people.

Total employment declined by 0.3 % during the first three quarters of 2002. The employment declined most significantly in the primary sector, the decline in the secondary sector being also quite high, the respective figures were -4.1 % and -1.9 %. On the other hand, the employment continued to grow in the tertiary sector (by 0.7 %). Slow overall demand, however, decreased the absorption capacity of the tertiary sector, which could therefore employ only a small part of people dismissed from the primary and secondary ones.

As a consequence of developments of unemployed and vacancies, the ratio between unemployed and vacancies (the so-called UV ratio) has been deteriorating since September 2001. During 2002, this ratio increased from 9.5 in January 2002 to 12.7 at the year-end of the year. The UV ratio proved the increasing discrepancy between supply and demand on the labour market.

Figure 8
Unemployed, Vacancies (in thousands) and UV Ratio\(^1\)

![Graph showing Unemployed, Vacancies (in thousands) and UV Ratio](image)

1) Number of unemployed falling upon one vacancy.
Source: Czech Statistical Office.

Nominal wages increased by 7.5 % in the first three quarters of 2002. Due to low inflation, real wages grew only at a slightly lower pace (5.2 %). Average wage before taxation amounted to CZK 15,172. The growth of wages was more rapid in the public sector (9.8 %) than in the business one (7.1 %) as a consequence of one-off
increase of wage tariffs in the public sector. The inflation being much lower against previous inflation forecasts, growth of real wages was considerably higher than agreed in wage negotiations at the beginning of 2002.

Growth of real wages was one of the factors of economic growth in 2002. The growth of real wages combined with record low interest rates on mortgages and consumer loans boosted private spending. Due to overall low inflation, rapid growth of real wages did not represent risky factor for macroeconomic stability.

**Outlook for 2003**

The turnover in the adverse development of unemployment is crucially dependent on the recovery in the EU and therefore is not probable before mid-2003. In 2003, we expect regular seasonal developments: slight decline of the unemployment rate in spring, increase in summer months (as a consequence of school-leavers entering the labour market) and following slight autumn decline. The rate of unemployment thus will exceed 10 % in 2003 and will be declining slightly under this level at the end of 2003.