

# Financial Stability Report 2013/2014

Press Conference Presentation

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Prague, 17 June 2014

- I. Overall assessment of risks, position in financial cycle and setting of countercyclical capital buffer
- II. Alternative economic scenarios for assessment of risks and stress tests
- III. External versus domestic demand and credit risk
- IV. Risks associated with exposures to property market
- V. Bond markets and risks associated with sovereign exposures
- VI. Stress tests – May 2014

I.

Overall assessment of risks, position in financial cycle and  
setting of countercyclical capital buffer

- FSR 2013/2014 is the CNB's tenth financial stability report.
- For the first time we are issuing it as the institution authorised by law to conduct macroprudential policy.
  - Under Article 2(2) of the Act on the CNB, the CNB sets macroprudential policy by identifying, monitoring and assessing risks jeopardising the stability of the financial system and, in order to prevent or mitigate these risks, contributes by means of its powers to the resilience of the financial system and the maintenance of financial stability...
- In addition to comprehensive risk assessment, the fulfilment of financial stability objectives and the conduct of macroprudential policy requires assessment of the position of the economy in the financial cycle.

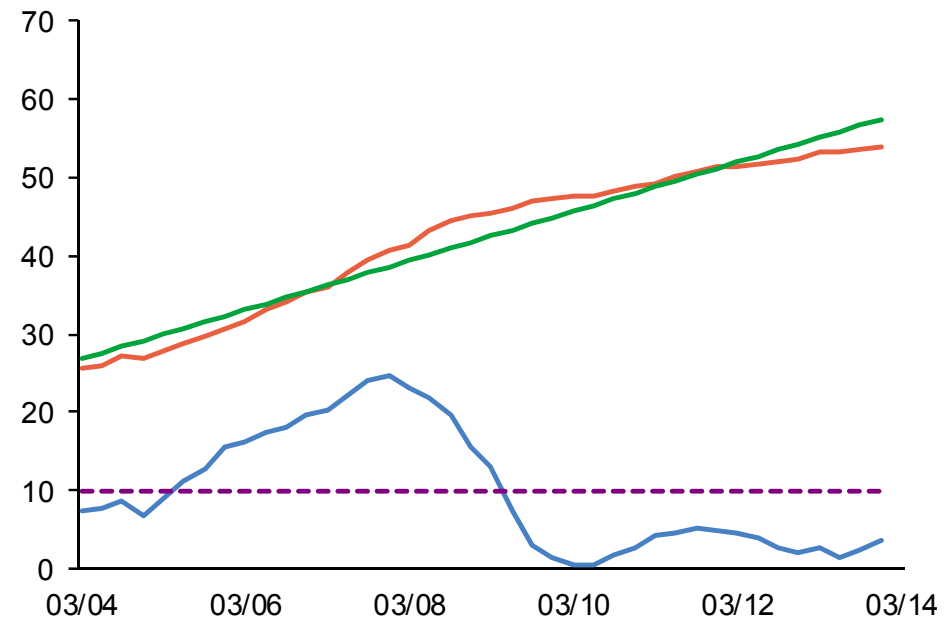
- We assess the risks to financial stability as being mostly low.
  - A potential deterioration of the credit portfolio resulting from renewed adverse developments in the real economy remains the main risk to the Czech banking sector.
  - Persisting very low long-term yields worldwide are also a source of risks – the Czech financial sector could be adversely affected by bond market volatility.
- The financial cycle in the Czech Republic is in a phase of modest credit recovery.
  - The absence of unhealthily optimistic expectations due to the weakened domestic activity is discouraging strong lending activity and excessive risk-taking.

- The CNB currently does not regard a non-zero countercyclical capital buffer as necessary.

- The ratio of loans to GDP in the Czech Republic is slightly below its trend level.
- The other credit growth indicators in the FSR also do not support a non-zero countercyclical capital buffer.

Assessment of the need to set a non-zero CCB

(%)



- Year-on-year growth in bank loans to residents
- Credit-to-GDP ratio
- Credit-to-GDP ratio trend (HP filter)
- - - Average credit growth

Source: CNB

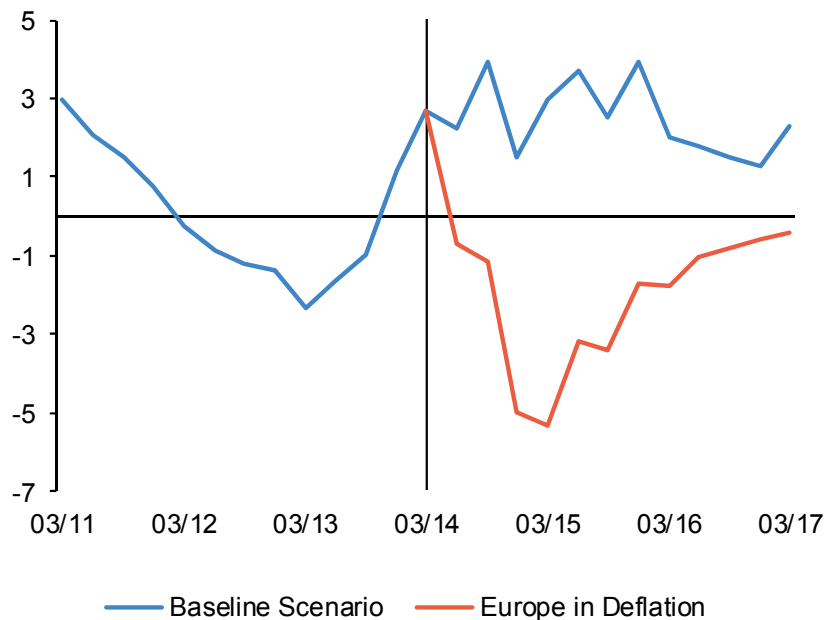
## II.

# Alternative economic scenarios for assessment of risks and stress tests

- *Baseline Scenario*
  - based on the CNB's May forecast published in IR II/2014,
  - assumes a recovery of the domestic economy in 2014, continuing growth in 2015 and a gradual decrease in unemployment over the scenario horizon.
- *Europe in Deflation*
  - the return of a V-shaped recession,
  - a fall of the economy into deflation,
  - a jump in government bond yields,
  - a surge in unemployment and a drop in wages leads to exhaustion of the financial reserves of some households and corporations,
  - the adverse developments cause growth in credit risk and high credit losses in the banking sector.

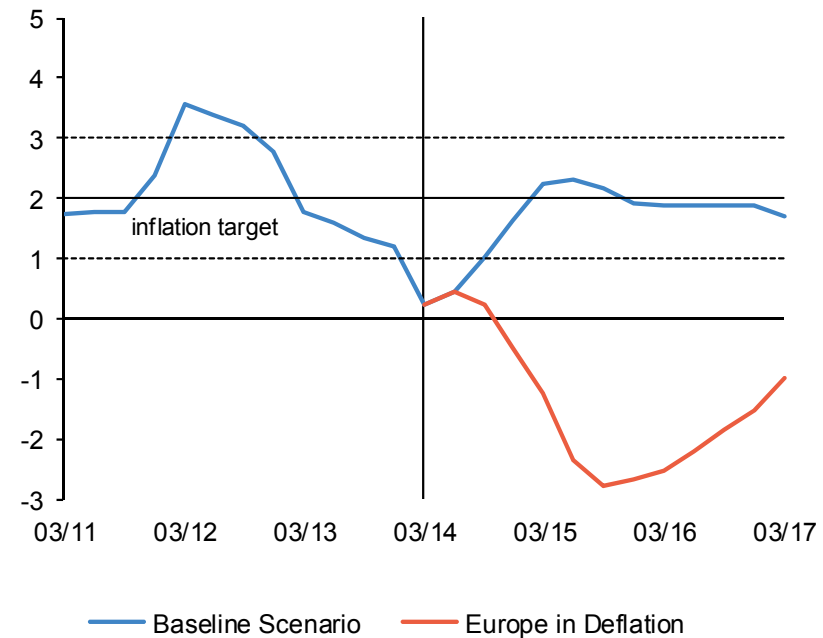
- The *Europe in Deflation* stress scenario captures above all the risk of a deterioration of the credit portfolio resulting from adverse developments in the real economy.

**Alternative scenarios: real GDP growth**  
(year-on-year change in %)



Source: CNB

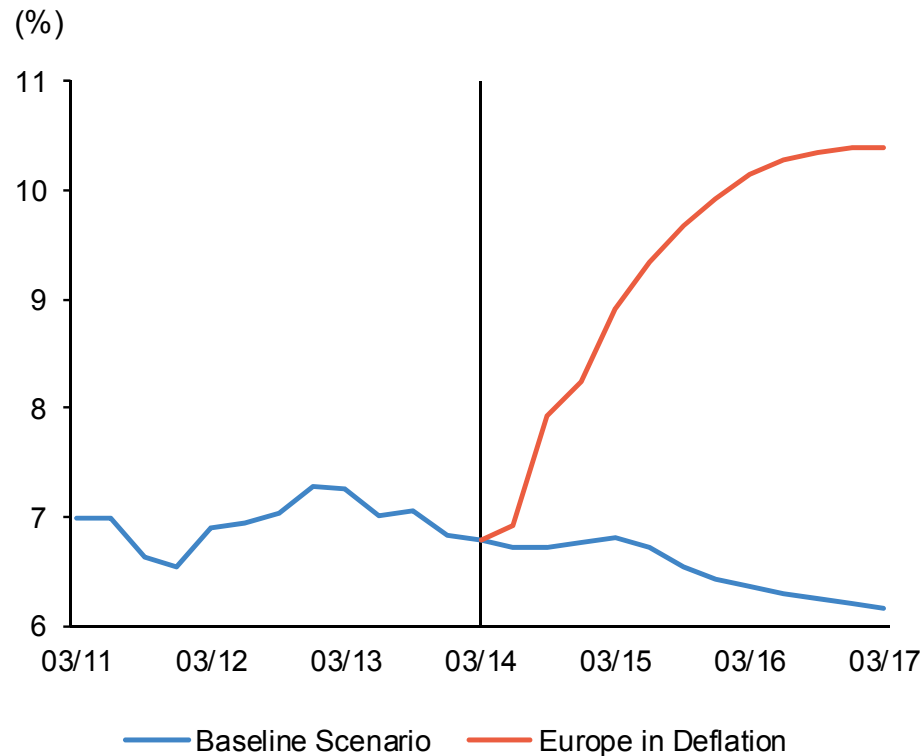
**Alternative scenarios: inflation**  
(%)



Source: CNB

- The stress scenario contains a strong shock to unemployment and property prices.

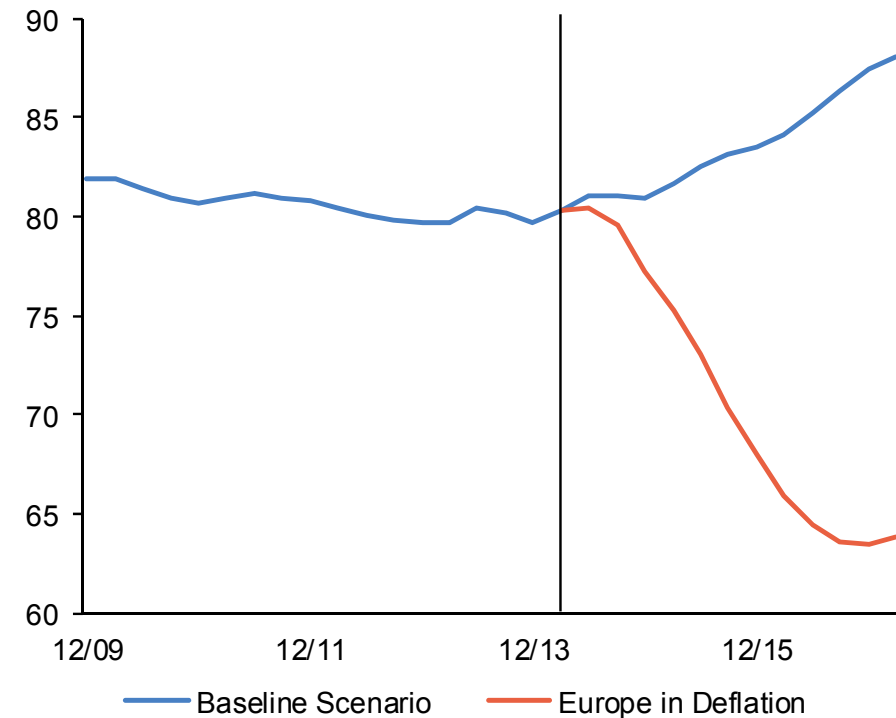
**Alternative scenarios: unemployment**



Source: CNB

**Property price scenario**

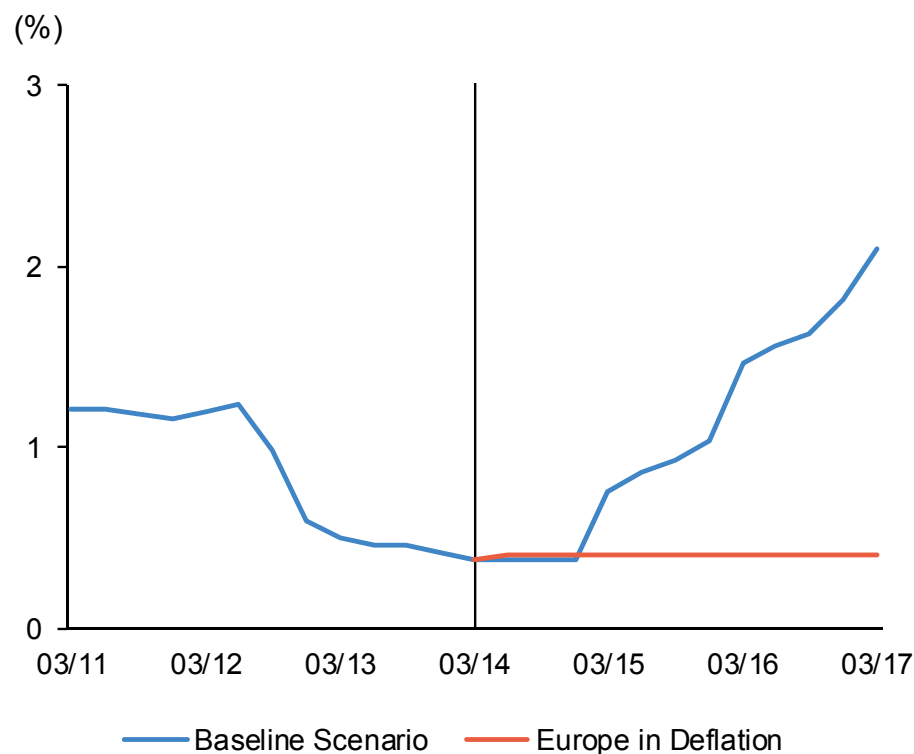
(absolute index; maximum: 2008 Q3 = 100)



Source: CZSO, CNB calculation

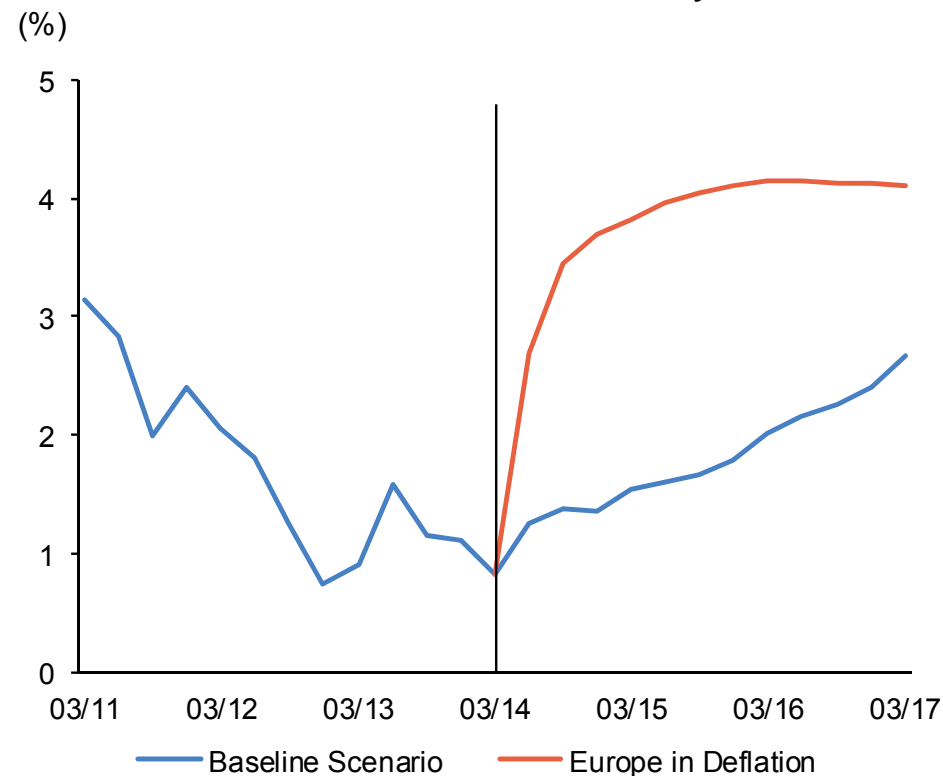
- The stress tests also included a marked rise in long-term interest rates, even in the deflation scenario.

Alternative scenarios: 3M PRIBOR



Source: CNB

Alternative scenarios: 5Y Government bond yield



Source: CNB

### III.

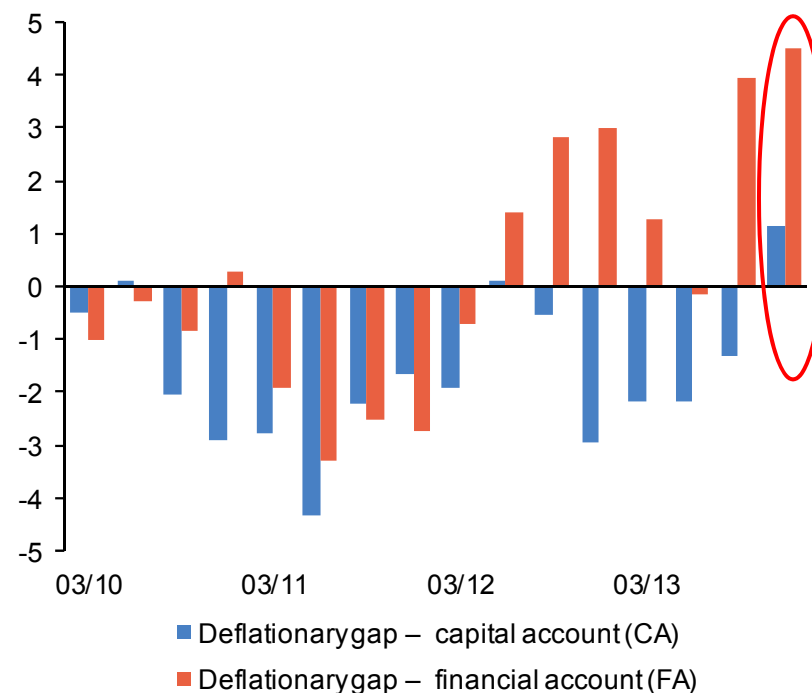
## Economic activity and credit risk

- As in many other advanced economies, the sources of credit risk in the Czech Republic are subdued domestic demand and disinflationary or even deflationary pressures.
- There is a rising risk of a balance-sheet recession:
  - some sectors are generating high financial surpluses which are not spent by general government,
  - this is resulting in an imbalance between saving and investment, causing insufficient demand.
- The CNB is actively fighting the risk of a drop in demand and deflation by using the exchange rate as a monetary policy instrument, which is contributing to the stability of the financial system.

## Indicator of balance-sheet recession risk: financial surpluses/deficits in the Czech Republic

- A gradual rise in the financial surplus of the corporate sector occurred amid a decrease in the deficit of general government and a slightly falling financial surplus of households.
- At the end of 2013 Q4, both sources of data on financial surpluses/deficits indicated a positive deflation gap between the private sector surpluses and the government sector deficit for the first time.

Deflationary gap  
(% of GDP)



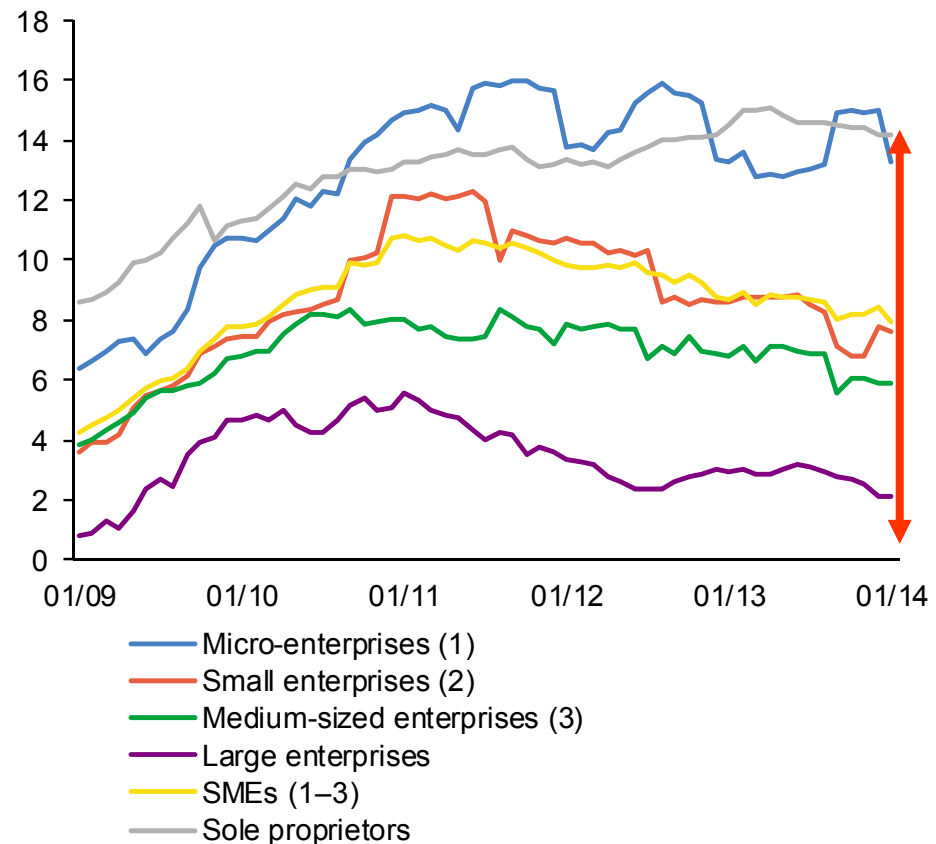
Source: CNB, CZSO

Note: FA and CA refer to the balancing items on the financial account and capital account respectively. The two balancing items measure the sector's financial surpluses/deficits in the given period and should be equal in theory. The differences in the indicators are due to measurement errors and statistical discrepancies. **The deflationary gap is the difference between the private sector surplus and the general government deficit and may indicate potential deflationary pressures.**

- The financial performance indicators of non-financial corporations started to improve in late 2013, albeit unevenly.

- The differentiation of financial results by sector and by size increased.
- Small enterprises often face a considerably higher financial burden than large ones.

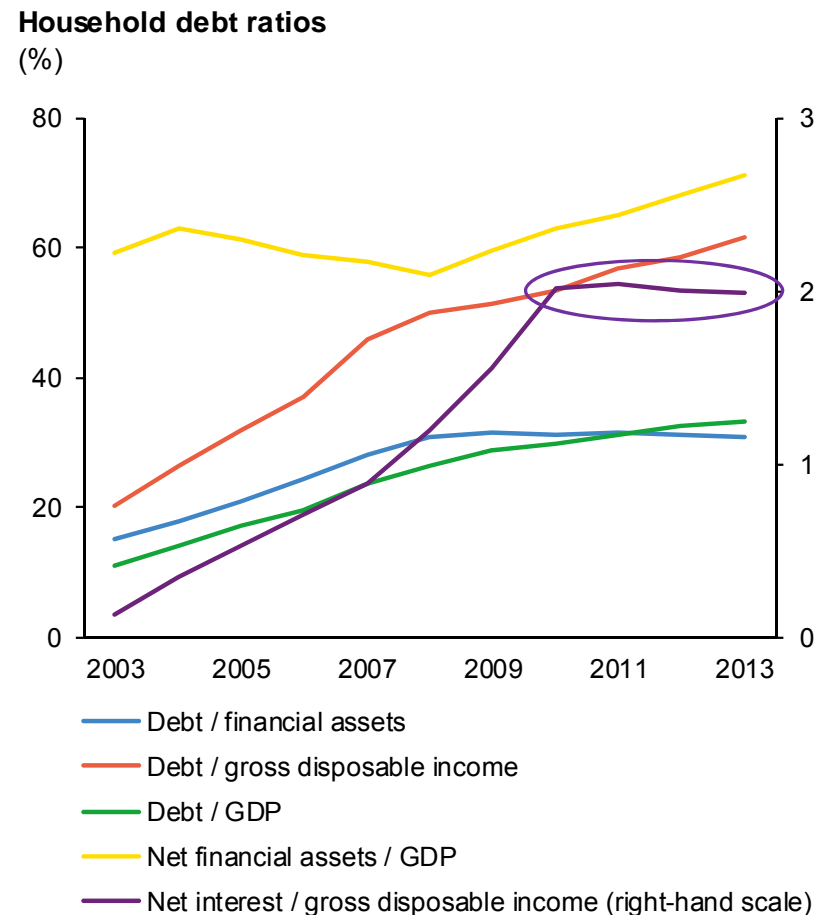
**NPL ratios for bank loans by non-financial corporation size**  
(as % of given category)



Source: CNB

- The labour market situation, which determines household credit risk, will not improve considerably until 2015, when wage growth will pick up pace and unemployment will start to fall.

- Household credit risk fell slightly in 2013 and should continue to fall in 2014.
- The decline in interest rates is having a favourable effect on debt servicing costs and reducing credit risk, but it may cause an “illusion” of easy repayment.

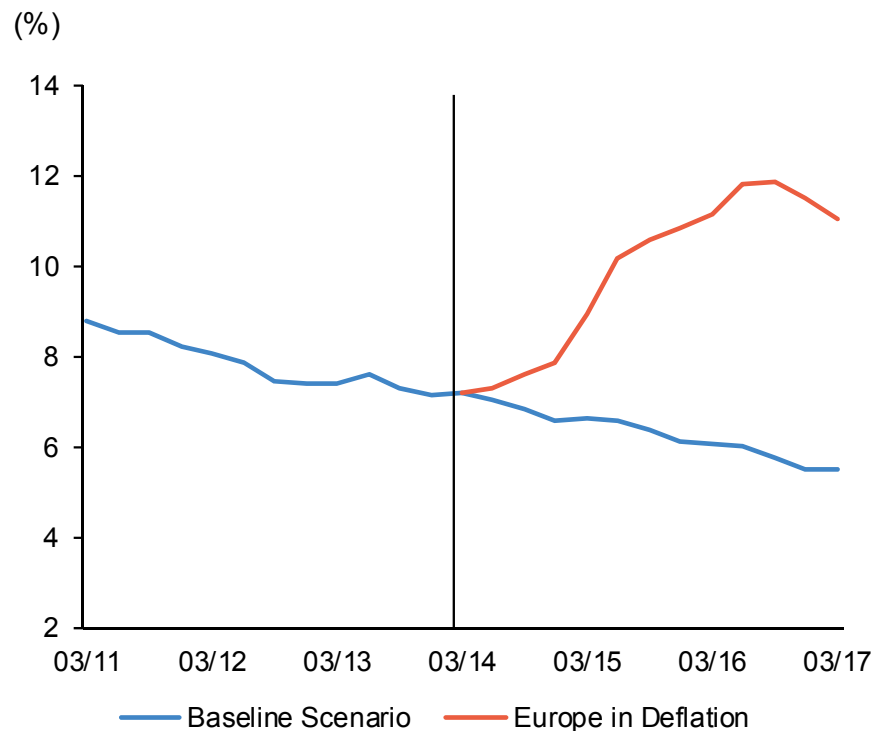


Source: CNB, CZSO

## Developments in NPL ratio

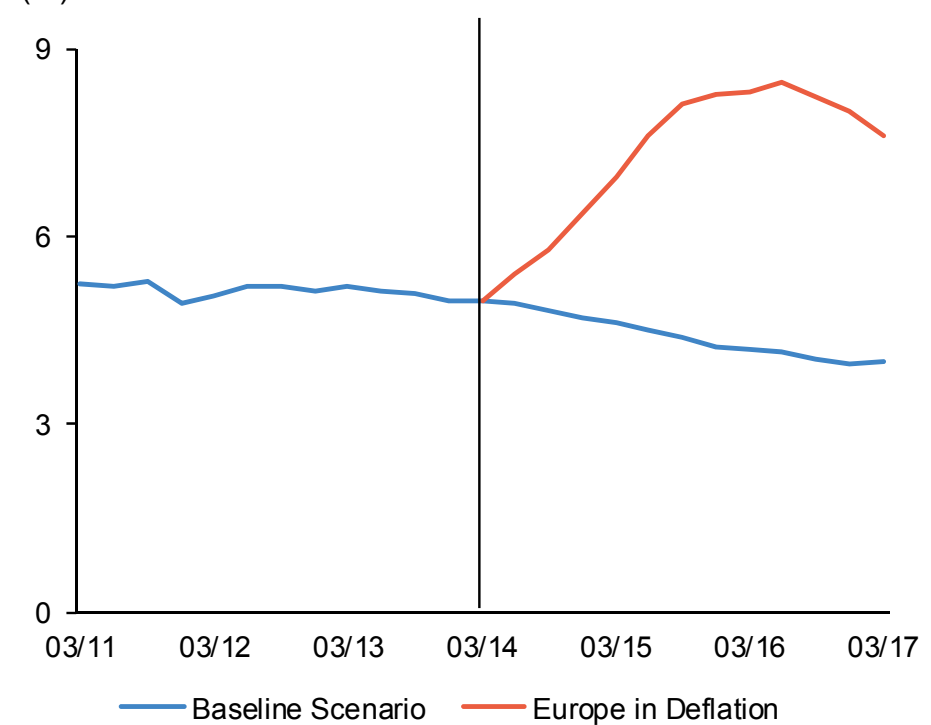
- The NPL ratio should decline gradually in both sectors in the *Baseline Scenario*
  - to levels seen just before the crisis, i.e. around 5% for corporations and 4% for households in early 2017.

**NPL ratio for bank loans in the non-financial corporations sector**



Source: CNB

**NPL ratio for bank loans in the household segment**



Source: CNB

## Credit risk remains elevated and potential credit losses are rising...

- Migration of NPLs to loss loans and to NPLs more than three months past due is continuing.

- A considerable number of loans provided recently, i.e. in 2012–2013, can be seen among NPLs and NPLs more than three months past due.

### Structure of NPLs

(%)

| NPLs by categorisation |              |                   |                       |             |
|------------------------|--------------|-------------------|-----------------------|-------------|
|                        | Non-standard | Doubtful          | Loss                  | NPLs, total |
| 2010                   | 39.2         | 13.4              | 47.4                  | 100.0       |
| 2011                   | 32.6         | 14.0              | 53.5                  | 100.0       |
| 2012                   | 27.0         | 14.3              | 58.7                  | 100.0       |
| 2013                   | 26.4         | 14.3              | 59.3                  | 100.0       |
| NPLs past due          |              |                   |                       |             |
|                        | Not past due | Up to 3M past due | More than 3M past due | NPLs, total |
| 2010                   | 51.6         | 9.9               | 38.5                  | 100.0       |
| 2011                   | 46.1         | 9.4               | 44.5                  | 100.0       |
| 2012                   | 43.6         | 9.5               | 46.9                  | 100.0       |
| 2013                   | 41.8         | 6.7               | 51.5                  | 100.0       |

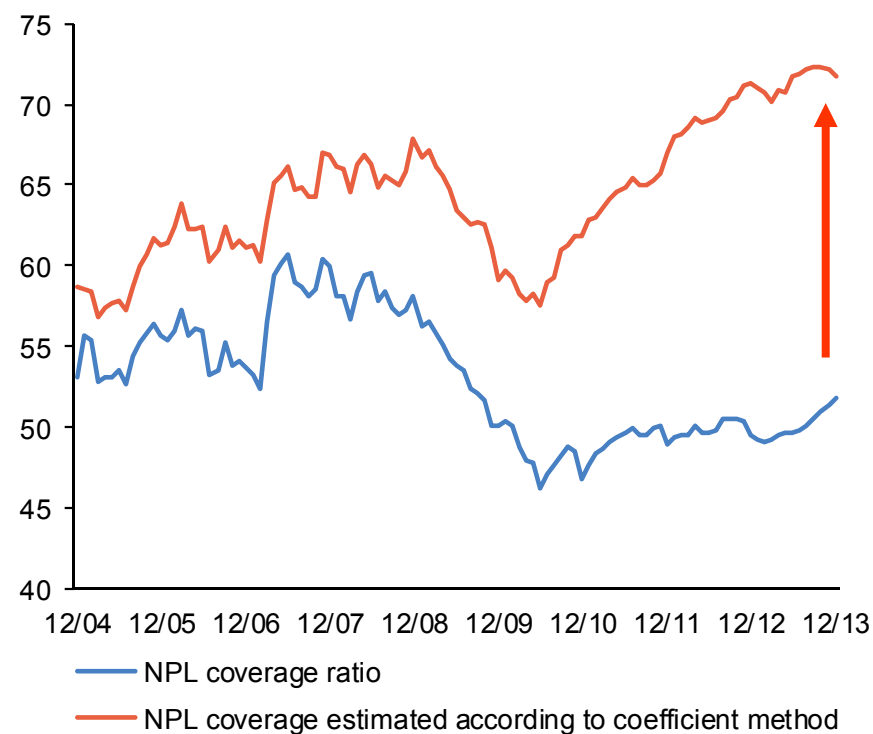
Source: CNB, CNB calculation

- The coverage of NPLs by provisions has long been almost flat despite a deteriorating NPL structure in terms of potential losses.

- The gap between estimated necessary provisions (based on the coefficient method) and actual provisioning is widening.

Coverage of NPLs by provisions

(%)



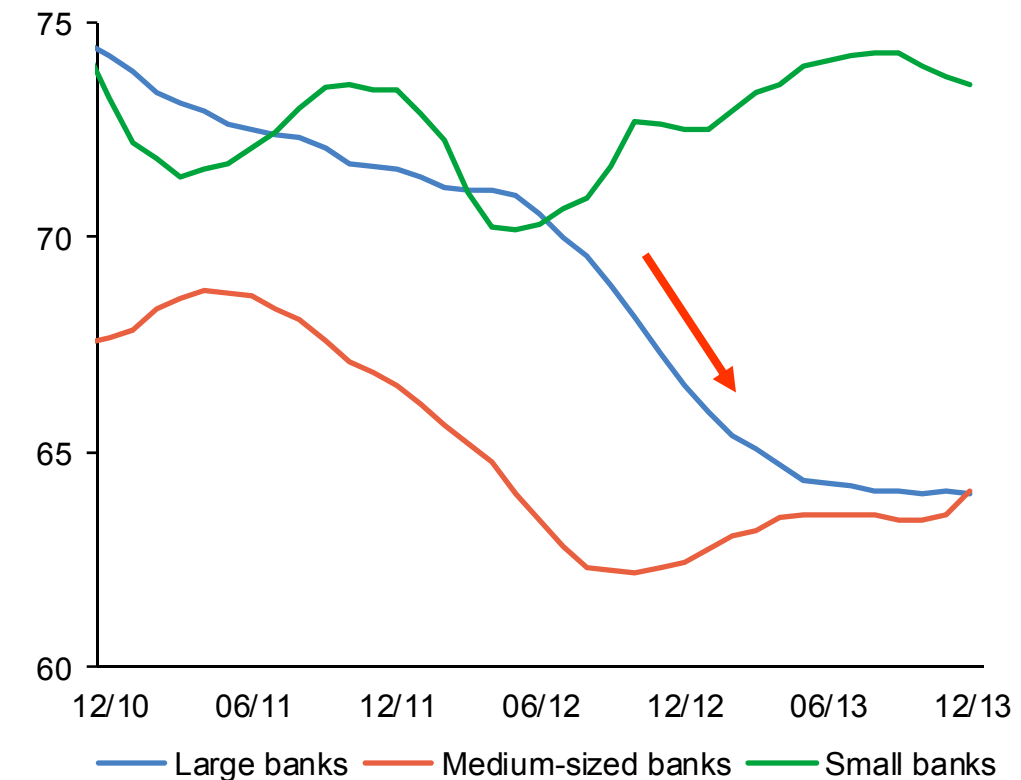
Source: CNB

## Implicit risk weights decreased for large banks

- Average risk weights – adjusted for sovereign exposures – decreased by 8 pp in 2011–2013 to 64%.

- This mainly concerns large banks.
- The trend decline in risk weights cannot be fully explained by a move away from risky exposures.

Risk weights by bank size  
(%)



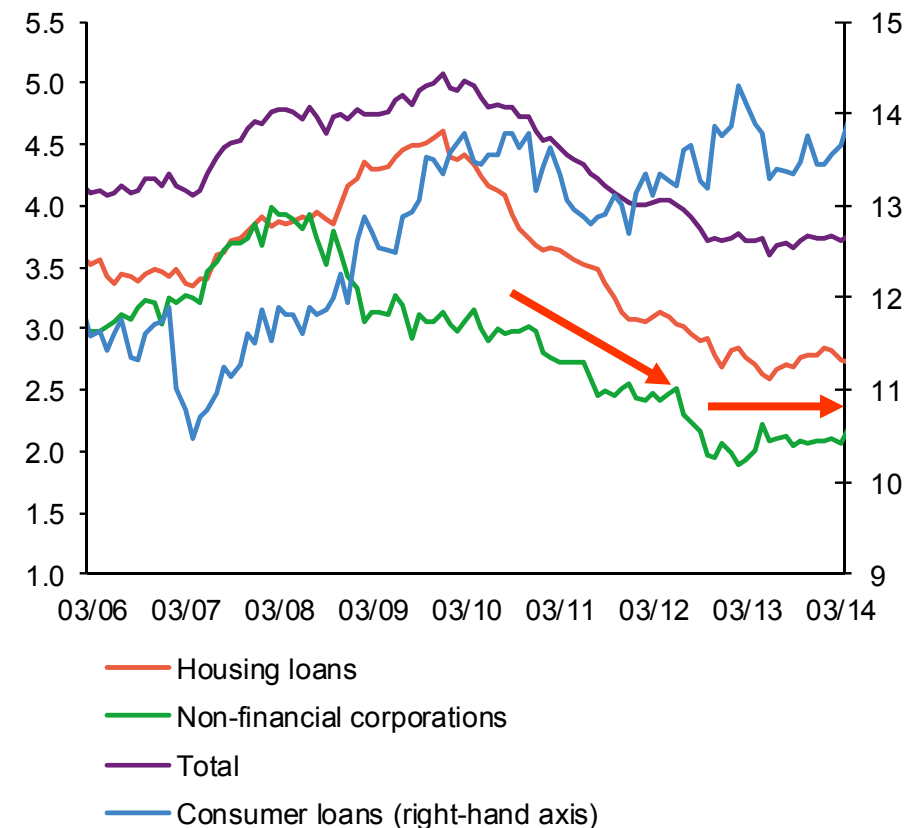
Source: CNB

## Interest margins stopped declining

- A positive factor from the credit risk perspective is that interest margins on new loans stopped falling or showed modest growth.

- The probability of margins not being consistent with appropriate credit risk evaluation is decreasing.

Interest margins from new bank loans in the Czech Republic  
(in p.p.)



- We assess the potential impacts of credit risk on bank balance sheets as being elevated as a result of a deteriorating NPL structure.
- The coverage of NPLs by provisions may not suffice in the future.
- We do not consider a further decrease in risk weights to be desirable.
- With regard to the expected evolution of credit risk and the deterioration of the NPL structure, the CNB's recommendations from last year's FSR remain valid:
  - prudential categorisation of claims,
  - creation of sufficiently high provisions,
  - appropriate risk weight setting,
  - correct valuation of collateral.

- The banking sector has strengthened its capital adequacy and is well prepared overall for new European regulatory rules.
- The transposition of the EU's CRD IV directive authorises the CNB to set requirements for domestic banks partly on the basis of their systemic importance.
- The long-term structural characteristics of the Czech financial and economic system have led the CNB to decide to start regulating bank capital on the basis of systemic importance as soon as this mandate takes effect.
  - The CNB regards the use of systemic risk buffers as the most appropriate choice.
  - CNB analyses show that compliance with this buffer needs to be required of four systemically important banks.
- The CNB will demand compliance with the systemic risk buffer – together with the capital conservation buffer pertaining to all banks – as soon as the relevant legislation is adopted (second half of 2014).
  - Banks were informed in autumn 2013.

## IV.

# Risks associated with exposures to the property market

- Residential property prices started rising again in 2013 after a long period of decline.
  - This growth can be interpreted as a correction of the previous slight undervaluation of apartment prices.
- According to the CNB, residential property prices are currently close to their equilibrium levels.
- Small increases in residential property prices are assumed in the *Baseline Scenario*.
  - The scope for stronger price growth will be reduced by slow growth in household income and worsening demographic characteristics.
  - There is no danger of a more significant price bubble emerging at the moment.
- In 2013, an improvement in sales in residential property developments together with a recovery in the commercial property market led to a decrease in the NPL ratio in the property development sector.

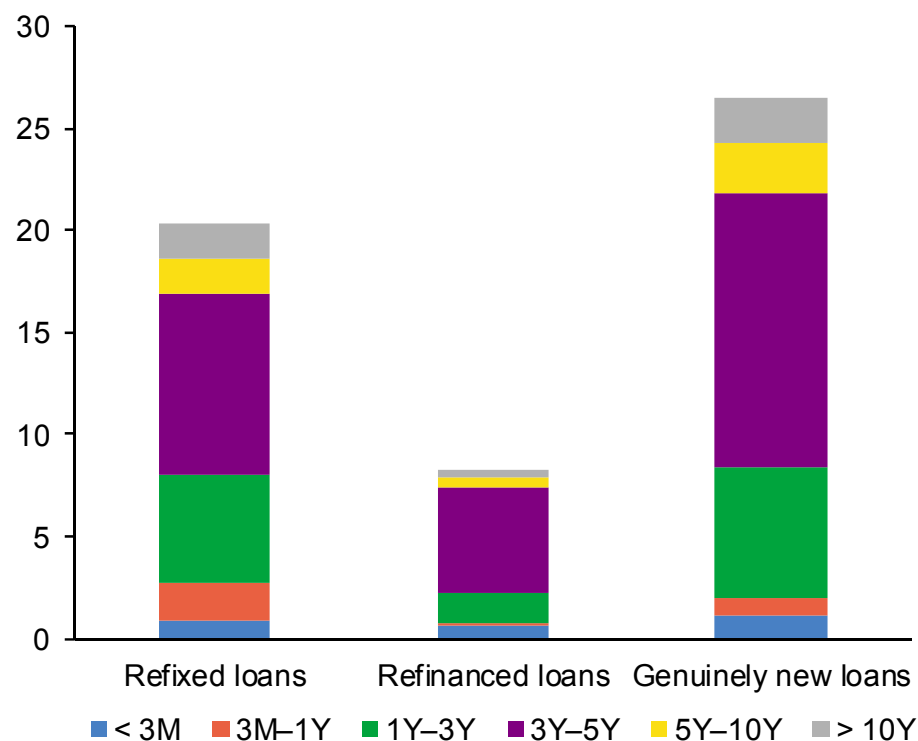
## Structure of fixation periods for refixed loans

- A potential risk in the area of loans for house purchase would be a situation where households, when refixing, reduced the fixation period of the new contract to an increased extent.

- New (preliminary) data indicate that this risk is not currently relevant.
- Although the share of loans with new fixation periods of up to one year is rather higher for refixed/refinanced loans than for genuinely new loans, the differences are not large.

### New loans to households for house purchase by rate fixation period

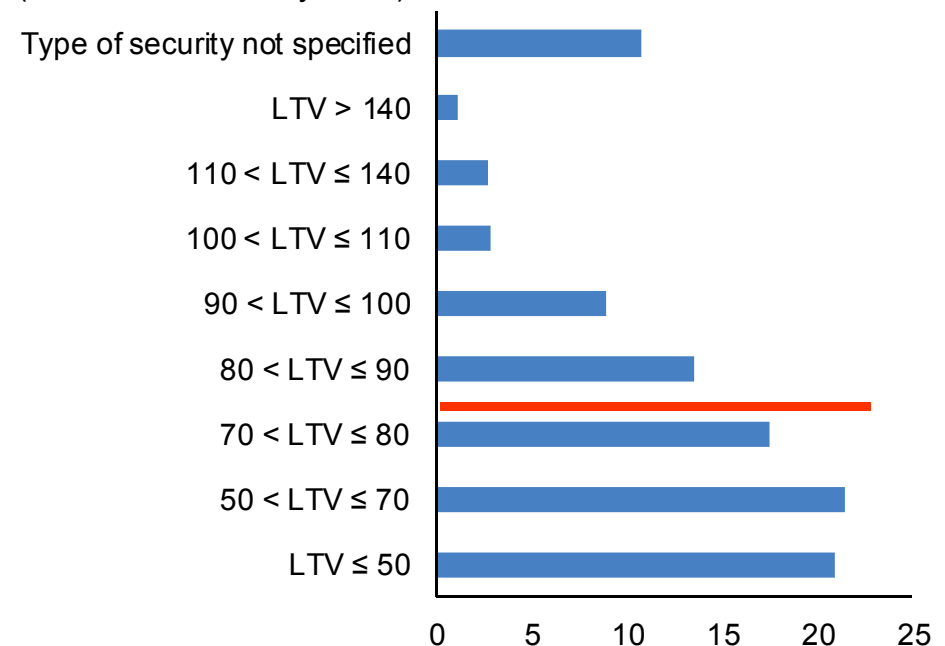
(CZK billions; figures for 2014 Q1)



Source: CNB

- For the eventuality of an overheating of the property market, the CNB will legislate for tools able to moderate any excessive future credit expansion.
- These tools include sector-specific risk weights applicable under CRD IV/CRR and quantitative limits on the loan-to-value (LTV) ratio.
- The CNB currently does not regard the introduction of LTV limits as necessary.
  - The aggregate LTV ratio on the stock of loans is relatively low, although the share of loans with a relatively high LTV is not negligible.
  - 67% of loans with specified collateral has an LTV of up to 80%.

**Share of bank loans to households in each LTV interval**  
(%; as of 31 January 2014)



Source: CNB

V.

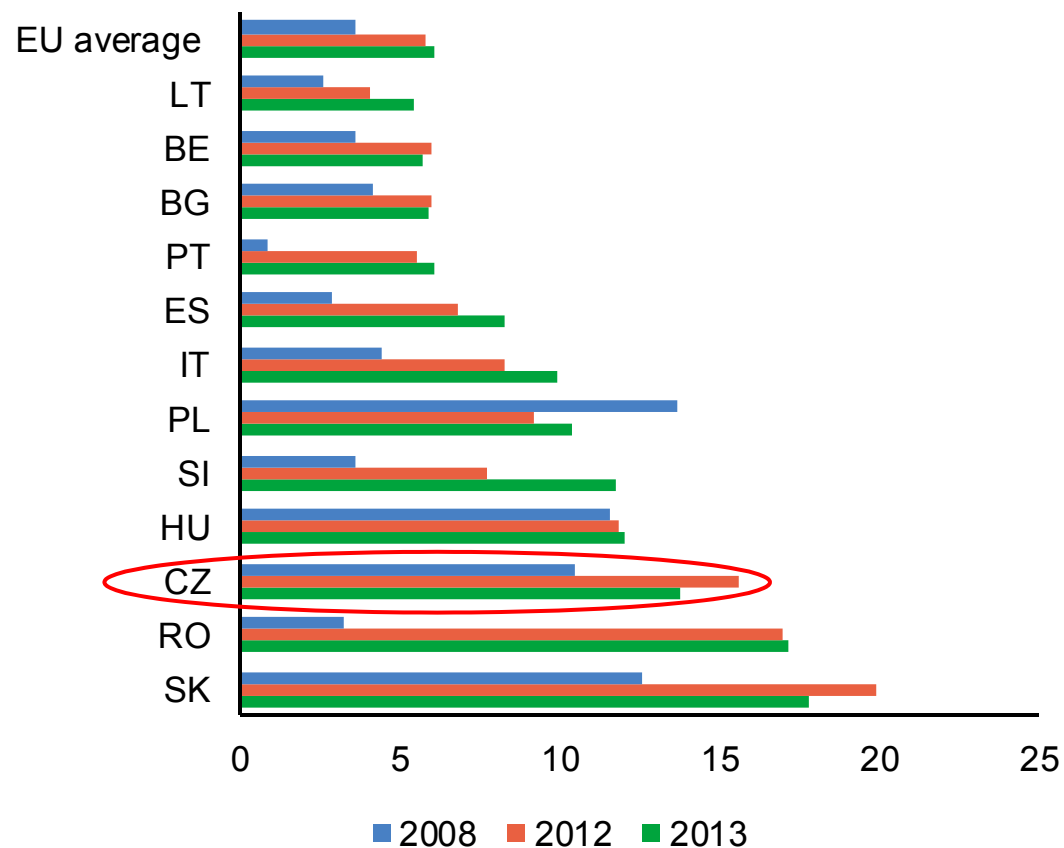
Bond markets and risks associated with sovereign  
exposures

- 2013 saw a global surge in the intensity of new risks associated with the response of financial investors to low yields on safe assets.
  - Efforts to achieve higher returns are being reflected in increased risk-taking, and bubbles are starting to form in some markets.
- The developments in bond markets and some property markets are generating potential for systemic risk.
  - A sudden change in market sentiment may cause sudden repricing of the assets concerned and related market losses.
  - If risks were to be reassessed quickly and unexpectedly, a wave of sell-offs and a market liquidity crisis could occur.
- According to the CNB, the probability of such a scenario is very low, as long-term interest rates may stay at historically low levels for an extended period due to fundamental factors.

## Share of government bonds in balance sheets of Czech banks

- In last year's FSR, the CNB pointed to concentration risk linked with the high share of government bonds in the balance sheets of Czech banks.
- The share of government bonds in total bank assets in the Czech Republic declined year on year.
- The interconnectedness of the financial and government sectors remains significant.
- Some banks are showing elevated concentration risk.

**Domestic government bonds in MFI balance sheets (%)**

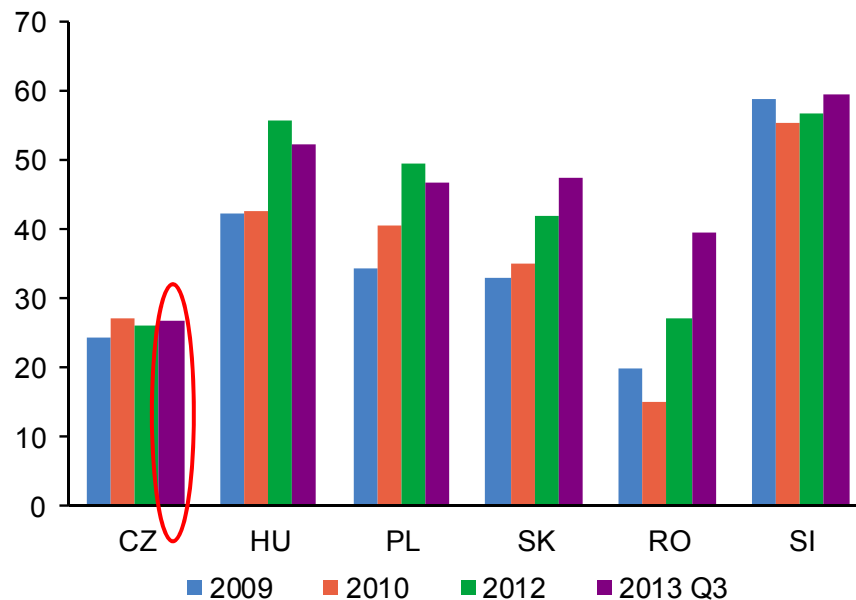


# Assessment of sovereign exposure risks

- Sovereign risk does not currently present a threat to financial stability in the Czech Republic.
  - The Czech Republic's current fiscal situation is sustainable.
  - The shares of non-residents and foreign currency issuance in Czech government debt are low.

**Share of non-residents in government bond holdings in selected CEE countries**

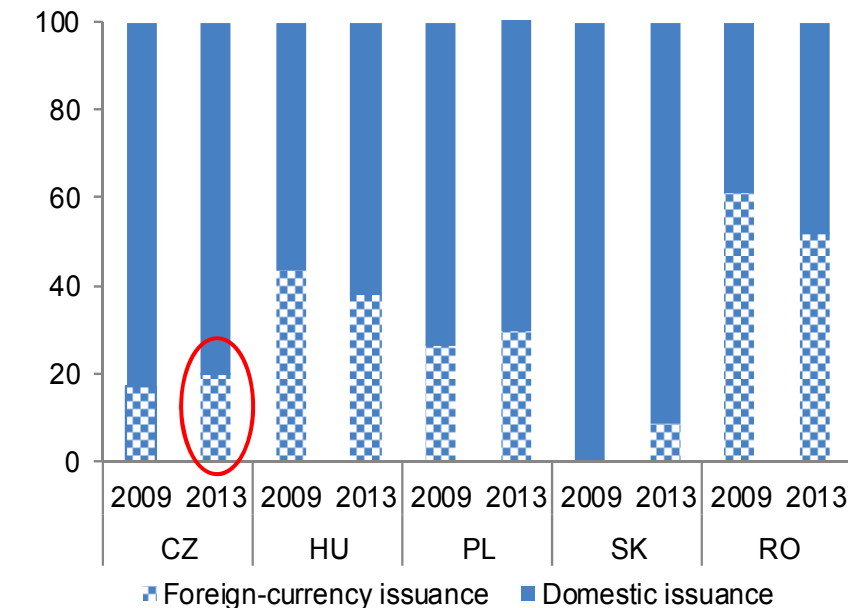
(%: end-of-period data)



Source: IMF, World Bank

**Share of domestic and foreign-currency issuance in government debt for selected CEE countries**

(%)



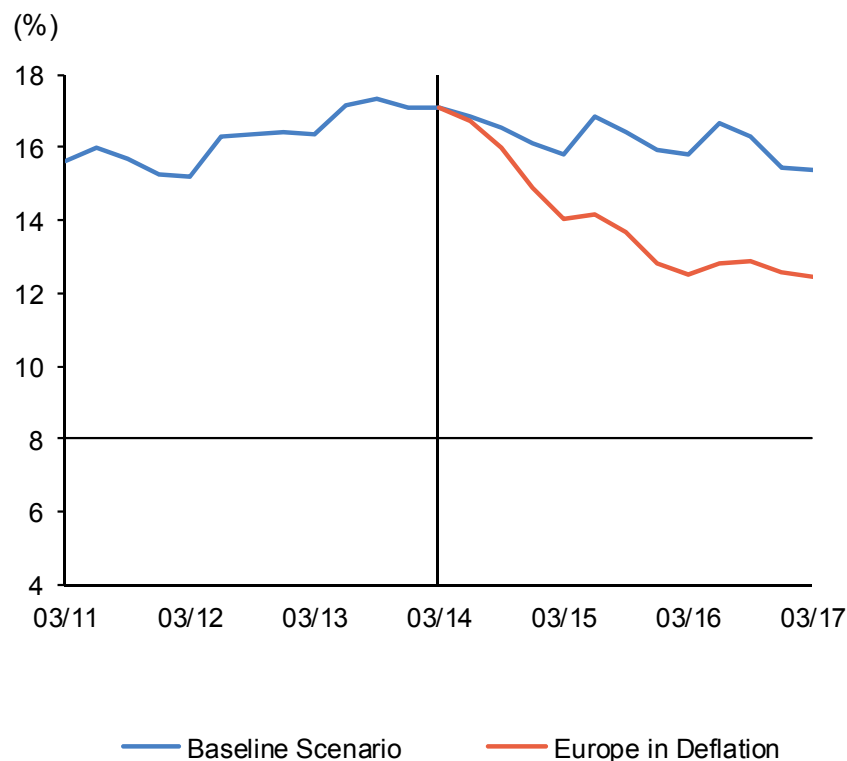
Source: MF CR, IMF, World Bank

## VI.

### Stress tests – May 2014

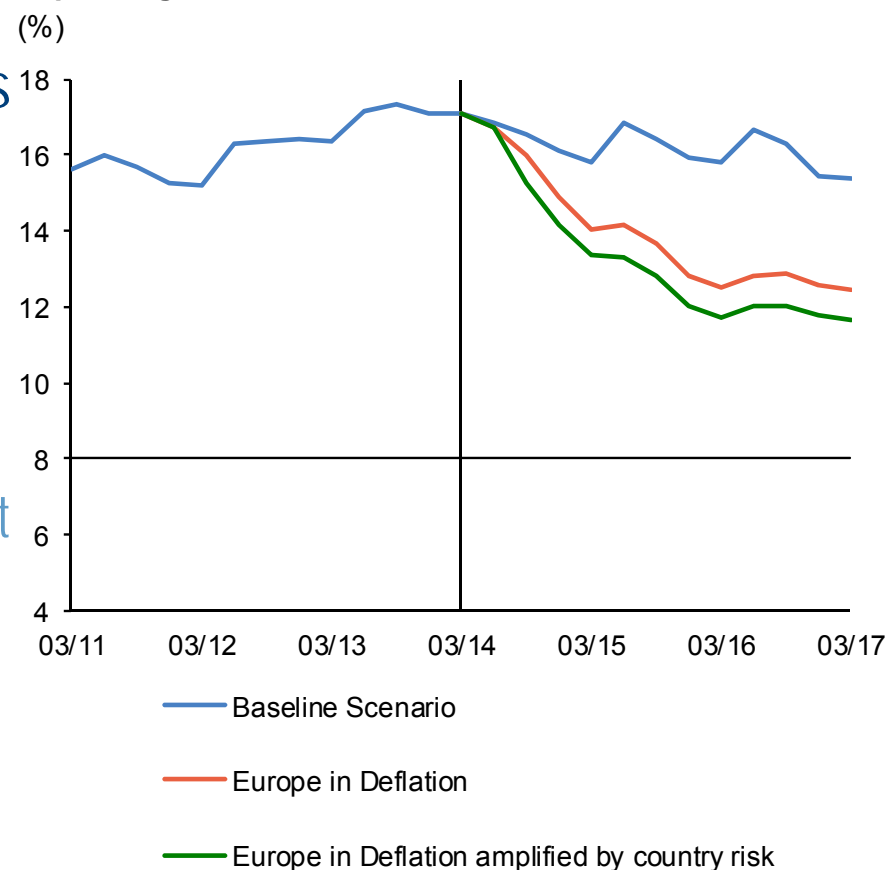
- In the *Baseline Scenario* two banks fall below the 8% level:
  - These are small banks with assets below 1% of the sector's total assets,
  - According to the stress tests, their business models are unsustainable.
- In the *Europe in Deflation* scenario 11 banks would fall below the 8% threshold:
  - They account for about 17% of the sector's assets.
  - To get their CARs back up to 8% they would need capital injections totalling around CZK 12 billion (0.3% of GDP).
  - The sector's total CAR does not drop below 12%.

Capital adequacy ratios of the banking sector depending on scenarios



- The stress scenario is as usual supplemented by sensitivity analyses.
- In the *Europe in Deflation* scenario, the impact of partial impairment of exposures to indebted EU countries (with debt exceeding 60% of GDP) was assessed.
  - The haircut is based on the average ratings of EU countries.
  - The additional losses amount to CZK 26 billion.
  - The capital injections rise to almost CZK 18 billion (0.5% of GDP).
  - The sector's total CAR remains above 11.5%.
- The banking sector as a whole remains resilient even in these highly stressful scenarios.

Capital adequacy ratios of the banking sector depending on scenarios



Source: CNB, CNB calculation

# Detailed results of bank stress tests

## Impact of the alternative scenarios on the banking sector

|   | <i>Baseline Scenario</i> |             |             | <i>Europe in Deflation</i> |             |             |
|---|--------------------------|-------------|-------------|----------------------------|-------------|-------------|
|   | 2014                     | 2015        | 2016        | 2014                       | 2015        | 2016        |
| <b>Expected credit losses (minus sign for losses)</b>           |                          |             |             |                            |             |             |
| CZK billions  | -21.0                    | -21.3       | -21.4       | -41.8                      | -79.2       | -65.2       |
| % of assets   | -0.4                     | -0.4        | -0.4        | -0.8                       | -1.6        | -1.4        |
| <b>Profit/loss from market risks</b>                            |                          |             |             |                            |             |             |
| CZK billions  | -0.4                     | -3.8        | -5.2        | -17.8                      | -2.9        | 0.1         |
| % of assets   | 0.0                      | -0.1        | -0.1        | -0.4                       | -0.1        | 0.0         |
| <b>Earnings for covering losses (adjusted operating profit)</b> |                          |             |             |                            |             |             |
| CZK billions  | 72.5                     | 68.7        | 66.5        | 61.3                       | 50.9        | 49.1        |
| % of assets   | 1.4                      | 1.2         | 1.1         | 1.2                        | 1.0         | 1.0         |
| <b>Pre-tax profit/loss</b>                                      |                          |             |             |                            |             |             |
| CZK billions  | 51.1                     | 43.6        | 39.9        | 1.6                        | -31.4       | -16.5       |
| % of assets   | 1.0                      | 0.8         | 0.7         | 0.0                        | -0.6        | -0.4        |
| <b>Capital adequacy ratio (CAR) at end of period in %</b>       |                          |             |             |                            |             |             |
| <b>CAR</b>  | <b>16.1</b>              | <b>16.2</b> | <b>15.5</b> | <b>14.9</b>                | <b>12.8</b> | <b>12.6</b> |
| <b>CAR Tier 1</b>   | <b>15.8</b>              | <b>15.9</b> | <b>15.3</b> | <b>14.6</b>                | <b>12.6</b> | <b>12.3</b> |
| <b>Capital injections</b>                                       |                          |             |             |                            |             |             |
| CZK billions  |                          | 0.3         |             |                            | 12.1        |             |
| % of GDP  |                          | 0.01        |             |                            | 0.3         |             |
| <b>No. of banks below 8% CAR</b>                                |                          | 2           |             |                            | 11          |             |

Source: CNB, CNB calculation

## Situation in credit union segment (1)

- The total assets of credit unions fell somewhat in 2013 as a result of the revocation of the licence of the largest credit union.
- Credit unions are maintaining relatively high deposit interest rates. This is creating need to grant risky loans at high interest rates.
- The credit union segment also shows a high concentration of loans provided.
  - Any repayment problems among important clients could jeopardise the stability of credit unions.

### Selected indicators of credit unions as compared to banks

(%; as of 31 December 2013)

|  | 2013          |       |
|--|---------------|-------|
|  | Credit unions | Banks |
| Average interest rate on client loans (1)    | 7.8           | 4.2   |
| Average interest rate on client deposits (2) | 3.0           | 0.8   |
| Client NPL ratio                             | 22.7          | 6.1   |
| Quick assets / total assets                  | 18.6          | 30.6  |
| Coverage of NPLs by provisions               | 16.6          | 51.6  |
| Tier 1 CAR                                   | 13.1          | 16.8  |
| RoE  | 0.3           | 16.9  |
| Share of sector in client deposits           | 0.9           | 99.1  |

Source: CNB

Note: The year-on-year comparison excludes Metropolitní spořitelní družstvo, whose licence was revoked in December 2013. WPB Capital credit union is included.

## Situation in credit union segment (2)

- The aggregate risk indicators are high and increased further in 2013.
  - The NPL ratio reached almost 23%.
  - Coverage of NPLs by provisions is very low.
  - The segment needs to considerably increase the prudence of its business and the quality of its risk management.
- An improvement requires an amendment of the relevant law.

### Selected indicators of credit unions as compared to banks

(%; as of 31 December 2013)

|  | 2013          |       |
|--|---------------|-------|
|  | Credit unions | Banks |
| Average interest rate on client loans (1)    | 7.8           | 4.2   |
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| Client NPL ratio                             | 22.7          | 6.1   |
| Quick assets / total assets                  | 18.6          | 30.6  |
| Coverage of NPLs by provisions               | 16.6          | 51.6  |
| Tier 1 CAR                                   | 13.1          | 16.8  |
| RoE  | 0.3           | 16.9  |
| Share of sector in client deposits           | 0.9           | 99.1  |

Source: CNB

Note: The year-on-year comparison excludes Metropolitní spořitelní družstvo, whose licence was revoked in December 2013. WPB Capital credit union is included.

# Stress test results for pension management companies

- The pension management companies (PMC) sector remains sensitive to a rise in yields on securities holdings.
  - The result is in line with the composition of the portfolios of transformed PMC funds, which are dominated by debt securities sensitive to interest rate changes.
- If yields rose sharply, it would probably have to increase capital.
  - The sector's capital remains positive, but capital injections (totalling CZK 2 billion) are necessary for some PMCs. PMCs are able to partly reduce risk using transfers between accounting categories (HTM).

## Results of the stress tests of transformed funds of PMCs

|   |              | <i>Baseline Scenario</i> | <i>Europe in Deflation</i> |
|---|--------------|--------------------------|----------------------------|
| Equity (as of beginning of period)  | CZK billions | 10.1                     | 10.1                       |
|   | % of assets  | 3.4                      | 3.4                        |
| Capital ratio (equity / capital requirements) (as of beginning of period) | %            | 175.5                    | 175.5                      |
|   |              |                          |                            |
| Losses arising from interest rate risk                                    | CZK billions | -0.2                     | -2.7                       |
|   | % of equity  | -1.7                     | -26.7                      |
| Gains / losses from changes in share and unit value                       | CZK billions | -0.2                     | -1.2                       |
|   | % of equity  | -2.3                     | -11.5                      |
| Exchange rate gains / losses  | CZK billions | -0.7                     | -2.2                       |
|   | % of equity  | -7.0                     | -21.8                      |
| Gains / losses from changes in property value                             | CZK billions | 0.0                      | -0.1                       |
|   | % of equity  | 0.1                      | -0.5                       |
| Impact of risks on equity   | CZK billions | -1.1                     | -6.1                       |
|   | % of assets  | -0.4                     | -2.1                       |
| Equity (as of end of period)  | CZK billions | 9.0                      | 3.9                        |
|   | % of assets  | 3.1                      | 1.3                        |
| Capital ratio (equity / capital requirements) (as of end of period)       | %            | 160.0                    | 69.0                       |
|   |              |                          |                            |
| Capital injection   | CZK billions | -                        | 2.2                        |

Source: CNB, CNB calculation

# Stress test results for insurance companies

- The insurance sector has sufficient capital.
- Credit risk and equity risk are still the main risks.
- The solvency ratio of most insurance companies would remain well above the minimum of 100% even in the event of a marked drop in capital market prices.
  - CZK 98 million in capital injections would be needed.

## Results of the insurance company stress tests

|  |              | Baseline Scenario | Europe in Deflation |
|--|--------------|-------------------|---------------------|
| Equity risk                                      | CZK billions | -0.77             | -7.10               |
|  | % of assets  | -0.20             | -1.80               |
| Real estate risk                                 | CZK billions | 0.22              | -0.66               |
|  | % of assets  | 0.06              | -0.17               |
| Exchange rate risk                               | CZK billions | -0.05             | -0.04               |
|  | % of assets  | -0.01             | -0.01               |
| Interest rate risk                               | CZK billions | 1.04              | -6.64               |
|  | % of assets  | 0.26              | -1.68               |
| Credit spread risk                               | CZK billions | 0.05              | -1.23               |
|  | % of assets  | 0.01              | -0.31               |
| Risk of fall in GB prices                        | CZK billions | -0.38             | -1.57               |
|  | % of assets  | -0.10             | -0.40               |
| Premium risk                                     | CZK billions | 0.00              | -1.13               |
|  | % of assets  | 0.00              | -0.29               |
| Impact of risks on ASM                           | CZK billions | 0.12              | -18.38              |
|  | % of assets  | 0.03              | -4.65               |
| Initial profit/loss before application of shocks | CZK billions | 14.43             | 14.43               |
|  | % of assets  | 3.65              | 3.65                |
| Planned dividends for payment in 2014            | CZK billions | -10.67            | -10.67              |
|  | % of assets  | -2.70             | -2.70               |
| Other impacts (tax)                              | CZK billions | 3.34              | 3.85                |
|  | % of assets  | 0.85              | 0.97                |
| ASM as of end of 2013                            | CZK billions | 59.93             | 59.93               |
|  | % of assets  | 15.16             | 15.16               |
| ASM as of end of 2014                            | CZK billions | 63.39             | 45.40               |
|  | % of assets  | 16.04             | 11.49               |
| Solvency ratio                                   | 2013         | 311%              | 311%                |
|  | 2014         | 329%              | 236%                |

Source: CNB, CNB calculation



Thank you for your attention

## Financial Stability Reports:

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