

# The Measurement of External Debt and External Reserves – The Case of the Czech Republic

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The Czech National Bank (CNB) is responsible in the Czech Republic for measuring external debt and external reserves and for compiling the balance of payments and the international investment position. The CNB is allowed to demand data on flows and on assets and liabilities for this purpose.

The information on external debt is available in three variables. The first is the international investment position, which includes all external liabilities. The second, external debt, represents liabilities excluding equity capital and equity securities. All this information is published quarterly. External debt is broken down as follows: by convertible and non-convertible currencies, by short-term and long-term debt according to original maturity, and by debtor and creditor sectors. Data are collected from the central bank, banks, brokers, government and non-financial institutions. The third variable is debt service. This covers liabilities longer than one year broken down by debtor and creditor sectors and by year. The data are collected from all banks and from selected non-financial institutions.

The data on external reserves are published monthly. Since April 2000 they have been published in accordance with the Special Data Dissemination Standards. The main sources are the balance sheet and central bank dealing.

The CNB uses the data on external debt and reserves for analytical purposes, especially in relative terms. The external debt and reserves figures are very important indicators of “external vulnerability”. These indicators are broken down into four components:

## 1. Current account indicators:

- a) *the current account deficit as a percentage of GDP,*
- b) *the trade deficit as a percentage of GDP,*
- c) *current account deficit financing by non-debt inflow (foreign direct investment).*

The trend and sensitive level are monitored. The sensitive level is considered to be 5% of GDP in the case of the current account and 10% in the case of the trade deficit. If the country is experiencing a current account deficit, full offsetting financing of the deficit by non-debt inflow is viewed as safe. In the Czech case, all indicators actually exceeded their sensitive levels during the period of greatest external imbalance and subsequent monetary turbulence in 1997. Since then, all three indicators have remained on the safe side of their sensitive levels, evidencing an improvement in the current account.

## 2. Debt indicators

- a) *total debt as a percentage of GDP/exports*

The trend is monitored. For total debt, 40% of GDP is considered the sensitive level. Prior to 1998, the debt indicators had been increasing continuously, reflecting the role of foreign funds during the transition period and the increasing external imbalance. The ratio to both GDP and exports peaked above the sensitive level in 1997. Since 1998, the ratio to GDP has stabilised close to the sensitive level with a very moderate declining tendency. The ratio to exports has fallen rapidly owing to an increasing volume of exports.

- b) *debt service as a percentage of GDP/exports*

The trend is monitored. The development of the debt service ratios is very similar to that for the total debt indicators. The small fluctuation in the slope of the curves reflects the repayment schedule. A more concentrated volume of repayments represents an increase in the debt service ratio and a decline in the debt ratio in the period in question.

*c) international investment position*

The IIP shows more about the nation's liabilities than do the debt indicators. The IIP underwent significant changes during the transition period in the Czech Republic. A dominant factor has been inflow of foreign direct investment, which worsens the position. Nevertheless, foreign investors have made the most effective contribution to the restructuring of the supply side of the Czech economy.

### **3. Liquidity indicators**

*a) coverage of highly mobile debt by international reserves*

Highly mobile debt represents debt service in the relevant year and short-term debt. The trend for this indicator is monitored. The international reserves currently more or less cover this debt in the Czech Republic. The ratio has been stable in recent years. This indicator did not increase so rapidly before the monetary turbulence. This might be explained by the exchange rate regime: under the fixed regime the central bank purchased foreign exchange during the period of strong capital inflow and created larger reserves.

*b) external reserves relative to three months' worth of imports of goods and services*

Three months' worth of imports of goods and services is considered the sensitive level. This period is usually necessary for arranging additional reserves. In the Czech Republic, the reserves have stood at four months' worth of imports over the last five years.

### **4. Other indicators**

*a) ratio of external reserves to money supply*

The trend is monitored. External reserves represent one third of the money supply, with moderate fluctuations in recent years. This level was reached during the fixed exchange rate period.

*b) nominal and real effective exchange rate*

The trends are monitored. The effective exchange rates are calculated vis-à-vis 22 countries representing almost 90% of foreign trade. These variables indicate the tightness of the competitive environment for domestic undertakings compared with that abroad. There is a stable trend in the NEER and an appreciating trend in the REER. The underlying reason from the medium-term point of view has been the positive inflation differential. Nevertheless, over the past three years the changes in the REER have been due more to the NEER, since the differential is very modest.

Practical application of the indicators of external vulnerability, including debt and reserves, gives reasonable outcomes:

- all indicators worsened before the monetary turbulence, and those with a sensitive level exceeded that level;
- the reserves-related indicators reached their present level at the end of fixed exchange rate regime and since then have remained more or less steady;
- markets are more tolerant of a high indicator level – even if it is above the critical level – than they are of a deteriorating trend.

## **RESUME**

L'allocution traite la mesure d'indicateurs extérieurs notamment pour les objectifs analytiques dans la Banque Nationale Tchèque. La plupart d'eux sont suivis dans l'expression relative. La dette extérieure et les réserves y jouent un rôle important. Lors de l'analyse le trend est suivi et quelques indicateurs sont comparés avec de niveaux sensibles de telle façon comment les marchés financiers les perçoivent. L'évolution des indicateurs mentionnés en République tchèque caractérise bien

l' évolution réelle. Nombre de cas correspondent aussi avec une évolution spécifique dans la période de transformation.