

CZECH BANKING SECTOR STRESS TESTS
NOVEMBER 2014

Financial Stability Department

2014

SUMMARY

The results of stress tests of the Czech banking sector performed using data available as of the end of 2014 Q3 confirm 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 stress scenario assuming a hypothetical sizeable decline in economic activity in the Czech Republic and abroad. The sector's resilience is based mainly on its high capital adequacy ratio, which exceeded 18% at the end of September 2014.

1. INTRODUCTION

The Czech National Bank regularly conducts stress tests to assess the impacts of highly adverse 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 2014 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.

2. MACROECONOMIC SCENARIOS

The **Baseline Scenario** is based on the CNB's official November macroeconomic forecast published in Inflation Report IV/2014 and assumes an increase in economic activity of 2.5% this year and the next due to growth in both domestic and external demand. Economic growth is expected to pick up to 2.8% in 2016. According to the forecast, the general unemployment rate will be around 6.3% at the end of 2014 and fall gradually from 2015 onwards. Owing to the rising economic activity, the inflation rate rises gradually and should reach the CNB's 2% target in 2016. Consistent with the forecast is stability of market interest rates until 2016 and a rise in rates thereafter. The forecast also expects the exchange rate to be used as a monetary policy instrument until 2016 Q1.

The **Europe in Deflation** stress scenario assumes an end to the euro area recovery and a marked drop in economic activity in the EU. The Czech economy falls back into recession owing to a decrease in external demand. This will lead to a return of the private sector's pessimistic expectations about future economic developments and to renewed deferral of household consumption and corporate investment. The combination of a downturn in external demand and then also in domestic demand will cause a sizeable decline in economic activity in the Czech Republic over the entire three-year horizon and result in a V-shaped recession. In addition, the debt deflation scenario will materialise, with price deflation leading to an increase in private sector debt in real terms as a result of declining economic activity, rising unemployment and falling wages. The gradual exhaustion of the financial buffers of households and non-financial corporations coupled with the rise in real debt will cause a significant deterioration in their ability to repay their debts. The problems in the real sector later also affect the financial sector, which records considerable credit losses and a marked decline in profits. Monetary policy remains easy, the three-month PRIBOR stays very low over the entire test horizon and the exchange rate weakens. However, long-term bond yields surge as global risk aversion increases and the safety of some assets is re-assessed. At the same time, banks revise their view of credit risk and increase their risk mark-ups on interest rates on new loans, which will shift to a much higher level also due to an increase in long-term rates.

Charts 1–4 illustrate the evolution of the key macroeconomic variables of the baseline and stress scenarios.

Chart 1

Alternative scenarios: Real GDP growth

(year on year in %)



Chart 2

Alternative scenarios: Unemployment

(%)

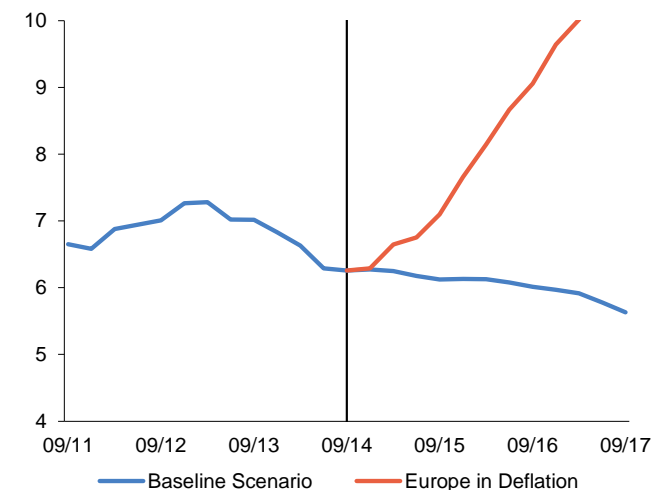


Chart 3

Alternative scenarios: Inflation

(year on year in %)

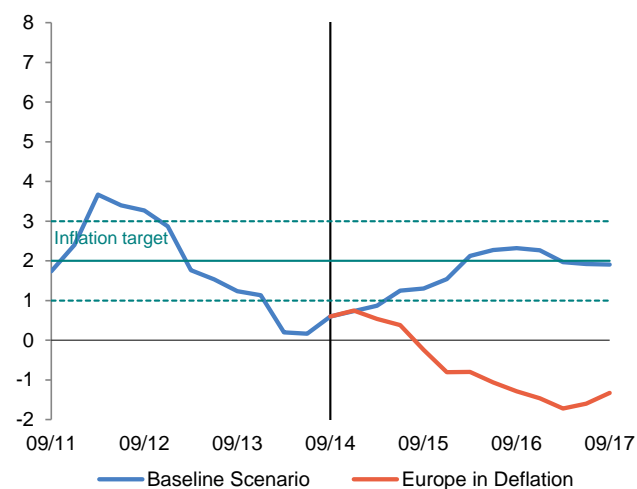
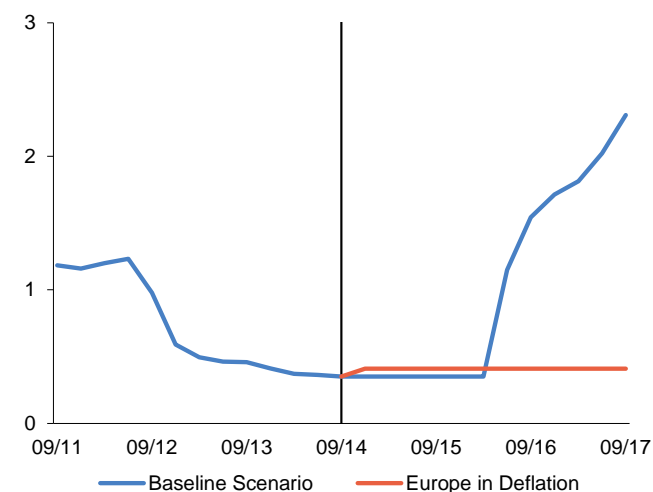


Chart 4

Alternative scenarios: 3M PRIBOR

(%)



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 decreases only modestly in 2015–2016 for both non-financial corporations and households (see Charts 5 and 6).

In the *Europe in Deflation* scenario, the combination of a drop in economic activity, an increase in unemployment and a decline in real wages would be reflected in a noticeable rise in credit risk and growth in the default rate for both non-financial corporations and households. NPLs in this scenario would be considerably higher than in the *Baseline Scenario*, not only in terms of the NPL ratio, but also in absolute terms, against which banks would have to create an appropriate level of provisions with a further negative effect on their profitability.

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

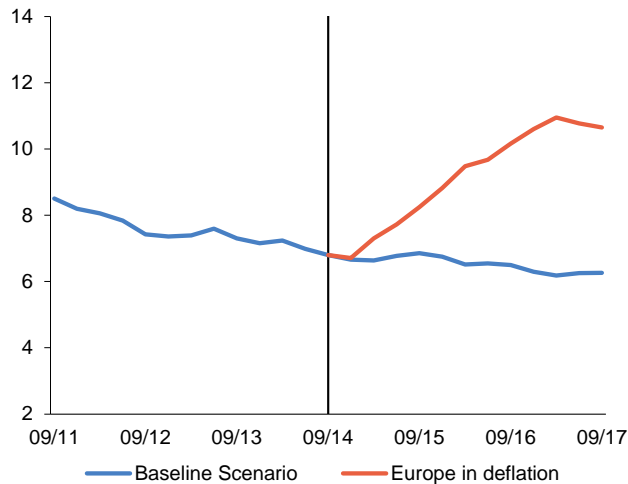
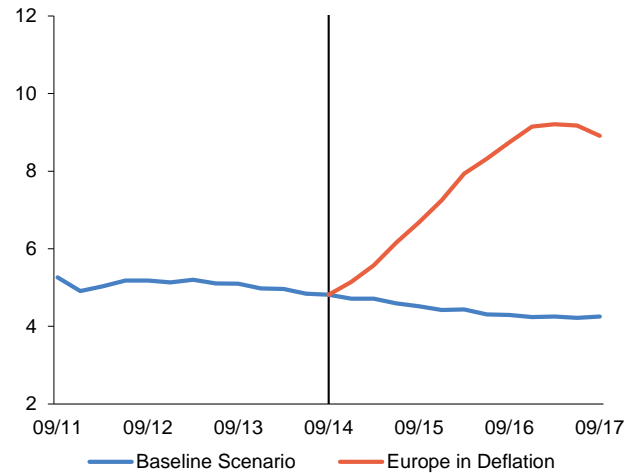


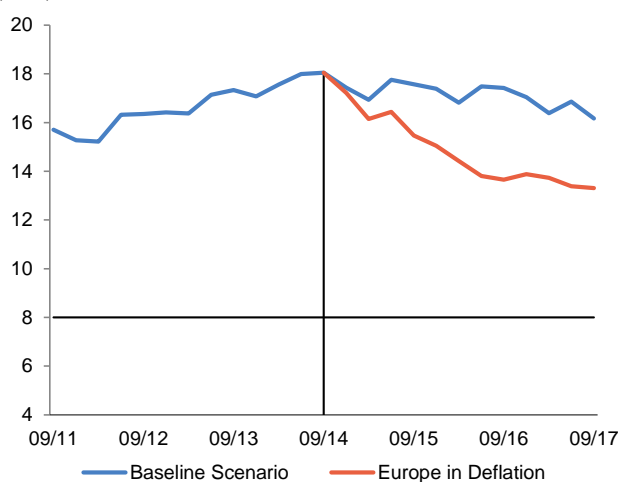
Chart 6
Non-performing loans: households
(in %)



Banks' operating profit is an important assumption of the stress tests, as it is the first buffer for covering potential banking sector losses. The *Baseline Scenario* assumes a slight fall in banks' operating profit (of about 5% year on year) owing to persisting strong competition in all market segments, which – combined with the environment of low interest rates – leads to a decline in interest and fee profits despite the expected recovery in credit activity. In the stress scenario, operating profits plummet, recording a cumulative fall of roughly 38% compared to 2013 over the test horizon.

Although it is weakened by lower profits and in the stress scenario hit by high credit losses, the banking sector as a whole remains stable in both scenarios and its aggregate capital adequacy ratio always stays above the regulatory minimum of 8% by a sufficient margin (see Chart 7). This result is achieved despite the conservative settings of many of the stress test assumptions. As in the stress tests in the 2013/2014 Financial Stability Report, the banking sector shows a high degree of resilience in the *Baseline Scenario*. The banking sector's stability is based on its high capital adequacy ratio, which rose by almost 1 percentage point compared to the start of the year, reaching 18% at the end of 2014 Q3.

Chart 7
Capital adequacy ratio
 (in %)



Despite the high resilience of the sector as a whole, three banks (representing around 2% of the sector's assets) would get into a situation of insufficient capital adequacy in the *Baseline Scenario*, implying an adjustment of their business models¹ or a need to top up their capital in the future.

In the adverse *Europe in Deflation* scenario, the sector as a whole records a loss which substantially reduces its regulatory capital, and its aggregate capital adequacy ratio falls below 14%. A total of eleven banks would get into a situation of insufficient capital adequacy in this 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 around CZK 15 billion (roughly 0.4% of GDP) as at the end of the test period. Relative to the size of the banking sector, this figure is still not significant enough to jeopardise its stability.

¹ Banks may also get into a situation of insufficient capital adequacy because the stress test methodology assesses their business model as unsustainable in the longer run. However, this methodology is based on a universal bank model and may not be entirely accurate for specialised banking institutions. The CNB therefore takes into account the institutions' specific characteristics when assessing the test results.

CZECH NATIONAL BANK
Na Příkopě 28
115 03 Praha 1
CZECH REPUBLIC

Contact:
FINANCIAL STABILITY DEPARTMENT
financial.stability@cnb.cz

This document was published on 10 December 2014 and has been placed on the CNB website:
http://www.cnb.cz/en/financial_stability/stress_testing/index.html