

## **Czech banking sector stress test results (November 2010)**

### **Summary**

The results of stress tests of the banking sector in the Czech Republic that were performed using data available as of 2010 Q3 still confirm a sufficient stability of the banking sector against the potential adverse shocks. The capitalisation of the entire sector would remain above the regulatory minimum of 8% even in an extreme and very improbable stress scenario combining an adverse development in the domestic and external economy and a renewed uncertainty on financial markets brought about by government debt financing problems.

### **1. Introduction**

The Czech National Bank regularly conducts stress tests to assess the impacts of highly adverse and implausible future economic scenarios on the resilience of the domestic banking sector. This document presents the results of the November stress tests, which were conducted on the data as of 30 September 2010 and focus on the coming two years. In the assessment of resilience, the impact of future economic developments – represented by one baseline scenario and one stress scenario – on selected indicators of the banking sector's soundness was tested.

### **2. Macroeconomic scenarios**

*The baseline scenario* corresponds to the November CNB's macroeconomic forecast published in Inflation Report IV/2010. The scenario assumes gradual growth of the economy, which compared to the August forecast is slightly weakened due to government austerity measures. Inflation at two-year horizon remains close to the 2% inflation target, the exchange rate is modestly appreciating and short-term interest rates are in the following period stable and have been gradually growing since 2012 Q1.

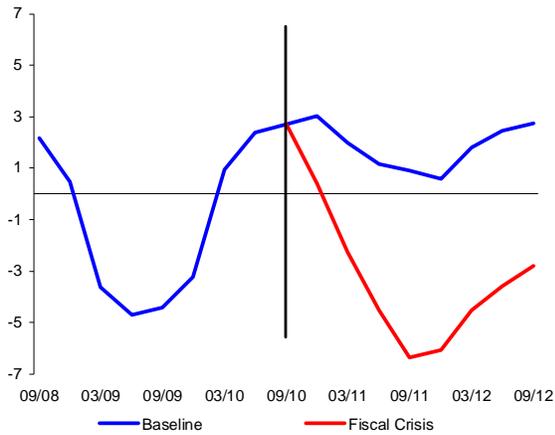
The *Fiscal Crisis* stress scenario is based on markedly adverse and highly implausible developments in economic activity in the Czech Republic, which is due to a decline in external demand owing to renewed uncertainty about financing euro area countries' government debts. The scenario, which exposes the banking sector to an extreme stress suggests, that concerns about the fiscal sustainability of the public finances would be at the same time transferred to the Czech Republic: the exchange rate would depreciate and the government would have problems to sale new bonds on the primary market under the acceptable conditions. The nervousness would be felt also on the secondary market, which would experience a sharp rise in long-term yields and a decline in the value of government bonds in the Czech Republic. Inflationary pressures will lead to monetary policy response and a subsequent increase in short-term interest rates. This scenario can be considered very stressed and highly unlikely.

Charts 1–4 below illustrate the evolution of the key macroeconomic variables of the stress scenario compared to the baseline scenario.

**Chart 1**

**Alternative scenarios: real GDP growth**

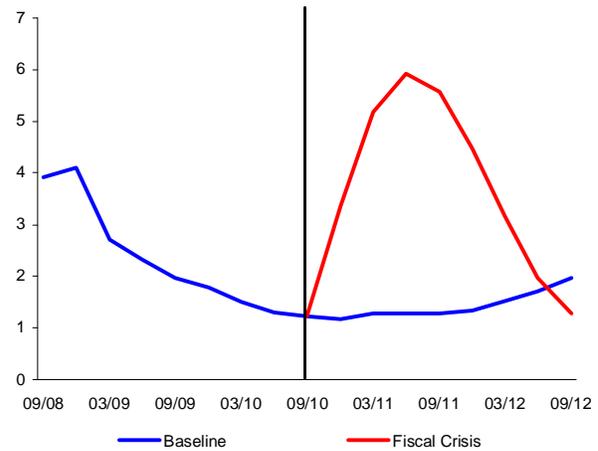
(in %)



**Chart 2**

**Alternative scenarios: 3M PRIBOR**

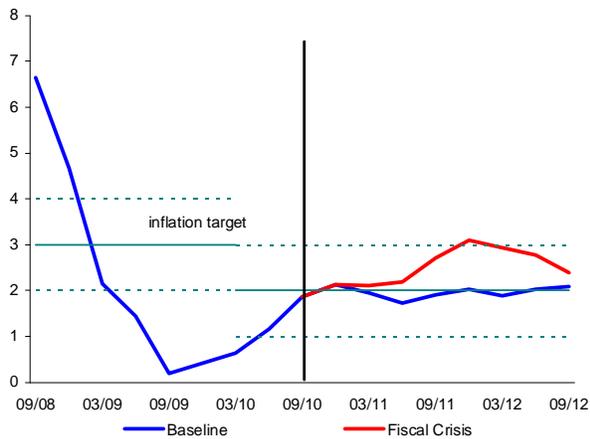
(in %)



**Chart 3**

**Alternative scenarios: inflation**

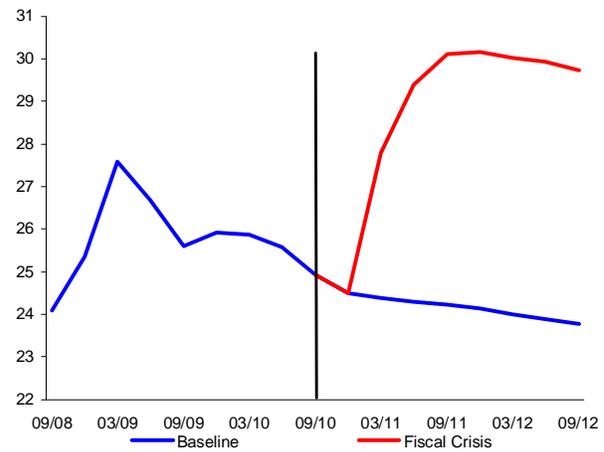
(in %)



**Chart 4**

**Alternative scenarios: exchange rate**

(CZK/EUR)



**3. The impact of the macroeconomic scenarios on the banking sector**

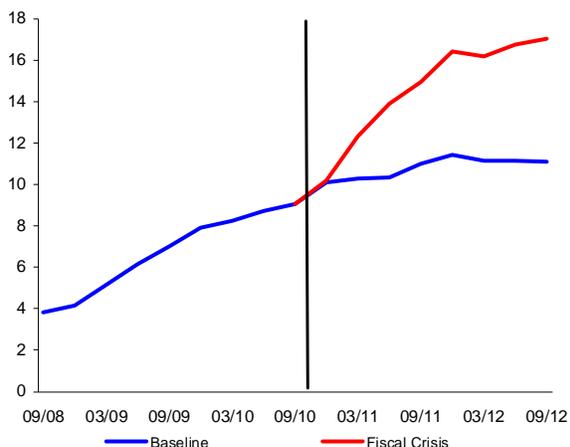
The ratio of non-performing loans to total loans in the non-financial corporations sector continues to grow even in the baseline scenario, nearing 11.4 % in 2011 Q4. For the household sector, the baseline scenario sees only a negligible increase in the ratio of non-performing loans in the subsequent year, which will replace a gradual decline to the value close to 5.5%.

The stress scenario would be reflected in a higher increase in credit risk and the ratio of non-performing loans is thus moving at strikingly higher levels (Charts 5, 6). In 2011, impairments on loans would amount almost to 4% of loan portfolio, i.e. more than a double of the value attained in 2009 (1.9%). In parallel, the banking sector would be affected by relatively high market losses owing to a decline in the prices of Czech government bond holdings. At the same time, a strongly adverse scenario would lead to some decline in loan portfolios due to both low demand for loans and limited supply within the framework of the tightening loan standards.

**Chart 5**

**Non-performing loans: non-financial corporations**

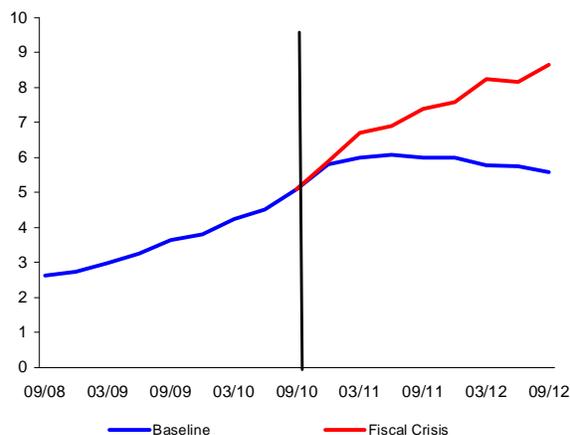
(in %)



**Chart 6**

**Non-performing loans: households**

(in %)

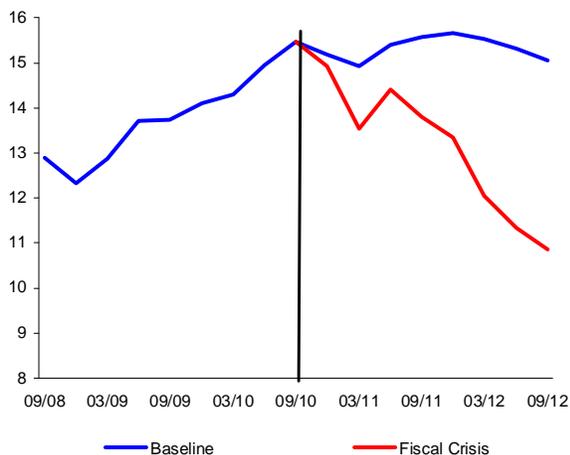


While the baseline scenario assumes that operating profit generation in the period ahead will remain roughly the same as last year, the *Fiscal crisis* scenario sees their significant fall of 30–40%. In the stress scenario some banks thus get into an overall loss-making situation, which significantly reduces the regulatory capital value.

**Chart 7**

**Capital adequacy ratio**

(in %)



Despite the relatively high credit and market losses and weakened operating profit in both macro-economic scenarios, the banking sector as a whole remains stable and its aggregate capital adequacy stays constantly above the regulatory minimum of 8% (see Chart 7). This is achieved even despite the conservative settings of many of the assumptions of the individual scenarios which suggest rather a more pessimistic development. One of the reasons for the banking sector stability is still its high capital adequacy, which compared to the tests of August 2010 (on data as of 30 June 2010) continued to grow modestly amounting to almost 15.5% at end-September.

In the extremely adverse *Fiscal Crisis* stress scenario, some banks are getting into a situation of insufficient capital adequacy. To make up their capital adequacy to the regulatory minimum of 8%, all banks having their registered offices in the Czech

Republic (i.e. excluding foreign bank branches) would have to increase their regulatory capital by almost CZK 10.5 billion (i.e. around 0.3 % of GDP). As regards the size of the sector, this is not a significant value, which could threaten the banking sector stability.

Czech National Bank

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This document has been placed on the CNB website

[http://www.cnb.cz/en/financial\\_stability/stress\\_testing/index.html](http://www.cnb.cz/en/financial_stability/stress_testing/index.html)