

Macprudential indicators of the financial sector

June 2016

Macroeconomic risk indicators 3

1 Manufacturing Purchasing Managers' Index (PMI) in selected economies	3
2 Services Purchasing Managers' Index (PMI) in selected economies.....	3
3 Consumer confidence indicators in the United States.....	3
4 Economic sentiment indicators in the euro area.....	3
5 Unemployment rates in selected economies	3
6 Consumer price inflation in selected economies	3
7 Industrial production indices in selected economies	4
8 Retail sales indices in selected economies	4
9 General government balances of EU countries in 2015	4
10 Gross government debt of EU countries in the first quarter of 2016	4

Financial market risk indicators..... 4

11 Price commodity indices	4
12 Exchange rate indices	4
13 Equity indices	5
14 Share price indices of the parent institutions of the five largest domestic banks.....	5
15 Yield curve slopes in selected economies	5
16 Volatility of equity indices	5
17 CDS spread indices	5
18 CDSs of the parent institutions of the largest Slovak banks	5
19 Three-month rates and the OIS spread	6
20 Inflation-linked swap prices	6
21 Credit spreads on 5-year government bonds issued by lower-rated countries	6
22 Credit spreads on 5-year government bonds issued by selected central European countries and Germany.....	6

Corporate credit risk indicators 6

23 Exports and the business environment	6
24 Exports and corporate sales	6
25 Sales in selected sectors compared with their level for the period 06/2007 to 06/2008 ...	7
26 Corporate loans and sales	7
27 Interest rate spreads on new loans to NFCs	7
28 Non-performing loans and default rates	7

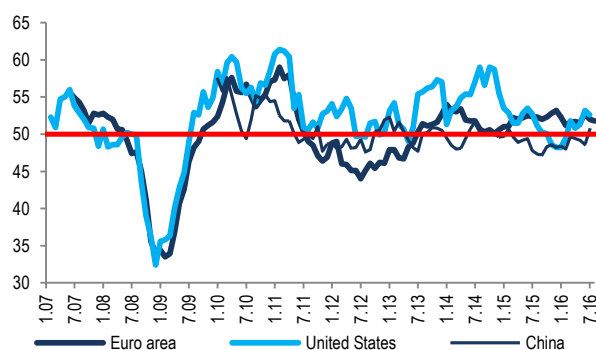
29 Loans at risk (%)	7
30 Debt-service burden and its components.....	7
31 Commercial real estate: price and vacancy rates in the office segment in BA	8
32 Commercial real estate: sales in the residential segment (new flats) in BA	8
33 Comparison of corporate balance sheets and sales	8
34 Liabilities of non-financial corporations (%)	8
Household credit risk indicators	8
35 Household indebtedness in Slovakia and in selected countries	8
36 Changes in household financial assets	8
37 Number of unemployed by income category	9
38 Employment in selected sectors - index	9
39 Expected employment in selected sectors - index.....	9
40 Real wages in selected sectors - index	9
41 The consumer confidence index and its components	9
42 Non-performing loans to households	9
43 Loan-to-value (LTV) ratio.....	10
44 Housing affordability index.....	10
Market risk and liquidity risk indicators.....	10
45 Value at Risk for investments in different types of financial instruments	10
46 Loan-to-deposit ratio	11
47 Liquid asset ratio	11

General note:

'Index: 31 December 2015 = 1' means that the given index was normalized so that its value on the specified date (31 December 2015) was equal to 1.

Macroeconomic risk indicators

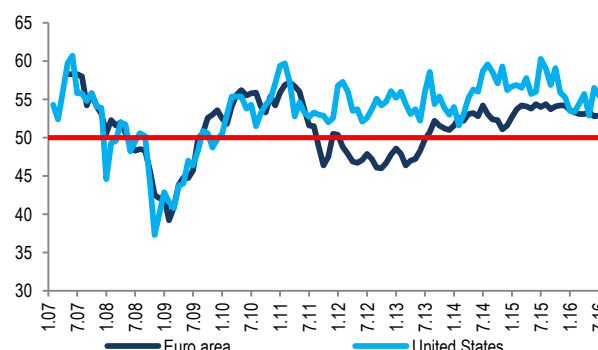
1 Manufacturing Purchasing Managers' Index (PMI) in selected economies



Source: Bloomberg.

Note: PMI (Purchasing Managers' Index) is an indicator of the economic health of the manufacturing or service sector: an index value of more than 50 represents expansion, while a value of below 50 represents contraction.

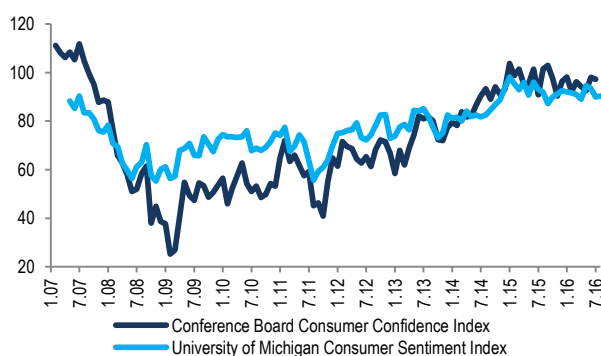
2 Services Purchasing Managers' Index (PMI) in selected economies



Source: Bloomberg.

Note: PMI (Purchasing Managers' Index) is an indicator of the economic health of the manufacturing or service sector: an index value of more than 50 represents expansion, while a value of below 50 represents contraction.

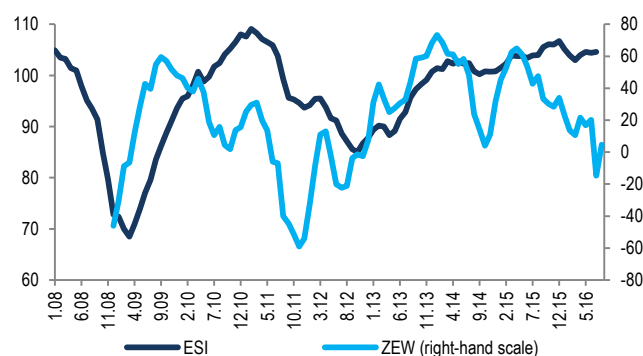
3 Consumer confidence indicators in the United States



Source: Bloomberg.

Note: The chart refers to US consumer confidence indices produced by two different institutions.

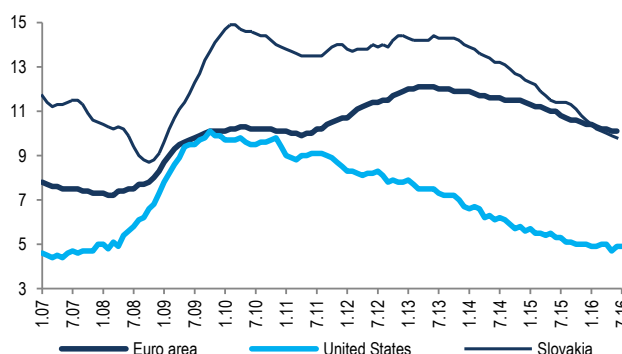
4 Economic sentiment indicators in the euro area



Source: Bloomberg.

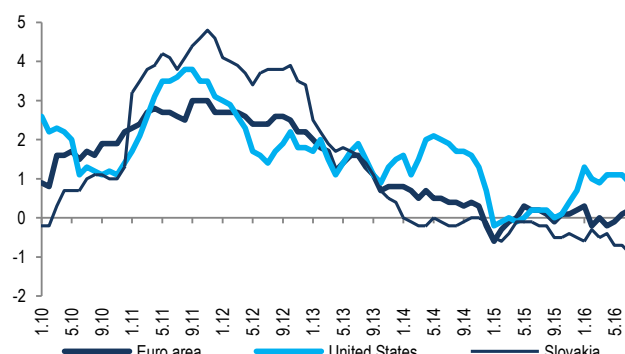
Notes: ESI is the Economic Sentiment Indicator compiled by the European Commission. ZEW represents the economic sentiment indicator compiled by a private company ZEW (Zentrum für Europäische Wirtschaftsforschung).

5 Unemployment rates in selected economies (%)



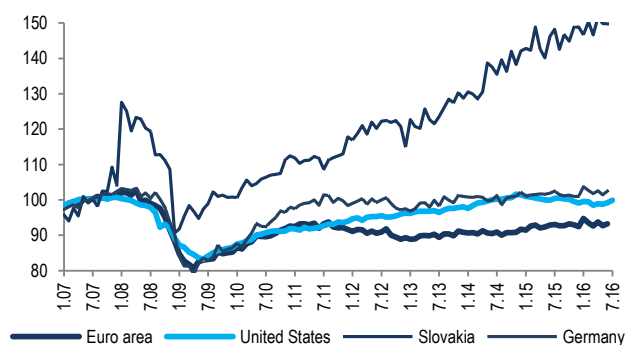
Source: Eurostat, Bureau of Labor Statistics.
Note: Seasonally adjusted.

6 Consumer price inflation in selected economies (%)



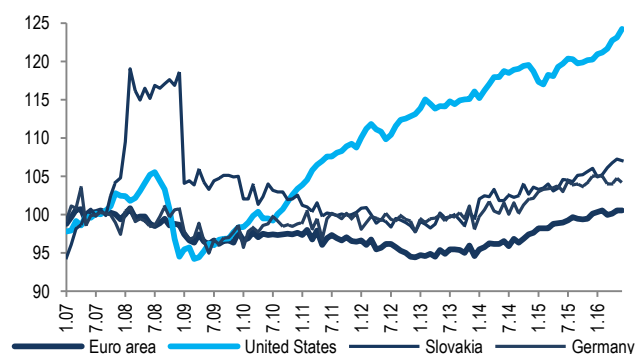
Source: Eurostat, Bureau of Labor Statistics.
Note: Year-on-year percentage changes in the consumer price indices.

7 Industrial production indices in selected economies



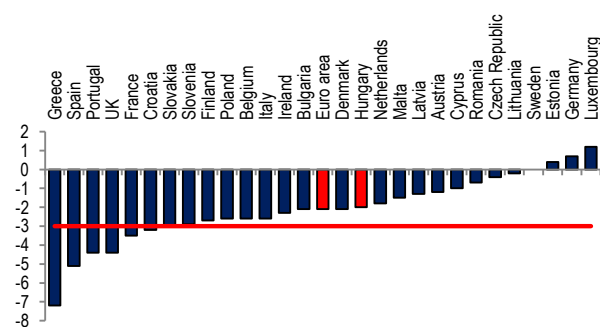
Source: Eurostat, US Federal Reserve.
Notes: Rebalanced (average 2007 = 100).
Seasonally adjusted.

8 Retail sales indices in selected economies



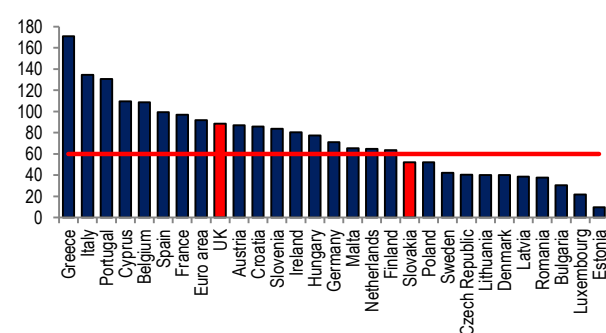
Source: Eurostat, US Department of Commerce.
Notes: Rebalanced (average 2007 = 100).
Seasonally adjusted.

9 General government balances of EU countries in 2015 (%)



Source: Eurostat.
Note: Balance is expressed as a percentage of GDP.

10 Gross government debt of EU countries in the first quarter of 2016 (%)



Source: Eurostat.
Note: Gross government debt is expressed as a percentage of shares of GDP.

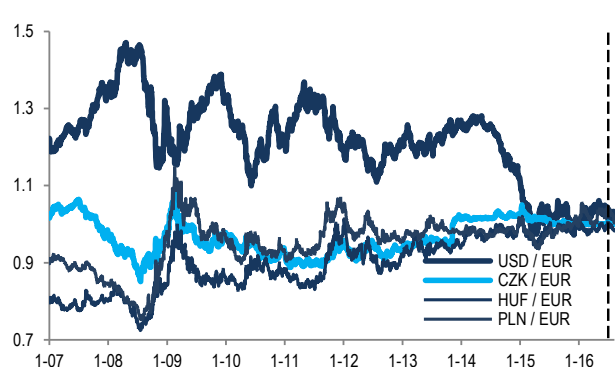
Financial market risk indicators

11 Price commodity indices (31. 12. 2015 = 1)



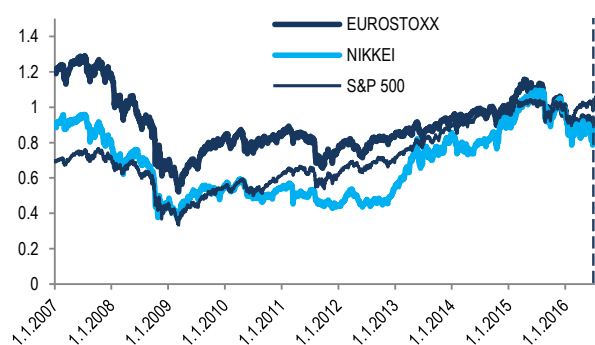
Source: Bloomberg, NBS.

12 Exchange rate indices (31. 12. 2015 = 1)



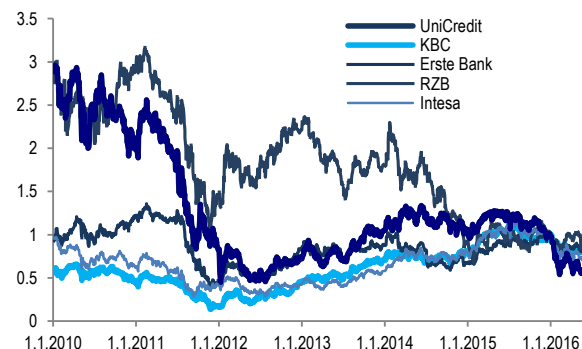
Source: Bloomberg, NBS.

13 Equity indices (31. 12. 2015 = 1)



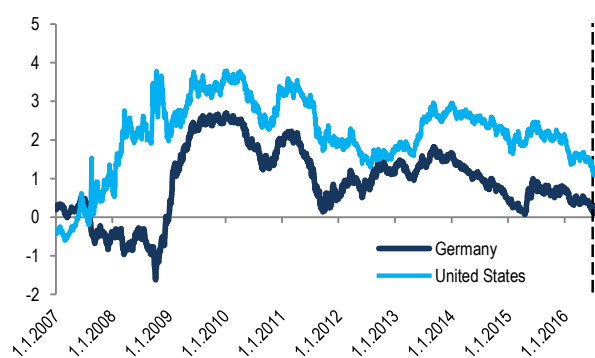
Source: Bloomberg, NBS.

14 Share price indices of the parent institutions of the five largest domestic banks (31. 12. 2015 = 1)



Source: Bloomberg, NBS.

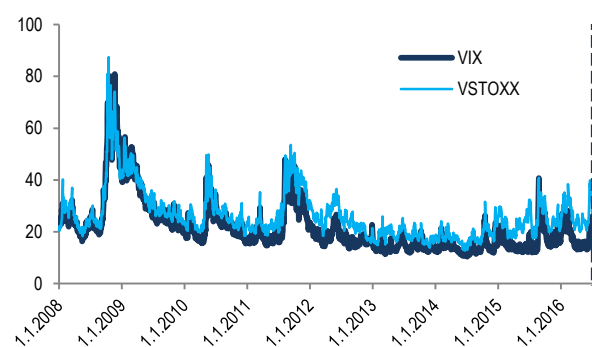
15 Yield curve slopes in selected economies (p. p.)



Source: Bloomberg, NBS.

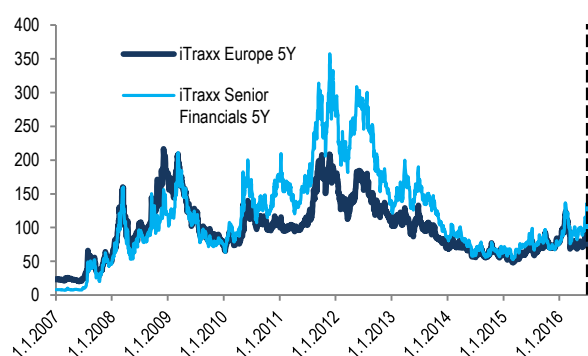
Notes: The yield curve slope is expressed as the difference between the yield to maturity on 10-year and 3-month government bonds.
p. p. – percentage points

16 Volatility of equity indices



Source: Bloomberg.

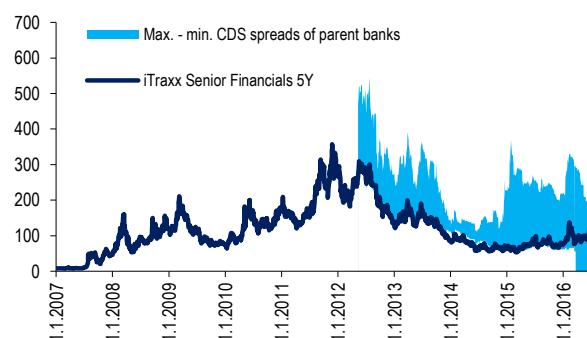
17 CDS spread indices (b. p.)



Source: Bloomberg, NBS.

Note: b. p. – basis points

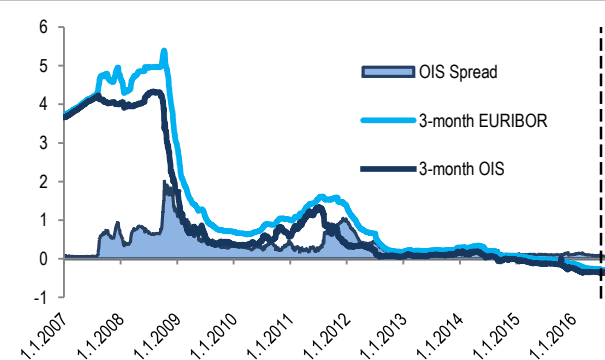
18 CDSs of the parent institutions of the largest Slovak banks (b. p.)



Source: Bloomberg, NBS.

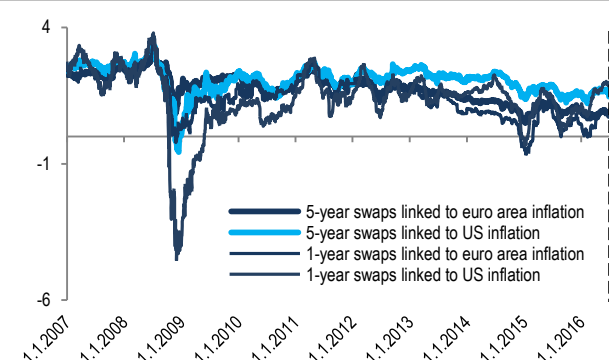
Note: b. p. – basis points

19 Three-month rates and the OIS spread (% , p. p.)



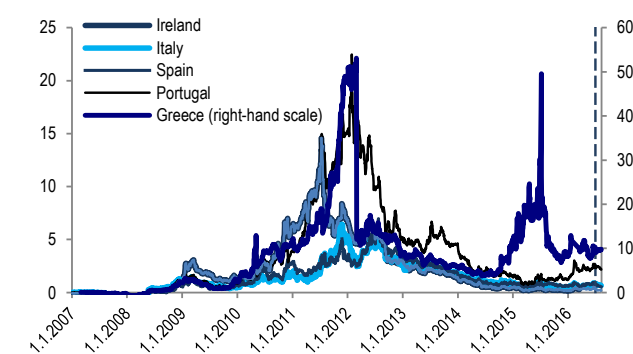
Source: Bloomberg, NBS.
Note: p.p. – percentage points.

20 Inflation-linked swap prices (p. p.)



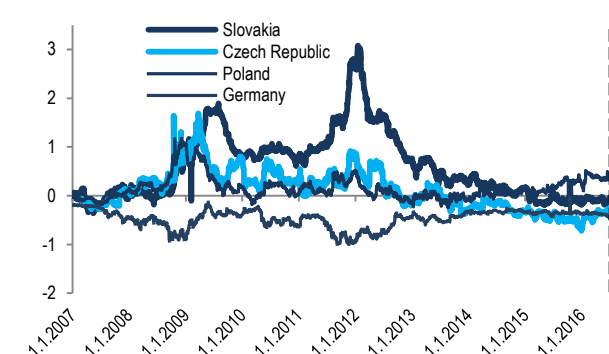
Source: Bloomberg, NBS.
Notes: Inflation-linked swaps are swap transactions in which one counterparty pays a fixed rate (a swap price) and the other pays a rate corresponding to the return on a selected price index. The inflation-linked swap price is calculated on a non-coupon basis.
p.p. – percentage points.

21 Credit spreads on 5-year government bonds issued by lower-rated countries (p. p.)



Source: Bloomberg, NBS.
Notes: The vertical scales shows differences between the yield on 5-year bonds issued by the given countries and 5-year OIS rates, representing a 5-year interest rate on high-rated bonds. p. p. – percentage points.

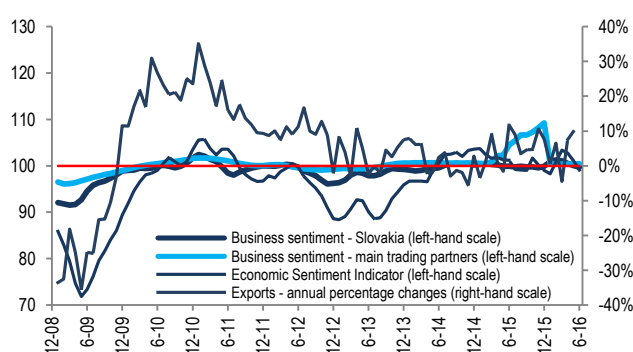
22 Credit spreads on 5-year government bonds issued by selected central European countries and Germany (p. p.)



Source: Bloomberg, NBS.
Notes: The Chart shows the difference between yields on 5-year government bonds denominated in the domestic currencies of the given countries and 5-year swap rates for the respective currencies. p. p. – percentage points.

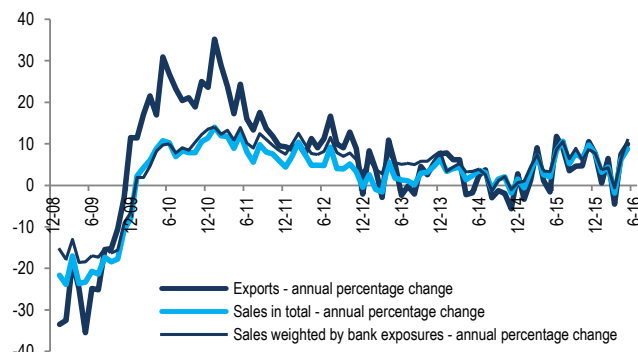
Corporate credit risk indicators

23 Exports and the business environment



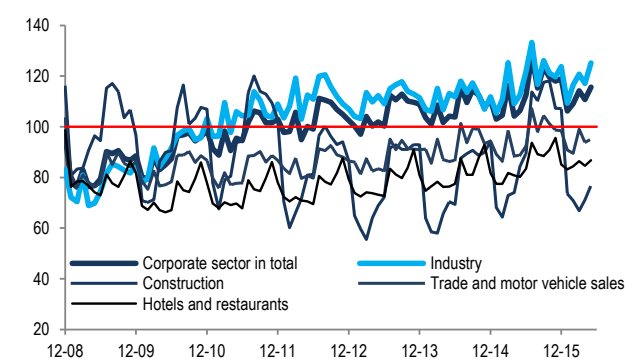
Source: NBS, OECD, Statistical Office of the SR.

24 Exports and corporate sales (%)



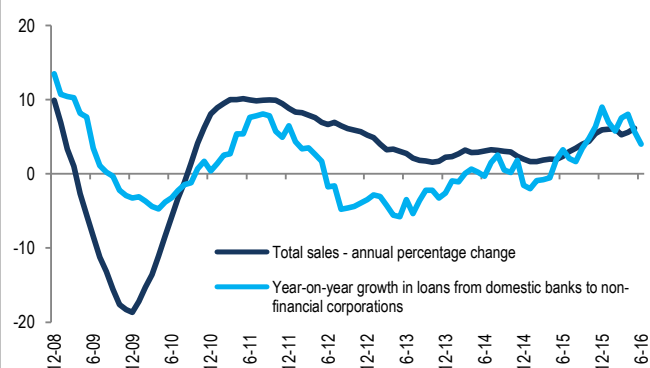
Source: Ministry of Economy of the SR, NBS, OECD, Statistical Office of the SR.

25 Sales in selected sectors compared with their level for the period 06/2007 to 06/2008 (%)



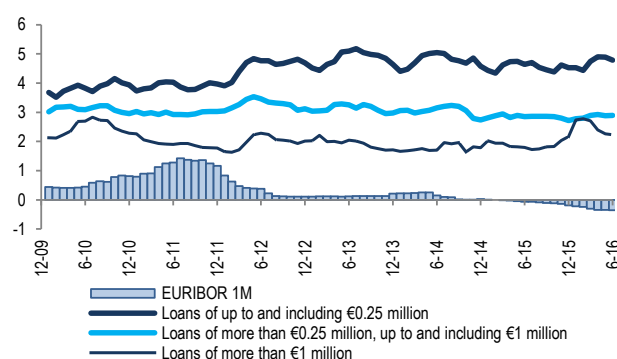
Source: Statistical Office of the SR.

26 Corporate loans and sales (%)



Source: NBS, Statistical Office of the SR.

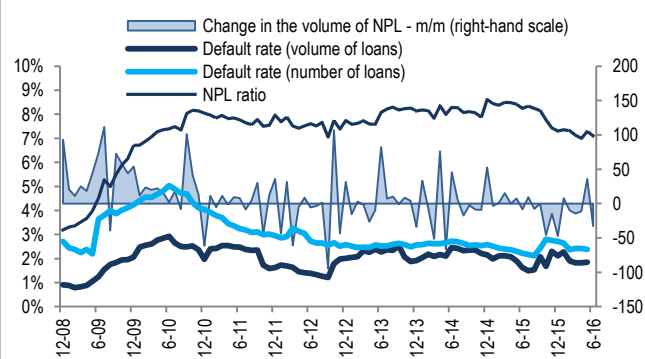
27 Interest rate spreads on new loans to NFCs (%)



Source: NBS, European Banking Federation.

Note: The spread is defined as the difference between the monthly EURIBOR rate and the average rate on new loans in the respective category.

28 Non-performing loans and default rates

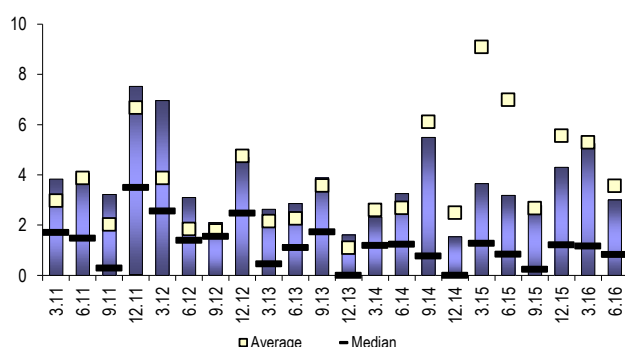


Source: NBS.

Notes: Data on the right-hand scale are in EUR mil.

Default rates refer to ratio of the number/volume of loans re-categorised as defaulted to the number/volume of non-defaulted loans at the beginning of the period under review.

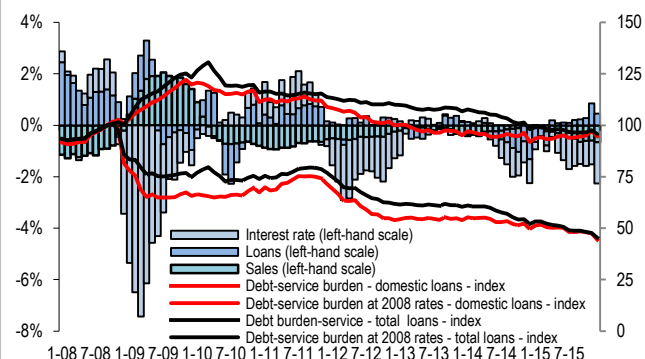
29 Loans at risk (%)



Source: NBS.

Note: The chart shows the interquartile range.

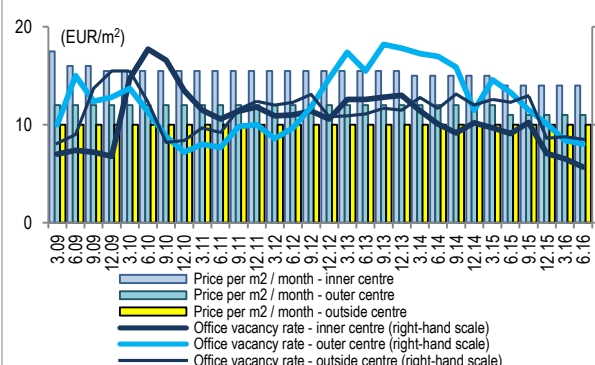
30 Debt-service burden and its components



Source: NBS, SO SR.

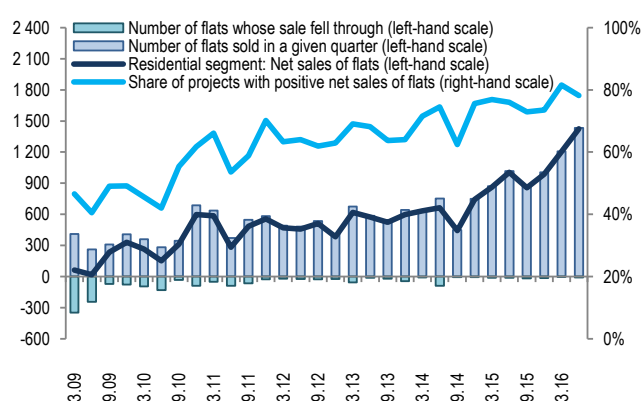
Note: Data on the right-hand scale are in EUR mil.

31 Commercial real estate: price and vacancy rates in the office segment in BA



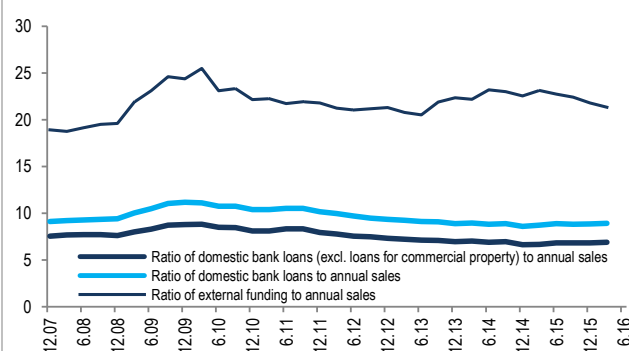
Source: CBRE, NBS.
Note: BA - Bratislava.

32 Commercial real estate: sales in the residential segment (new flats) in BA



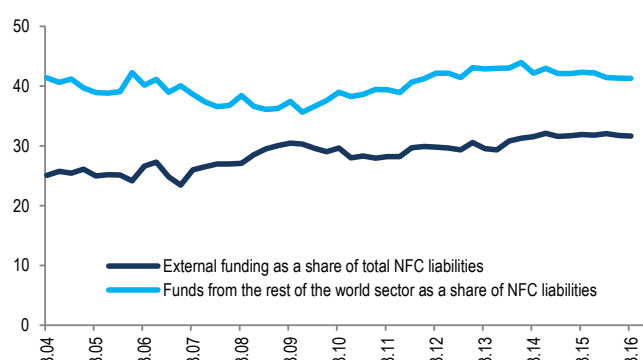
Source: Lexxus, NBS.
Note: BA - Bratislava.

33 Comparison of corporate balance sheets and sales (%)



Source: NBS, Statistical Office of the SR.

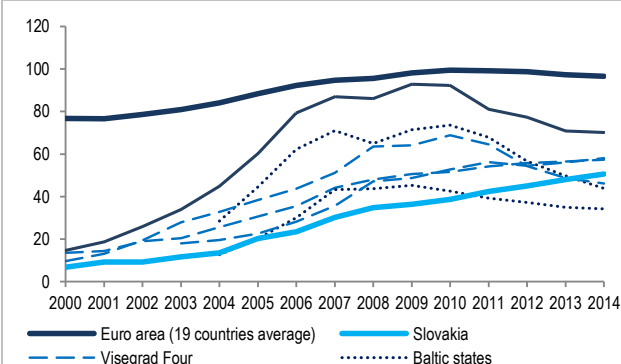
34 Liabilities of non-financial corporations (%)



Source: NBS.
Note: NFC - non-financial corporations.

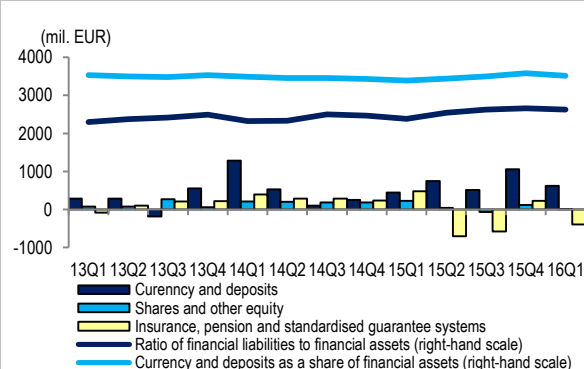
Household credit risk indicators

35 Household indebtedness in Slovakia and in selected countries (%)



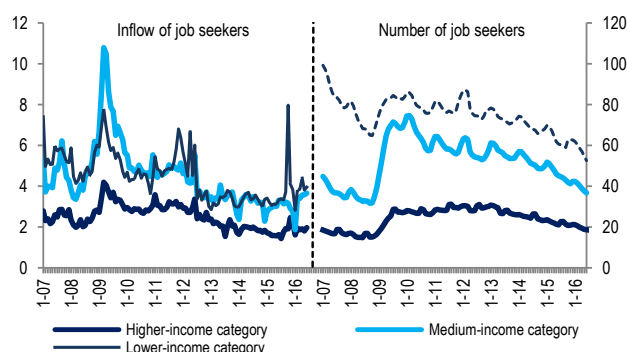
Source: Eurostat.
Note: The indicator is calculated as the ratio of households' total debt to their disposable income.

36 Changes in household financial assets



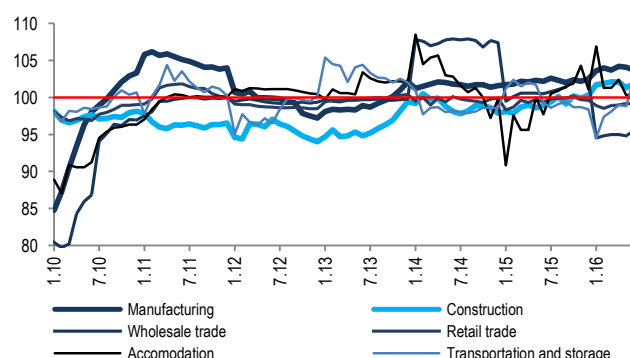
Source: NBS.
Notes: Data on the left-hand scale refer to quarter-on-quarter changes. Owing to a methodological change, historical data are not available as yet.

37 Number of unemployed by income category



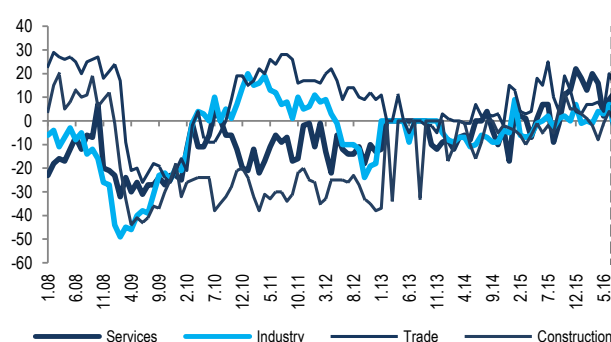
Source: Central Office of Labour, Social Affairs and Family of the SR.
Notes: Left-hand and right-hand scales: Numbers of job seekers are in thousands. Household income categories – categorisation based on the KZAM employment classification and KZAM income data; it consists of three categories: higher-income category (income of over €800 per month) – legislators, senior officials and managers, scientists, professionals, technicians, health professionals, and teaching professionals; middle-income category (income between €600 and €800 per month) – office workers, craft and skilled workers, processors, and plant and machinery operators; lower-income category (income of up to €600) – service and retail workers, agricultural and forestry workers, auxiliary and unskilled workers.

38 Employment in selected sectors - index



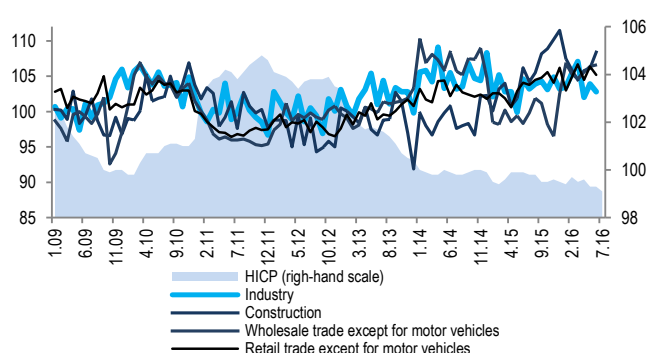
Source: Statistical Office of the SR.
Note: Year-on-year changes.

39 Expected employment in selected sectors - index



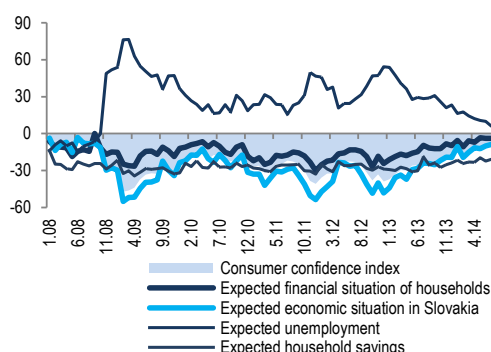
Source: Statistical Office of the SR.

40 Real wages in selected sectors - index



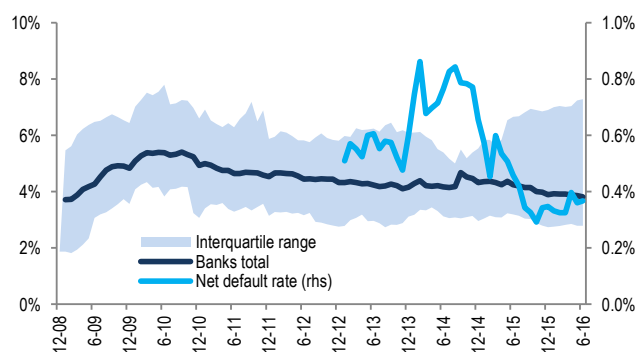
Source: Statistical Office of the SR.
Note: HICP - Harmonised Index of Consumer Prices, change on the same period of the previous year.

41 The consumer confidence index and its components



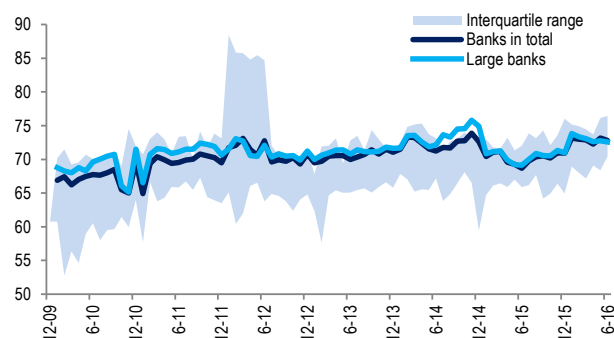
Source: Statistical Office of the SR.

42 Non-performing loans to households



Source: NBS.
Note: Left-hand scale: ratio of non-performing household loans to total household loans. The net default rate denotes the net change in the amount of non-performing loans over a 12-month period as a share of the outstanding amount of loans at the beginning of the period. The numerator is adjusted for the effect of loan write-offs and sell-offs. Data on net default rate is available only from 2013.

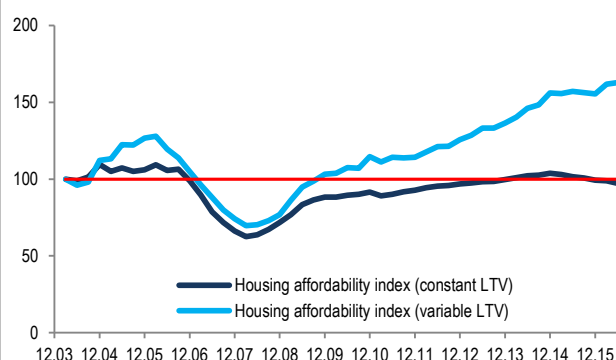
43 Loan-to-value (LTV) ratio (%)



Source: NBS.

Note: Loan-to-value ratio is the loan value divided by the value of the loan collateral.

44 Housing affordability index

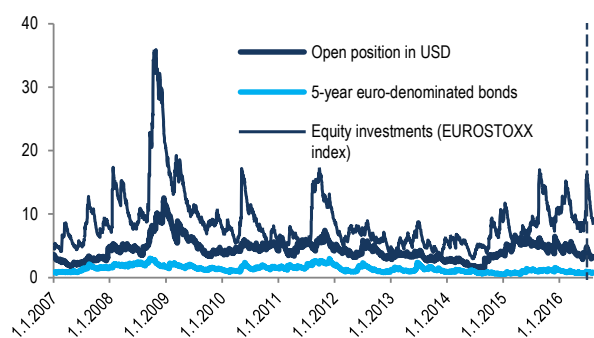


Source: NBS, Statistical Office of the SR.

Notes: Housing affordability index is an index representing the ratio of disposable income to loan instalments. The calculation of disposable income takes into account the average wage and average expenditure of households; the calculation of the instalment amount takes into account the average apartment price, average interest rate, average maturity, and a constant LTV ratio (75%). The calculation methodology for the housing affordability index is set out in the following paper: Rychtárik, Š., Krčmár, M. (2011), "Vývoj na trhu úverov na bývanie a jeho interpretácia" (Developments in the housing loan market and their interpretation), Nehnuteľnosti a bývanie 2010 (Real Estate and Housing), Vol. No 2, Bratislava, 2010.

Market risk and liquidity risk indicators

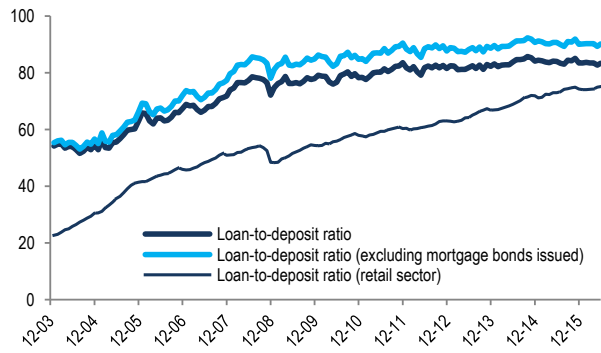
45 Value at Risk for investments in different types of financial instruments (%)



Source: Bloomberg, NBS.

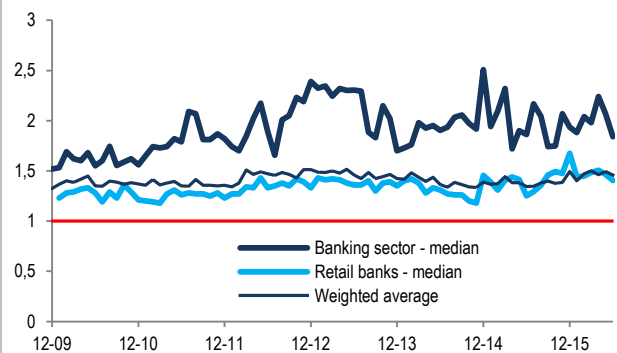
Notes: The data represent the loss (as a percentage of the given investment) that should not be exceeded over a period of 10 days at a confidence level of 99%. This loss was determined on the basis of a risk factor volatility calculation, using exponentially weighted moving averages.

46 Loan-to-deposit ratio



Source: NBS.

47 Liquid asset ratio



Source: NBS.