

CZECH BANKING SECTOR STRESS TESTS  
NOVEMBER

Financial Stability Department

2011

## CZECH BANKING SECTOR STRESS TESTS (NOVEMBER 2011)

### SUMMARY

The results of stress tests of the Czech banking sector performed using data available as of 2011 Q3 confirm that the banking sector is sufficiently stable with regard to potential adverse shocks. The capitalisation of the entire sector would remain above the regulatory minimum of 8% even in a significant stress scenario combining negative developments in the domestic and external economy and renewed uncertainty on financial markets caused by an escalation of the fiscal crisis in the indebted euro area countries.

### 1. INTRODUCTION

The Czech National Bank regularly conducts stress tests to assess the impacts of highly adverse and implausible future economic scenarios on the domestic banking sector. This document presents the results of the November stress tests, which were conducted on the data as of 30 September 2011 and focus on the coming two years. In the assessment of the sector's 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. The economic developments in the stress scenario reflect the impact of a potential escalation of the euro area debt crisis, which in turn affects the performance of the Czech economy and its financial sector.

### 2. MACROECONOMIC SCENARIOS

The **Baseline Scenario** corresponds to the CNB's November macroeconomic forecast published in Inflation Report IV/2011. This scenario assumes a sharper slowdown of the economy at the start of next year, which will be replaced by a recovery in 2012 H2. Headline inflation approaches 3% in 2012 owing to a VAT increase, the exchange rate appreciates from the start of next year onwards, and short-term interest rates fall slightly and then remain stable until late 2012/early 2013, when they return to gradual growth.

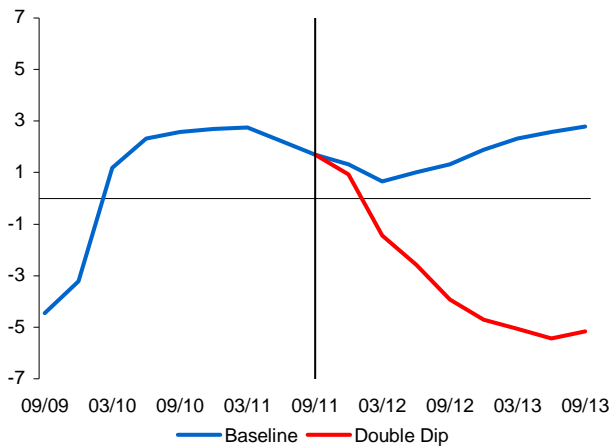
The **Double Dip** stress scenario is based on very adverse economic developments in the EU. A sharp decline in economic activity in the Czech Republic's main trading partner countries and tougher fiscal consolidation would be reflected in a marked decrease in economic activity and growing unemployment in the Czech Republic as well. Increased uncertainty regarding the domestic economy going forward would be reflected in a loss of investor confidence and a rise in risk aversion. This would give rise to a marked depreciation of the exchange rate. As in the previous round of testing, this scenario assumes impairment of the Czech banking sector's exposures vis-à-vis five indebted EU countries<sup>1</sup> and their revaluation in banks' balance sheets to zero. This scenario can thus be considered highly stressed.

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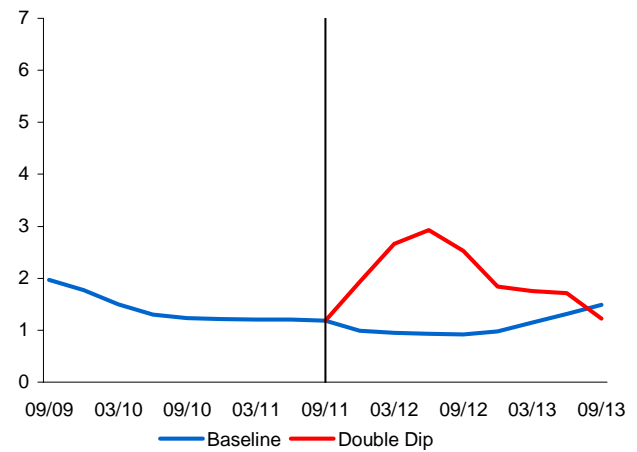
<sup>1</sup> i.e. exposures to the governments and private institutions of Greece, Ireland, Italy, Portugal and Spain.

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

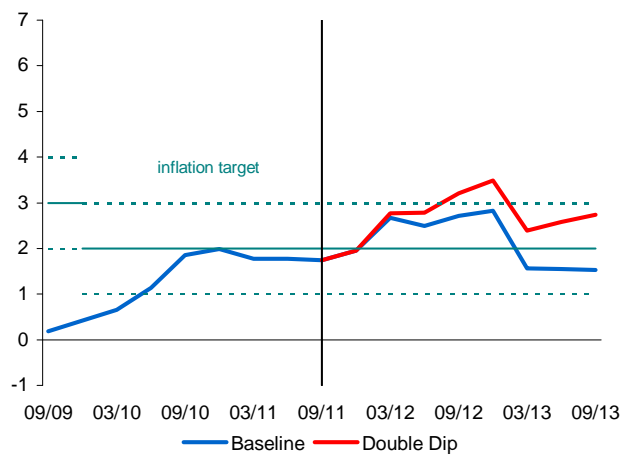
**Chart 1**  
Alternative scenarios: real GDP growth  
(in %)



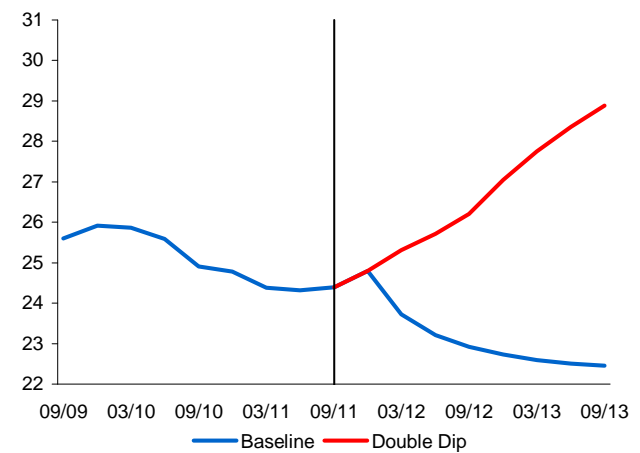
**Chart 2**  
Alternative scenarios: 3M PRIBOR  
(in %)



**Chart 3**  
Alternative scenarios: inflation  
(in %)



**Chart 4**  
Alternative scenarios: exchange rate  
(CZK/EUR)

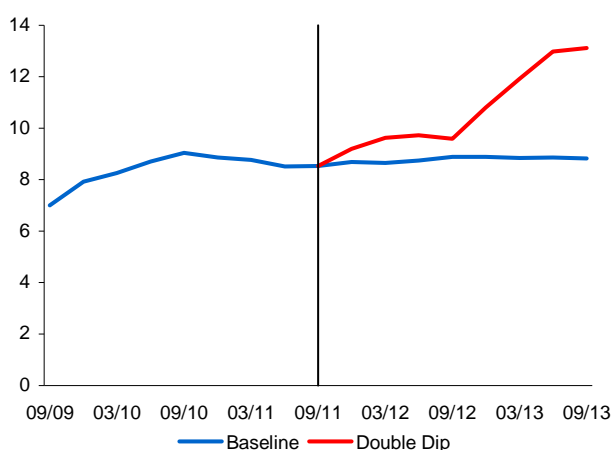


### 3. THE IMPACT OF THE MACROECONOMIC SCENARIOS ON THE BANKING SECTOR

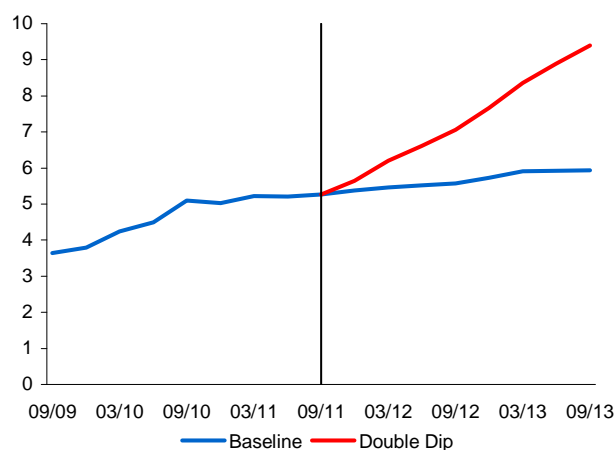
Credit risk is the dominant risk in the Czech banking sector. It can be quantified using the ratio of non-performing loans (NPLs) to total loans. In the *Baseline Scenario*, this ratio is rising slightly in the non-financial corporations sector at the two-year horizon, reaching 8.9%. Similarly, the NPL ratio in the household sector edges up to around 5.9%. The slight increase in the NPL ratios for both sectors compared to the August 2011 stress test is due to the worse-than-expected economic outlook at the prediction horizon.

The *Double Dip* stress scenario would be reflected in a larger increase in credit risk and the NPL ratio in this scenario would be much higher than in the *Baseline Scenario* (see Charts 5 and 6). Loan impairment losses would reach almost 2.7% of the total loan portfolio (CZK 55 billion) in 2012. This would represent almost two and a half times the figure recorded in 2010 and the estimate for 2011 (roughly 1.1% in both cases). In parallel, the banking sector would be hit by relatively sizeable market losses in this scenario due to falling prices of government bond holdings. In this context, the test assumes revaluation of all claims vis-à-vis the five indebted EU countries to zero. Although this additional assumption of 100% impairment of exposures vis-à-vis these countries is extremely stressed, the total exposure of the Czech banking sector to these countries (CZK 24.4 billion as at 30 September 2011, with government bonds totalling CZK 10 billion) is not significant enough for 100% impairment to cause the banking sector any major difficulties.

**Chart 5**  
Non-performing loans: non-financial corporations  
(in %)

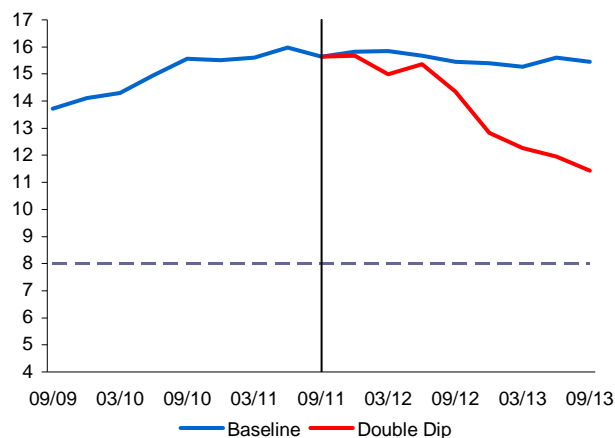


**Chart 6**  
Non-performing loans: households  
(in %)



Banks' operating profit is the first line of defence against credit and market losses. While the *Baseline Scenario* assumes slight year-on-year declines in operating profit of about 5% owing to rising competition on the deposit market, the stress scenario assumes a sharp drop in operating profit of 20–35% compared to the results expected for 2011. In the stress scenario, therefore, many banks get into a loss-making situation amid a concurrent rise in their risk costs (credit and market losses), which reduces their regulatory capital.

**Chart 7**  
**Capital adequacy ratio**  
 (in %)



Despite the relatively high credit and market losses and weaker operating profit, the banking sector as a whole remains stable in both scenarios and its aggregate capital adequacy ratio not only stays above the regulatory minimum of 8%, but does not even fall below 11% (see Chart 7). This is a sound basis for maintaining sufficient resilience to losses that may potentially occur beyond the two-year horizon of the test. This is achieved despite the conservative settings of many of the assumptions of the individual scenarios, which assume very unfavourable developments. The banking sector's stability continues to be based on its high capital adequacy ratio, which stood at 15.7% at the end of September 2011. However, a few banks

would get into a situation of insufficient capital adequacy in the stress scenario. To make up their capital adequacy to the regulatory minimum of 8%, banks having their registered offices in the Czech Republic (i.e. excluding foreign bank branches) would together have to increase their regulatory capital by CZK 13.6 billion as at the end of the test period. Relative to the size of the banking sector, this figure is not significant enough to jeopardise its stability.

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This document was published on 29 November 2011 and 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)