

# DEVELOPMENT OF KEY MACROECONOMIC INDICATORS AND COMMERCIAL INSURANCE IN V4 COUNTRIES IN 1995 – 2004

## CZECH REPUBLIC

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After a period of transformational decline in the early 1990s, the Czech economy reached the 1990 level of output in 1996 (with GDP at 99.4% of the previous level). The growing imbalances and subsequent economic restriction then led to a decline in economic performance from 1997. Growing foreign demand largely initiated the reversal of this development, while domestic demand increased gradually and by the second half of 2000 represented the major factor of growth. The upturn in domestic demand was brought about mainly by the resurgence of investment activity, related to the massive inflow of foreign direct investment and to the increase in household consumption. On the other hand, the development of foreign trade was affected by the worsened external environment and caused economic growth in 2001 to slow down year-on-year. On the basis of GDP development analysed using the expenditure method, it may be said that:

- during the recession (1997 – 1999) domestic demand was dampened by the effect of restrictive measures adopted under an economic policy that sought to restore the macroeconomic balance. In 1998, when the economy declined by 1.2% in comparison with 1997, domestic demand made a negative contribution of 2.3 percentage points, while the development of foreign trade provided a partial counterbalance, adding 1.1 percentage points to growth;

- during the subsequent recovery (2000 – 2001), domestic demand grew in both investments and final household consumption, while the external sector hampered the higher growth dynamic. In 2001, domestic demand accounted for 6 percentage points of GDP growth, whereas foreign trade in goods and services reduced the total growth by 2.4 percentage points.

In 2002 the economy grew more slowly in comparison with the previous year, but the next year's growth was led to a large extent by domestic consumption and then, in 2004, there was the positive signal of growth being induced by the substantial contribution of investments. The relatively high growth in industry and exports is also continuing and helping to improve the trade balance. The absence of significant demand price pressures in 2004 and the improving trade balance bear witness to the fact that the economy has not yet reached the limit of its capacity. This may indicate that the past FDI inflow and corporate restructuring are now having positive effects. In its forecast of October 2004, the Czech National Bank (ČNB) said that the shortfall in output could be closed in 2005 and that this could translate into growth in demand inflation. A concurrent risk in this situation may be inflationary cost effects related to the price development of oil and other commodities and to the stepped growth in public

**Table 1 Selected macroeconomic indicators of the Czech Republic**

| Year | GDP in current prices (CZK bn) | GDP in fixed prices (CZK bn) | Rate of unemployment (%) as at 31.12 | Inflation – CPI as at 31.12 | Pace of growth GDP in fixed prices previous period = 100 | Average gross monthly wage of employees (CZK) | Index of the average gross monthly wage of employees (in %) |
|------|--------------------------------|------------------------------|--------------------------------------|-----------------------------|--|---|---|
| 1995 | 1 466.6                        | 1 466.6                      | 2.9                                  | 9.1                         | 100.0  | 8 307   | 118.6   |
| 1996 | 1 660.6                        | 1 527.6                      | 3.5                                  | 8.8                         | 104.2  | 9 825   | 118.3   |
| 1997 | 1 785.1                        | 1 516.5                      | 5.2                                  | 8.5                         | 99.3   | 10 802  | 109.9   |
| 1998 | 1 962.4                        | 1 499.1                      | 7.5                                  | 10.7                        | 98.9   | 11 801  | 109.2   |
| 1999 | 2 041.3                        | 1 517.2                      | 9.4                                  | 2.1                         | 101.2  | 12 797  | 108.4   |
| 2000 | 2 150.1                        | 1 576.2                      | 8.8                                  | 3.9                         | 103.9  | 13 614  | 106.4   |
| 2001 | 2 315.2                        | 1 617.8                      | 8.9                                  | 4.7                         | 102.6  | 14 793  | 108.7   |
| 2002 | 2 414.6                        | 1 641.9                      | 9.8                                  | 1.8                         | 101.5  | 15 866  | 107.3   |
| 2003 | 2 550.7                        | 1 703.1                      | 10.3                                 | 0.1                         | 103.7  | 16 920  | 106.8   |
| 2004 | 2 751.1                        | 1 771.6                      | 10.3                                 | 2.8                         | 104.0  | 18 035  | 106.8   |

Source: ČNB, Czech Statistical Office (ČSÚ)



sector wages, which could also affect wage development in the business sector. Public finance development also poses a continuing risk to macroeconomic development. The progress of selected macroeconomic indicators of the Czech Republic is shown in Table 1.

**The unemployment rate** fluctuated around the level of 3% up to the end of 1996, the low level being influenced not only by positive factors (development of the private sector and services) but also the inconsistent restructuring of the economy. Unemployment grew steadily in the next period, until in 2000-2001 its level was reduced or contained due to the effect of economic recovery, the inflow of foreign investment and an active employment policy.

Currently fluctuating above 10%, the unemployment rate has a structural and to some extent also a seasonal character and it is marked by substantial regional disparities. It may be described as one of the problematic indicators of the Czech economy. The ČNB forecasts a reduction in the unemployment rate in 2005, mainly on the basis of the good internal and external conditions for the continuing boom.

**Inflation** headed towards single digits after the transformation measures (notably, in 1993, the effect of introducing VAT). This development was interrupted in stages by the intensity of the deregulation of prices and administrative measures (in the area of taxes). The record-low level of inflation reported in 2003 (0.1%) was a specific feature of the economic development. Consumer prices oscillated around the zero level and for six months even had a deflationary trend. Analysis of the causes and contexts of the development showed that the gradual response to excessive appreciation of the Czech koruna in previous years may be considered one of the main causes of the atypical development. The decline in both import prices and industrial producer prices "dragged" the whole range of goods and services in the retail market into the year-on-year fall. Regulated prices had a significant effect on deflationary pressures with electricity prices falling by 5%. A major factor in the low-inflation development was the stagnation, or underperformance, of the world economy as well as the fluctuations in food prices and the excess of supply over demand, especially in the meat market. The stagnation of consumer prices encouraged people to consume more and consumption gradually accelerated over the course of 2003. On the other hand, 18 months of continuously declining industrial producer prices slowed down investment demand since it curbed the profitability of a substantial number of investment projects. As a consequence of the price development in the Czech Republic, a negative inflationary differential was generated as compared with the development in the EU, which reached 2.2 percentage points over the course of 2003 and set back the convergence of price levels. The expected growth in consumer prices came about in 2004, influenced by changes in regulated prices and VAT. The increase in oil prices was reflected in the higher growth in fuel prices. Due to a good harvest, agricultural producer prices

and food prices had an anti-inflationary effect. According to the ČNB forecast, this trend will continue also in 2005.

Since the Czech economy is an open economy, external imbalances have a marked effect on its performance. The alternatively more substantial and less substantial balance of payments current account deficits are all but eliminated by the inflow of funds to the financial account. The current account deficit has reported a declining trend since 2003. Notably in 2004, exports came close to the highest ever level. The high growth was posted not only by exports of goods but also by income from services. The acceleration in exports was stimulated mainly by economic recovery in EU countries, above all Germany, and it was also favoured by the delayed effect of real exchange rate liberalisation. The ČNB expects that the trend of growth in real exports stimulated by foreign demand will also continue in 2005. Imports remain higher than exports, however, as a result of investments that are highly import-demanding.

Growth in labour productivity lagged behind growth in real wages until 1997 (except in 1991). In the next period both indicators converged and the desired lead was reached in 1998 (due to the effect of saving measures) and in 2000 (due to the improved economic performance). The positive development came to a halt in 2001 when the national economic labour productivity (3%) slightly trailed the growth in real wages (by 0.2 of a percentage point). The unfavourable relation between faster growth in real wages and slower growth in labour productivity became more pronounced in 2002. Real wages also grew faster than labour productivity in 2002 (albeit at a moderate pace), and the ČNB in 2005 expects real wage growth in the non-business sector to be a possible source of domestic uncertainty in economic development. This risk could in the long-term lead to demand and wage-cost inflationary pressures.

With regard to the functionality of the financial sector, the the ČNB noted in 2004 that its stability was consolidating and increasing. Contributing to this was the favourable development of the economic environment and the improvement in internal management mechanisms; the sector also became more resilient to external shocks. Notwithstanding the problems in economic development that have been mentioned, the 2005 economic boom should continue and have a positive effect on the sector and its current credit exposure. The ongoing boom should at the same time create the funds with which to cover future risks that may appear in a recession.

### **Selected insurance industry indicators Written premium of insurers that are members of the Czech Association of Insurers**

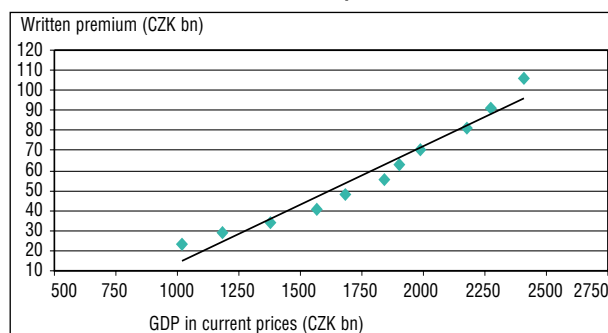
The development of written premium among insurers that are members of the Czech Association of Insurers (ČAP) and the forecast for their development in 2005 is shown in Table 2 and in Chart 1.

**Table 2 Written premiums of ČAP insurers and insurance penetration in the Czech Republic**

| Year  | Written premium of ČAP insurers (CZK bn) |       |          | Written premium Poistenosť per capita (CZK) |       |          | (in %) |
|-------|--|-------|----------|---|-------|----------|--------|
|       | Total                                    | Life  | Non-life | Total                                       | Life  | Non-life |        |
| 1995  | 33.54                                    | 9.23  | 24.32    | 3 247                                       | 893   | 2 354    | 2.3    |
| 1996  | 39.99                                    | 10.99 | 29.00    | 3 877                                       | 1 065 | 2 812    | 2.5    |
| 1997  | 47.62                                    | 12.69 | 34.93    | 4 621                                       | 1 232 | 3 390    | 2.7    |
| 1998  | 54.80                                    | 14.97 | 39.83    | 5 323                                       | 1 454 | 3 869    | 2.9    |
| 1999  | 62.47                                    | 19.92 | 42.55    | 6 075                                       | 1 937 | 4 138    | 3.1    |
| 2000  | 69.28                                    | 22.70 | 46.51    | 6 745                                       | 2 210 | 4 528    | 3.3    |
| 2001  | 79.20                                    | 28.28 | 50.92    | 7 746                                       | 2 766 | 4 980    | 3.5    |
| 2002  | 88.47                                    | 34.16 | 54.31    | 8 147                                       | 2 737 | 5 407    | 3.8    |
| 2003  | 105.90                                   | 41.13 | 64.81    | 8 896                                       | 3 058 | 5 836    | 4.2    |
| 2004  | 112.60                                   | 44.23 | 68.37    | 9 659                                       | 3 384 | 6 271    | 4.1    |
| *2005 | 117.96                                   | 46.36 | 71.60    | 10 381                                      | 3 677 | 6 699    | x      |

Source: www.cap.cz, www.mf.cz, own calculations

\* linear trend forecast

**Chart 1 Correlation between written premium and GDP**


Source: ČAP annual reports 1993-2004 and own calculations

The written premium of ČAP insurers grew continually between 1995 and 2004, from a combined total of CZK 33.54 bn in 1995 to CZK 112.6 bn in 2004. The total growth for the monitored period is 335.72 percentage points. Insurance penetration in the monitored period grew in all years except 2004, when it fell slightly by 0.1 of a percentage point.

One of the most important macroeconomic indicators which to a great extent influences the amount of written premium is GDP (GDP figures for the years 1995 to 2004, in both current prices and fixed prices, are shown in Table 1). Using a correlation analysis, we have ascertained a correlation between GDP and written premium. The statistically significant coefficient  $b_1$  indicates the increment in written premium given a rise in GDP by CZK 1 bn. The model match is also demonstrated by the high determination coefficient – 95.11%,

**Table 3 Herfindahl-Hirschman Index for the insurance industry**

| Year | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | Index <sub>04/95</sub> |
|------|------|------|------|------|------|------|------|------|------|------|------------------------|
| HHI  | 4995 | 4322 | 3783 | 3739 | 3064 | 1973 | 2043 | 1967 | 1848 | 1961 | 39,26                  |

Source: ČAP annual reports 1996-2004 and own calculations

**Table 4 Insurance benefit expenses**

| Indicator (CZK bn) | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | Index <sub>2004/95</sub> |
|--------------------|------|------|------|------|------|------|------|------|------|------|--------------------------|
| Total              | 18,7 | 21,5 | 32,7 | 34,6 | 35,3 | 33,9 | 39   | 58,9 | 40,2 | 58,2 | 310,62                   |
| Life insurance     | 6,46 | 6,99 | 8,16 | 10,8 | 9,79 | 10,4 | 12,8 | 12,4 | 15,4 | 23,1 | 357,89                   |
| Non-life insurance | 12,3 | 14,5 | 24,5 | 23,8 | 25,5 | 23,5 | 26,2 | 46,5 | 24,8 | 35,1 | 285,74                   |

Source: ČAP annual reports 1995 – 2004

meaning that a mere 4.89% of written premium cannot be related to changes in GDP.

### Czech insurance market concentration

We have ascertained the concentration in the Czech insurance market by means of the Herfindahl-Hirschman Index (HHI), which is calculated on the following basis:

$$HHI = \sum_{i=1}^n x_i^2,$$

where  $n$  is the number of all the enterprises in an industry and  $x_i$  is the share of the  $i$ -th enterprise in total turnover of the industry (we are monitoring insurance

market concentration for life and non-life insurance combined: for example, the commercial insurer česká poisťovňa, a. s. had a market share of 36.39% in 2004, ahead of Kooperativa, a. s., with a share of 21.47%, and Allianz, a. s., with 7.95%).

The HHI's value for 1995 reached that of a highly concentrated industry, in other words one for which the value is higher than 1,800. Between 1996 and 2000 the HHI value fell, and between 2001 and 2004 it alternated between moderate growth and moderate decline. In 2004 the HHI reached 1,961, only 161 points more than the upper limit for medium industry concentration (1,800).

The number of insurers operating in the Czech insur-

ance market grew from 35 in 1995 to 40 in 2004. As the number of insurers increased, so did the number and quality of the insurance products on offer. By 2004 the insurers were offering customers insurance protection in the form of more than 200 products that covered the main risks faced by individuals and business entities. It is apparent both from the development in the number of insurers and from their shifting market share that the HHI value may continue to fall in the next period and reach the desired level of an insurance market with medium concentration.

## Insurance benefits and loss of burden

Insurance benefit expenses in absolute terms for the period under review are shown in Table 4 and the burden of losses (ratio of written premiums to insurance benefits) is shown in Table 5.

**Table 5 Loss of burden**

| Burden of losses (%) | 1995 | 1997 | 1999 | 2001 | 2003 | Index <sub>03/95</sub> |
|----------------------|------|------|------|------|------|------------------------|
| Life insurance       | 67,2 | 65,5 | 54,4 | 45,3 | 37,5 | 55,80                  |
| Non-life insurance   | 50,8 | 57,6 | 51,3 | 40,6 | 38,2 | 75,20                  |

Source: ČAP annual reports 1995 – 2003

## Technical reserves and investment activity of insurers

The volume of technical reserve funds held by ČAP insurers grew throughout the period under review. In life insurance, the volume of technical reserves in 2004 stood at CZK 132.25 bn, up by 224.84 percentage points in comparison with 1995. The TR volume in non-life insurance in 2004 amounted to CZK 59.32 bn, a rise of 215.71 percentage points compared to 1995.

Commercial insurers are increasing the value of technical reserves in compliance with the insurance legislation for the domestic and foreign financial market. The appreciation rate is contributing to the increase in competitiveness between individual insurers. The importance of the insurers' business activities is also reflected in the evaluations made by ratings agencies. The investment activity of insurers is among the indicators monitored by Standard & Poor's in assessing the financial situation; it should not be

**Table 6 Technical reserves of ČAP insurers**

| Year                   | Total  | Life   |         | Non-life |         |
|------------------------|--------|--------|---------|----------|---------|
|                        |        | CZK bn | Share % | CZK bn   | Share % |
| 1996                   | 85.20  | 57.70  | 68      | 27.50    | 32      |
| 1997                   | 96.90  | 63.80  | 66      | 33.10    | 34      |
| 1998                   | 98.30  | 67.90  | 69      | 30.40    | 31      |
| 1999                   | 109.70 | 76.70  | 70      | 33.00    | 30      |
| 2000                   | 117.10 | 86.10  | 74      | 31.00    | 26      |
| 2001                   | 135.00 | 97.80  | 72      | 37.20    | 28      |
| 2002                   | 157.50 | 110.90 | 70      | 46.60    | 30      |
| 2003                   | 176.30 | 124.30 | 70      | 52.00    | 30      |
| 2004                   | 191.57 | 132.25 | 69      | 59.32    | 31      |
| Index <sub>04/95</sub> | 224.84 | 229.20 | x       | 215.71   | x       |

Source: www.cap.cz and own calculations

**Table 7 Investment activity of ČAP insurers**

| Indicator     | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | Index <sub>04/97</sub> |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|------------------------|
| *FI (CZK bn)  | 93,40  | 108,90 | 124,70 | 141,62 | 165,50 | 194,37 | 215,72 | 249,73 | 267,37                 |
| **TR (CZK bn) | 85,20  | 96,90  | 98,30  | 109,70 | 135,00 | 157,50 | 176,30 | 191,57 | 224,85                 |
| FI/TR100 (%)  | 109,62 | 112,38 | 126,86 | 129,09 | 122,59 | 123,41 | 122,36 | 130,36 | 118,92                 |

Source: www.cap.cz and own calculations \*Financial investments (FI), \*\*Technical reserves (TR)

less than 100% since insurers have a legal obligation to invest their technical reserve funds in order to ensure that they are able to meet their liabilities at all times and in the required amount. Given that the funds placed in technical reserves are external funds, the state regulates and controls the investment portfolios of insurers. This regulation is grounded in EU Directive 92/96/EEC, which lays down a framework for investments, and in the national legislation of individual countries, which stipulates the possible percentage share. Table 7 shows the values of the investment activity indicator (IA – ratio of investments to technical reserves) for the Czech Republic between 1997 and 2004.

The investment activity indicator for insurers had a growing trend during the period 1997-2000. Between 2001 and 2003 the trend was downward, largely due to the transformation of statutory third-party motor insurance into compulsory contractual insurance, but also by the necessary restructuring of the investment portfolio. Investment returned to growth in 2004 – up to the value of 130.36. This positive result was achieved as a result of the professional experience gained from investing funds and also the legislative changes which created the conditions for investment, in both the Czech and foreign financial market.

The Czech insurance sector was since the mid-1990s had been preparing for accession to the European Union. This process reached its legislative culmination with the adoption and amendment of a series of key insurance laws (the Act on Insurance Contracts, the Act on Insurance, the Act on Intermediaries and Independent Liquidators of Insurance Events, the Act on Compulsory Contractual Motor Insurance, among others).

Economically, the Czech insurance sector is one of the most advanced among those countries which joined the EU in May 2004, but still its figures for insurance penetration do not compare with those typical in advanced countries. The trends which in these countries are indicated in development are appearing later and more slowly in the development of the Czech insurance market. The main factors that in previous years influenced the development of the insurance sector in the Czech Republic include: economic growth, capital market development, the catastrophic floods between 1997 and 2002, government assistance in the area of savings products, progress in the area of social insurance, and traditional approaches to risk coverage among individuals, in particular to the coverage of needs in old age.

These factors are reflected in the structure of insurance products, in the structure of the insurers on the insurance market, as well as in the growth of the insurance market. Although the Czech insurance sector has reported relatively

fast growth in terms of written premium, the pace of this growth has fallen in previous years due to some of the above mentioned factors.