# CZECH BANKING SECTOR STRESS TESTS NOVEMBER

2012

Financial Stability Department

CZECH NATIONAL BANK

# CZECH BANKING SECTOR STRESS TESTS (NOVEMBER 2012)

## SUMMARY

The results of stress tests of the Czech banking sector performed using data available as of the end of 2012 Q3 still show that the banking sector is sufficiently resilient to potential adverse shocks. The capitalisation of the sector as a whole would remain above the regulatory minimum of 8% even in a significant stress scenario combining strong negative developments in the domestic and external economy caused by an escalation of the euro area debt crisis. The stress scenario amplified to include an assumption of an extraordinary dividend payout in 2013 H1 would cause the capital adequacy ratio to decrease slightly below 10%.

## 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 2012 and focus on the coming three 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 financial crisis, which in turn adversely affects the performance of the Czech economy and its financial sector.

## 2. MACROECONOMIC SCENARIOS

The ***Baseline Scenario*** is based on the CNB's November macroeconomic forecast published in Inflation Report IV/2012.[1] This scenario assumes a continuing modest economic recession in the next few quarters, which will be replaced by a recovery in 2013 H2. Headline inflation will fluctuate just above 2% in 2013 owing to a VAT increase and then fall below the CNB target in 2014. The exchange rate of the koruna against the euro will be broadly stable as from the start of 2013. Short-term interest rates will go down and not start rising until 2014.

The ***Europe in Recession*** stress scenario assumes a long-running and significantly deeper decline in economic activity over the entire three-year test horizon, due above all to adverse developments in the euro area and intensified fiscal consolidation in both the euro area and the Czech Republic. 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 cause the exchange rate to depreciate towards CZK 26 to the euro at the start of the horizon. At the same time, a short-term "freezing" of the interbank market and a surge in the PRIBOR is expected. As in the previous round of testing, this scenario assumes partial impairment of the Czech banking sector's exposures to European countries whose government debt exceeds 60% of GDP.

[1] The paths for the *Baseline Scenario* in the first two years are based on the CNB's official prediction. Beyond this horizon they are extended towards the assumed long-term equilibrium values.

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 %)

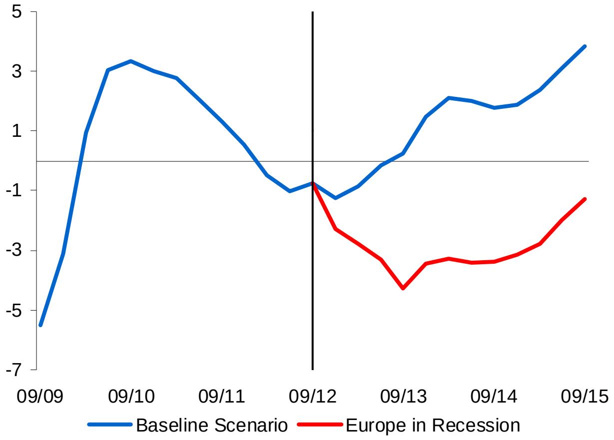



**Chart 2**
**Alternative scenarios: unemployment**
(in %)

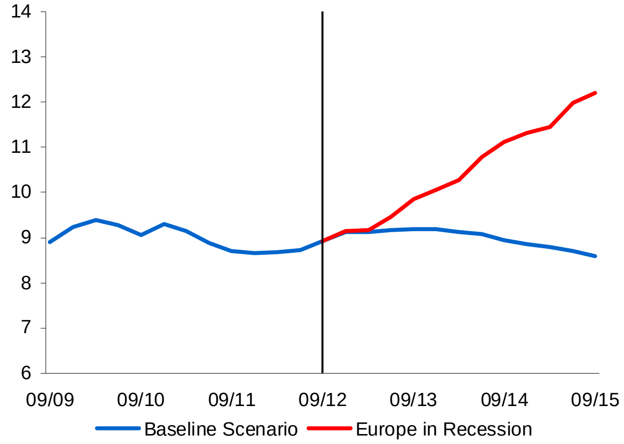



**Chart 3**
**Alternative scenarios: inflation**
(in %)

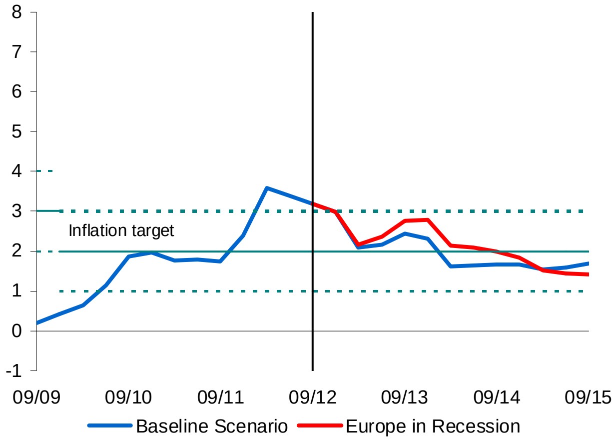
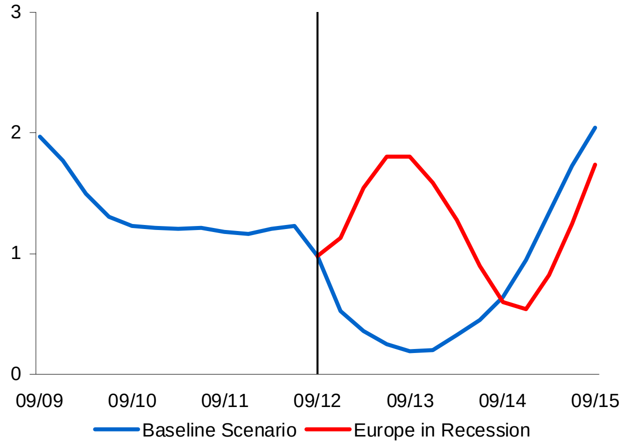



**Chart 4**
**Alternative scenarios: 3M PRIBOR**
(in %)



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

Credit risk is the most significant 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 stable in the non-financial corporations sector at the two-year horizon and declines gradually thereafter. A similar path is expected for the household sector.

In the *Europe in Recession* scenario, the combination of a drop in economic activity, an increase in unemployment and a decline in real wages with growth in loan interest rates would be reflected in a noticeable rise in credit risk and growth in the default rate for both non-financial corporations and households. In this scenario, the NPL ratio would be considerably higher than in the *Baseline Scenario*, rising to 12.6% for the non-financial corporations sector (see Chart 5) and to almost 10% for the household sector (see Chart 6). Loan impairment losses would reach almost 2.4% of the total loan portfolio (just under CZK 54 billion) in 2013.

Given the uncertainty regarding the solution to the euro area debt crisis, the test assumes that the exposures of Czech banks to EU countries whose government debt exceeds 60% of GDP would be impaired. These losses would total CZK 19.4 billion. The impairment applied to individual countries is derived from their government bond ratings and is described in more detail in the 2011/2012 Financial Stability Report (p. 85).

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

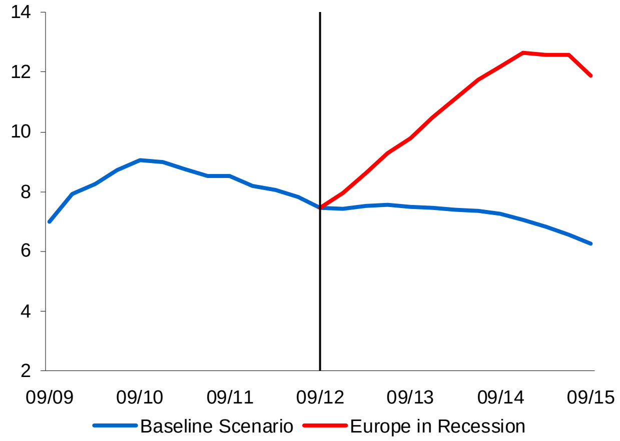
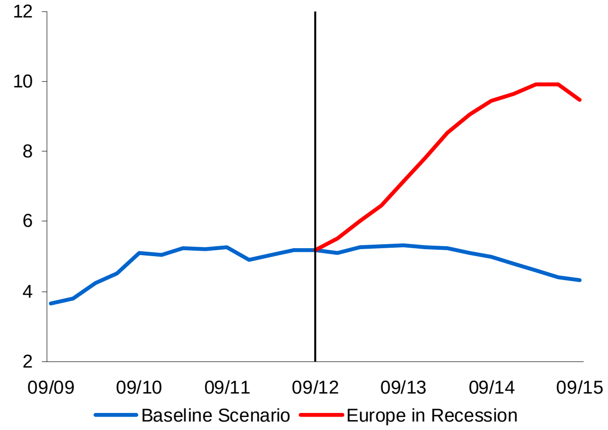
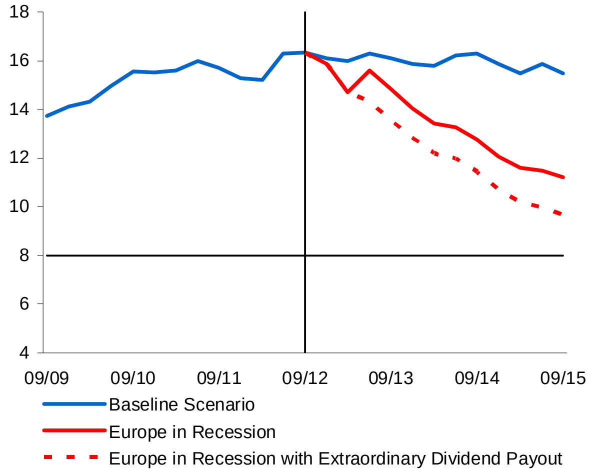



**Chart 6**
**Non-performing loans: households**
(in %)




Banks' operating profit is the first line of defence against credit and market losses. While the *Baseline Scenario* assumes a slight year-on-year fall in operating profit of about 5% due to falling interest rate margins as a result of rising competition, convergence to the zero interest rate bound and slower lending growth, the *Europe in Recession* stress scenario assumes a sharp cumulative drop in operating profit of over 30% at the scenario horizon compared to the results expected for 2012.

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




Despite the relatively high credit losses and weaker operating profit, the banking sector as a whole remains stable and its aggregate capital adequacy ratio approaches 11% in the stress scenario (see Chart 7). This is achieved despite the very conservative settings of many of the stress test assumptions.

The banking sector's stability continues to be based on its high capital adequacy ratio, which stood at 16.35% at the end of September 2012.

Several 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 18.7 billion (roughly 0.5% of GDP) as at the end of the test period. Relative to the size of the sector, this figure is not significant enough to jeopardise the stability of the banking sector.

The *Europe in Recession* adverse scenario was also extended to include additional stress stemming from a potential extraordinary dividend payout in the banking sector in 2013 H1. It is assumed that banks will decide to pay out dividends such that their capital adequacy ratio reaches 90% of the current level. This represents an aggregate payout of around CZK 47 billion. In this case, the impact of the *Europe in Recession* scenario is amplified and the sector's capital adequacy ratio decreases slightly below 10%. The volume of capital injections needed rises to roughly CZK 24 billion.

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This document was published on 5 December 2012 and has been placed on the CNB website:
http://www.cnb.cz/en/financial_stability/stress_testing/index.html