CZECH BANKING SECTOR STRESS TESTS NOVEMBER

2016

Financial Stability Department

CZECH NATIONAL BANK

SUMMARY

The results of stress tests of the Czech banking sector performed using data available as of the end of 2016 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 ratio, which stood at 17.7% at the end of September 2016, and on its robust profitability.

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 2016 and focus on the coming three 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.

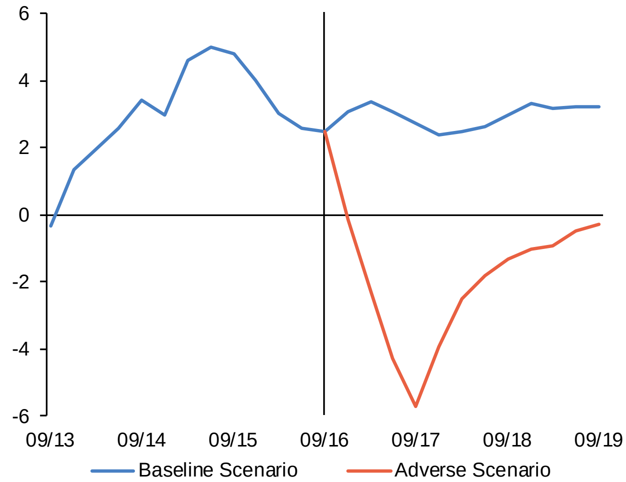
2. MACROECONOMIC SCENARIOS

The ***Baseline Scenario*** is based on the CNB's November macroeconomic forecast published in Inflation Report IV/2016 and assumes economic growth of 2.8% this year. In the next two years, GDP growth will maintain a similar pace as this year. Investment will increase, but a temporary slowdown in external demand and later also less easy monetary conditions following the discontinuation of the CNB's exchange rate commitment will simultaneously act in the opposite direction. Continued economic growth is accompanied by accelerating wage growth and only a slight drop in the general unemployment rate at the scenario horizon. Headline inflation will rise from its current low level and reach the 2% inflation target by the end of 2017. In 2018, it will be slightly above the target. Consistent with the forecast is stability of market interest rates at their current very low level until mid-2017, followed by a gradual increase in rates as from the second half of 2017. The forecast also assumes that the exchange rate will be used as a monetary policy instrument until mid-2017.

The ***Adverse Scenario*** assumes a marked drop in economic activity in Europe. The Czech economy falls back into recession owing to a decrease in external demand. This causes a return of pessimistic private sector expectations about future economic developments and 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 and result in a V-shaped recession. In addition, a debt deflation scenario will materialise, with price deflation leading to real growth in private sector debt as a result of declining economic activity, rising unemployment and falling wages. The adverse economic situation causes the funds of households and non-financial corporations gradually to become exhausted. Coupled with a rise in real debt, this causes a significant deterioration in their ability to repay their obligations. The problems in the real economy 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 sharply. However, long-term bond yields surge as global risk aversion increases and the quality of some assets is re-assessed. At the same time, banks tighten 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 interest rates. The related rise in debt service together with the other impacts of the recession will increase the default rate on loans to households and loans to non-financial corporations.

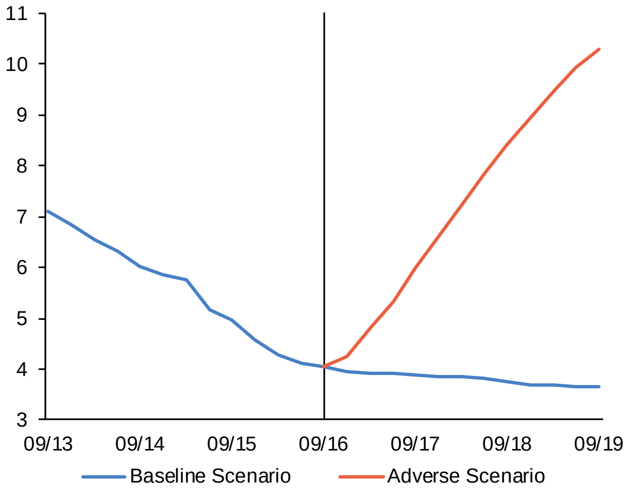
Charts 1–4 illustrate the evolution of the key macroeconomic variables of the baseline and adverse scenarios.

Chart 1
Alternative scenarios: Real GDP growth
(year on year in %)



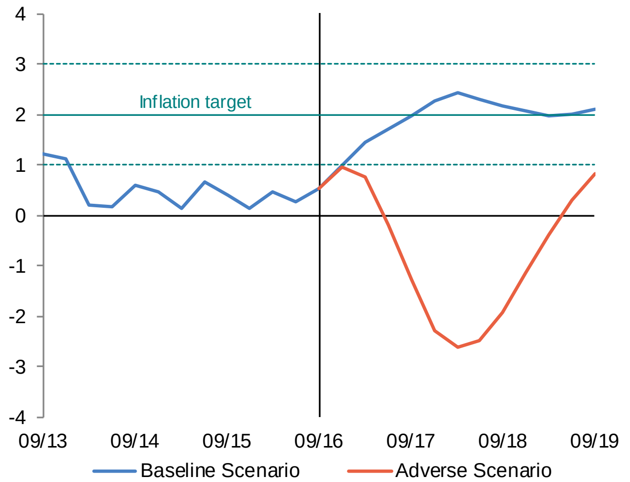
Source: CNB

Chart 2
Alternative scenarios: Unemployment
(in %)



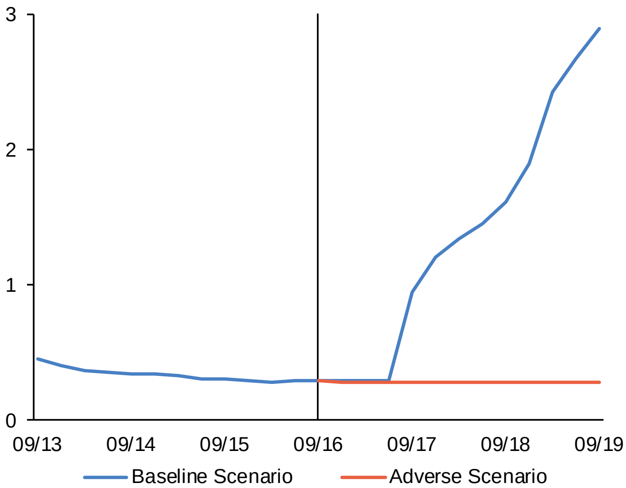
Source: CNB

Chart 3
Alternative scenarios: Inflation
(year on year in %)



Source: CNB

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



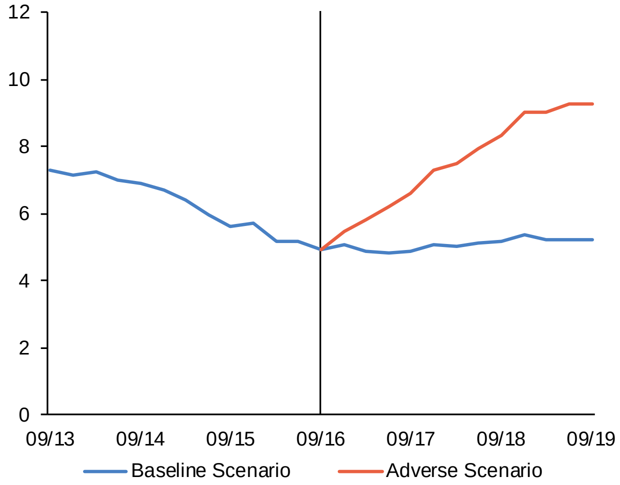
Source: CNB

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 increases modestly in 2018–2019 for both non-financial corporations and households (see Charts 5 and 6).

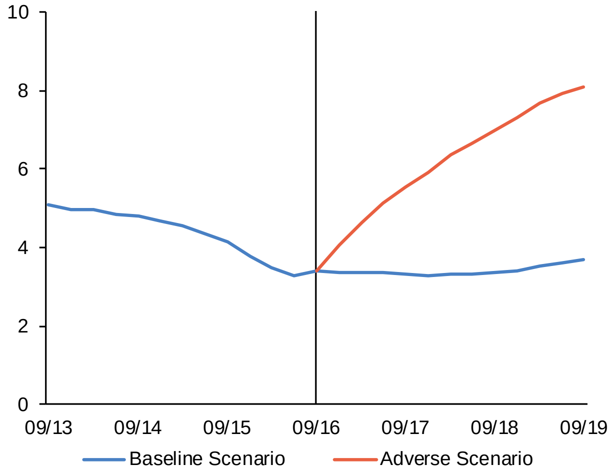
In the *Adverse Scenario*, the combination of a drop in economic activity, an increase in unemployment and a decline in real wages would be reflected in a noticeable rise in credit risk caused by growth in the default rate for both non-financial corporations and households. NPLs would be considerably higher than in the *Baseline Scenario*, not only in terms of the NPL ratio, but also in absolute terms. Banks would then have to create an appropriate level of provisions with an adverse impact on their profitability.

Chart 5
NPL ratio: non-financial corporations
(in %)



Source: CNB

Chart 6
NPL ratio: households
(in %)

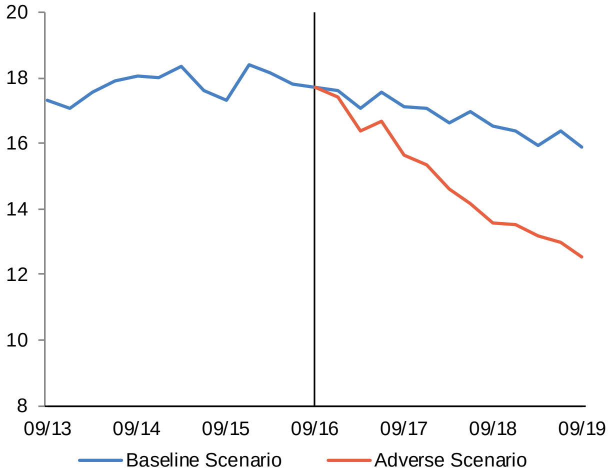


Source: CNB

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 profits 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 *Adverse Scenario*, operating profits drop sharply, recording a fall of roughly 40% compared to 2015 over the test horizon.

Although it is weakened by lower profits and in the *Adverse Scenario* hit by high credit losses, the banking sector as a whole remains stable in both scenarios and its aggregate capital 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. The sector's resilience is based mainly on its high capital ratio, which stood at 17.7% at the end of September 2016, and on its robust profitability.

Chart 7
Total capital ratio
(in %)



Source: CNB, CNB calculation

Despite the high resilience of the sector as a whole, one bank would get into a situation of insufficient capital adequacy in the *Baseline Scenario*, implying an adjustment of its business model[1] or a need to top up its capital by about CZK 0.4 billion (0.01% of GDP) in the future.

In the *Adverse Scenario*, the sector as a whole records a loss which substantially reduces its regulatory capital and its aggregate capital ratio falls below 13%. A total of eight banks (representing about 13.5% of the sector's assets) would get into a situation of insufficient capital adequacy in this scenario. To make up their aggregate capital ratio 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 8.6 billion (roughly 0.2% 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] A bank may also get into a situation of an insufficient capital ratio because the stress test methodology assesses its business model as unsustainable in the longer run. This is because the methodology is based on a universal bank model and may not be entirely accurate for specialised banking institutions. The CNB therefore takes into account institutions' specific characteristics when assessing the test results.