



DIRECTORATE MONETARY POLICY AND FINANCIAL MARKET ANALYSIS  
FINANCIAL MARKET ANALYSIS DEPARTMENT

**CHART-PACK ON RECENT  
ECONOMIC AND FINANCIAL  
MARKET DEVELOPMENTS**

**2018**

NOVEMBER



# **Chart-pack on recent economic and financial market developments \***

16 November 2018

As of the 30th of June, 2005 the Magyar Nemzeti Bank (the central bank of Hungary) publishes a comprehensive chart-pack about the latest information in financial markets and the macro-economy. Our aim is to provide analysts and the public with a frequently updated, easy-to-use, clear-cut data set, in order to promote better knowledge and understanding of the current economic and financial market situation. The updated chart-pack is published on the day of each rate-setting meeting at 5 pm.

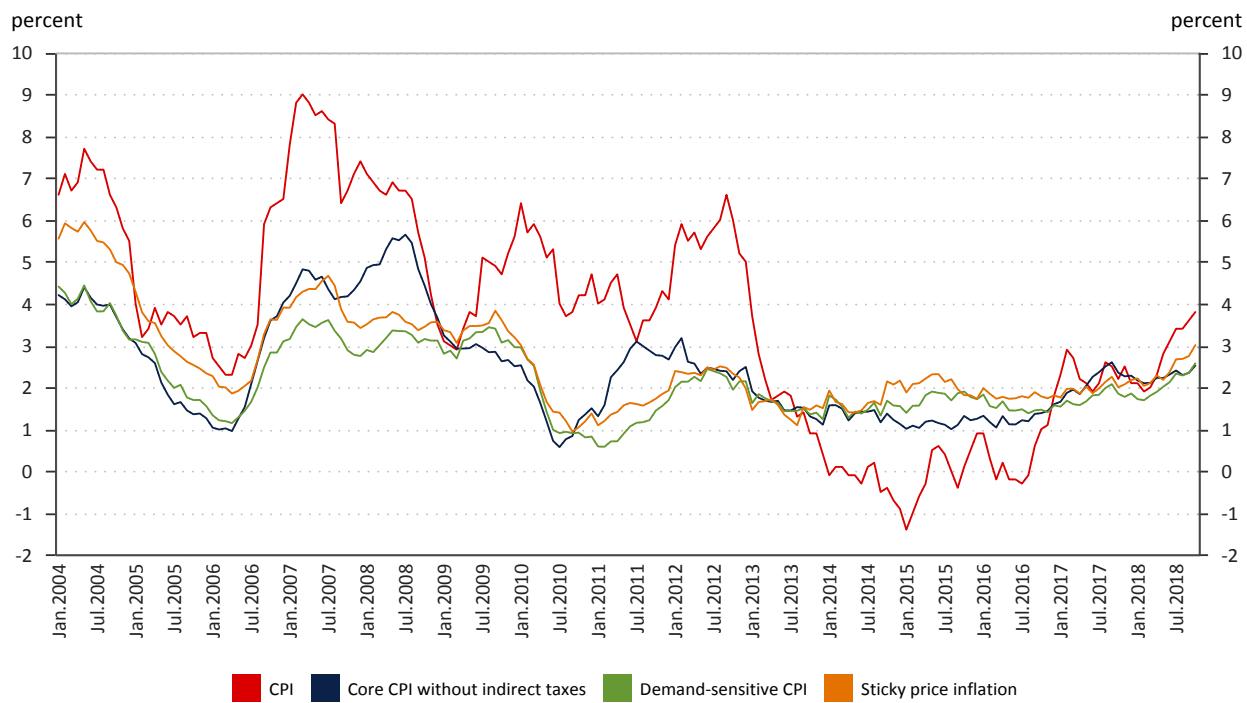
Earlier versions of the chart-pack are accessible on the website of Magyar Nemzeti Bank via the following address.

<http://www.mnb.hu/en/publications/studies-publications-statistics/chart-pack-on-recent-economic-and-financial-market-developments>

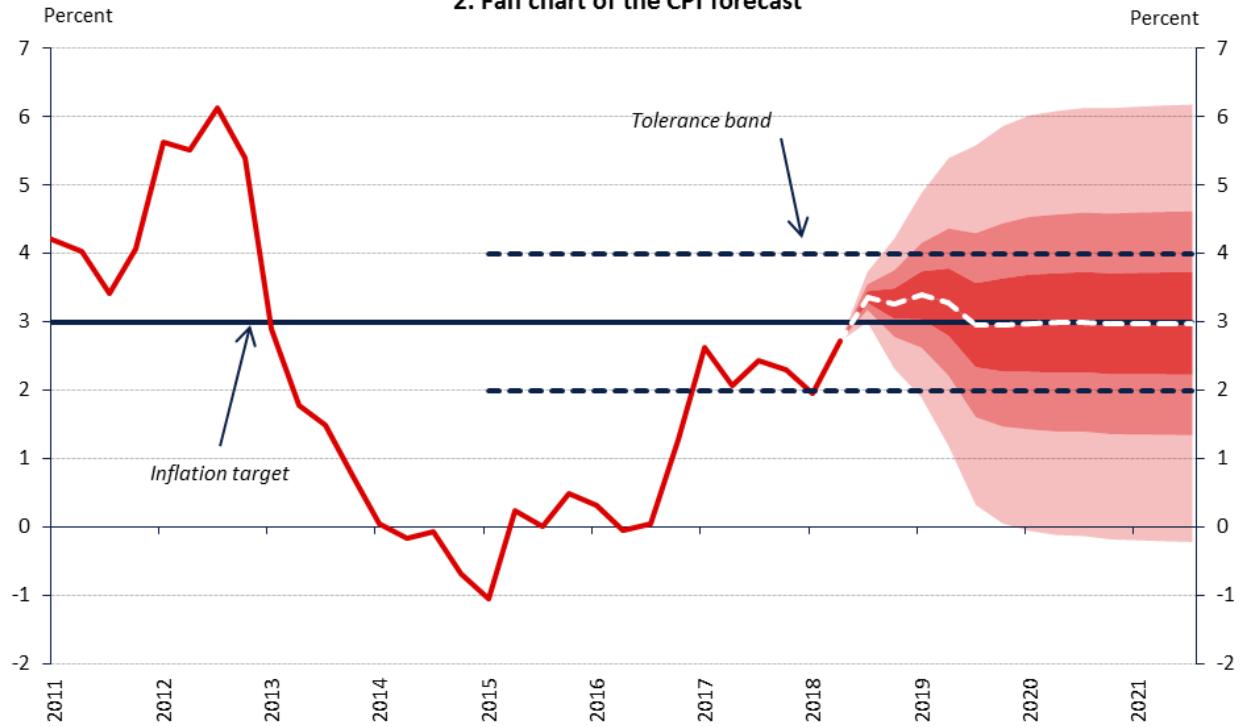
Questions and comments are welcome, and should be addressed to [info@mnb.hu](mailto:info@mnb.hu).

\* The data sources of this document, in whole or in part, do not fall within the scope of Act XLVI of 1993 on statistics, therefore the data contained in the tables and charts are not to be considered as official statistical data. Magyar Nemzeti Bank excludes all liability for any damage caused by the usage of the herein published non-official statistical data.

### 1. Development of inflation and underlying inflation indicators



### 2. Fan chart of the CPI forecast



Source: MNB, HSCO. Note: the fan chart represent the uncertainty around the central projection. Overall, the coloured area represents a 90 per cent probability. The central area containing the central projection for the consumer price index illustrated by the dotted line (as the mode of distribution) refers to 30 per cent of the probability. The horizontal lines show the value of the announced inflation target and the tolerance band.

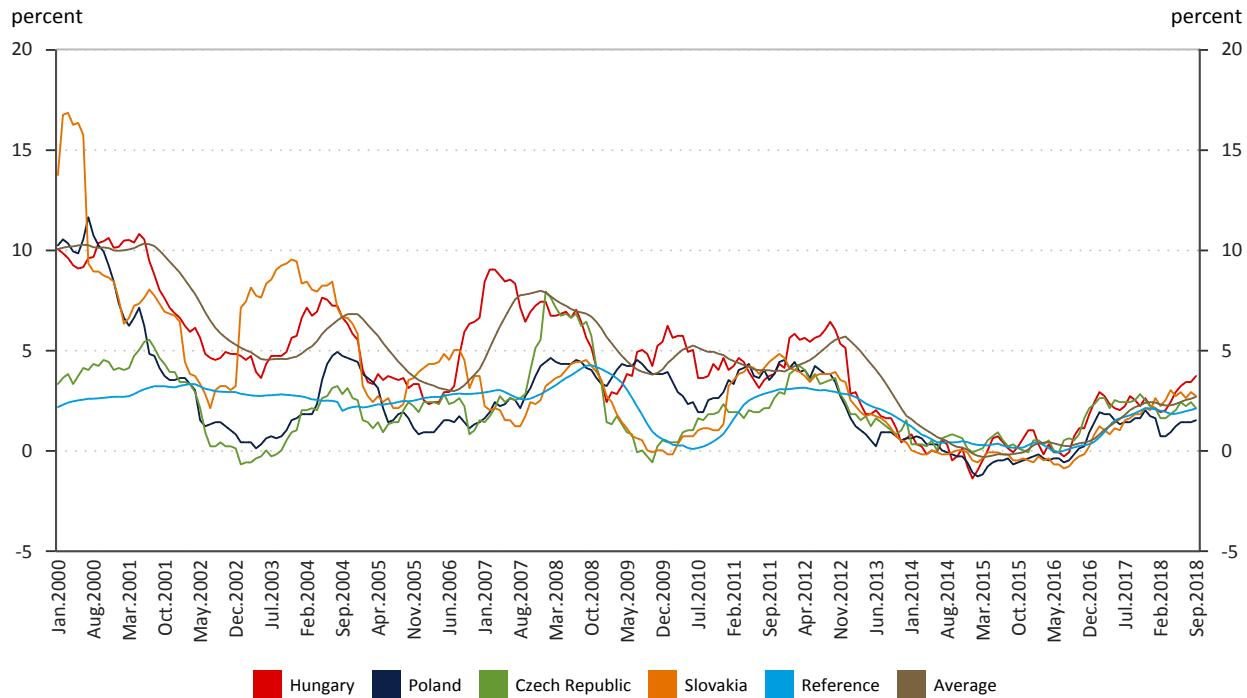
### 3. Decomposition of the Consumer Price Index

	Weight 2018	JUL 2018	AUG 2018	SEP 2018	OCT 2018
Consumer Price Index	100.0	3.4	3.4	3.6	3.8
Thereof:					
Unprocessed food	6.1	4.8	8.1	11.0	10.2
Processed food	12.7	2.7	2.3	2.4	2.3
Manufactured goods	23.4	1.1	1.0	1.0	1.7
Market services	23.4	2.4	2.5	2.5	2.5
Non-regulated household energy	1.0	11.0	11.9	11.3	10.1
Alcohol, tobacco	9.8	5.3	4.6	5.1	5.1
Gasoline prices	7.5	17.9	16.4	14.9	16.2
Regulated prices	16.1	-0.1	0.0	0.5	0.6
Core Consumer Price Index	69.3	2.5	2.3	2.4	2.6
CPI without tax changes	100.0	3.8	3.8	4.0	4.2

Source: HCSO, MNB decomposition

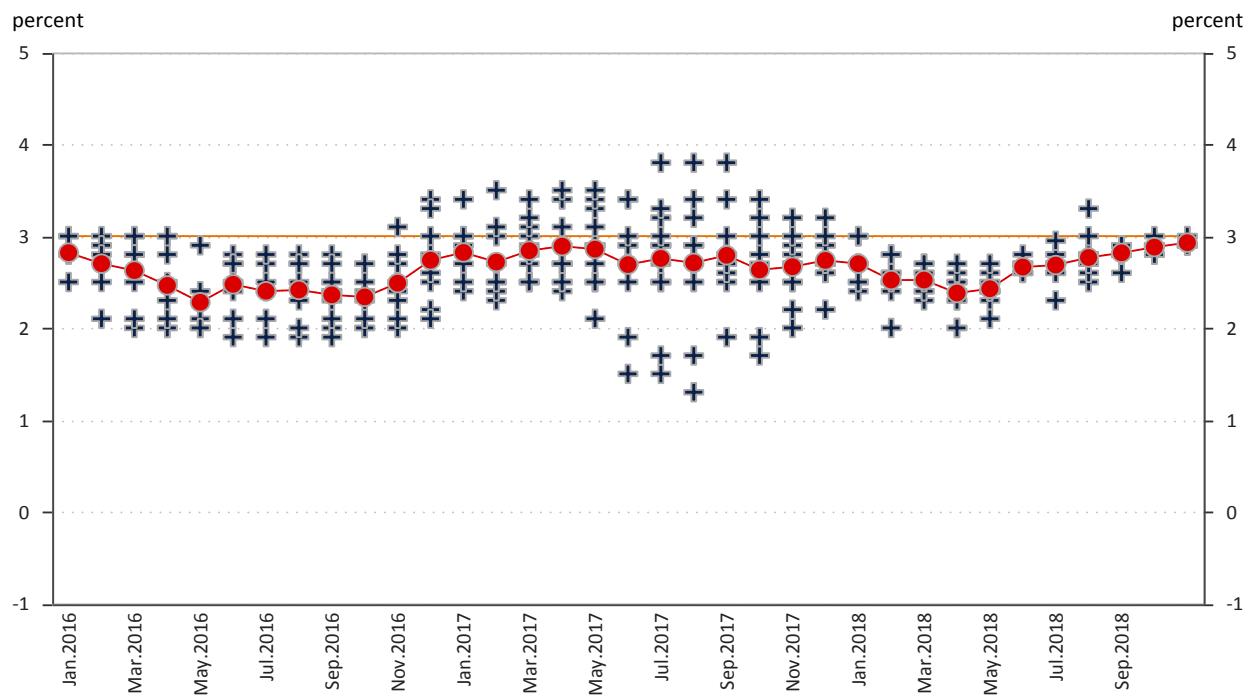
Notes: annual growth rates (%)

### 4. Harmonised index of consumer prices



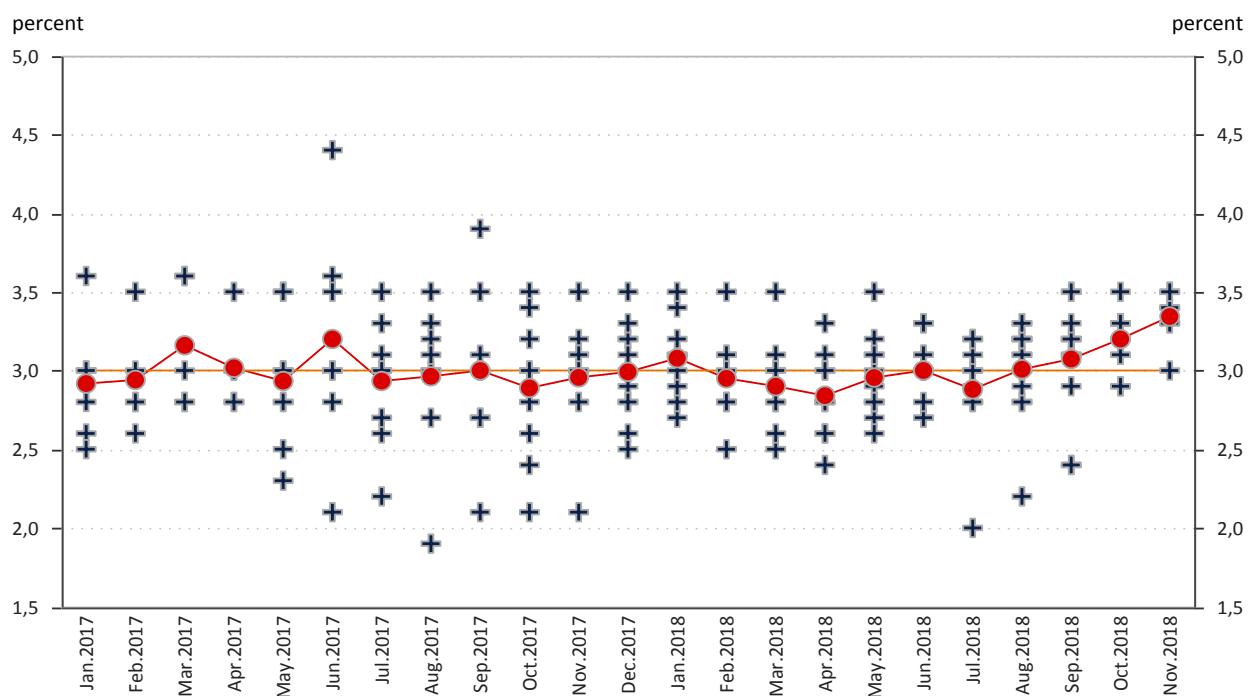
Source: Eurostat

Note: annual growth rate.

**5. Market expectations for the inflation rate in current year**

Source: Thomson Reuters

Note: the red continuous line represents the trimmed mean calculated by cutting off the lowest and the highest value, the brown line shows the inflation target of MNB.

**6. Market expectations for the inflation rate next year**

Source: Thomson Reuters

Note: the red continuous line represents the trimmed mean calculated by cutting off the lowest and the highest value, the brown line shows the inflation target of MNB.

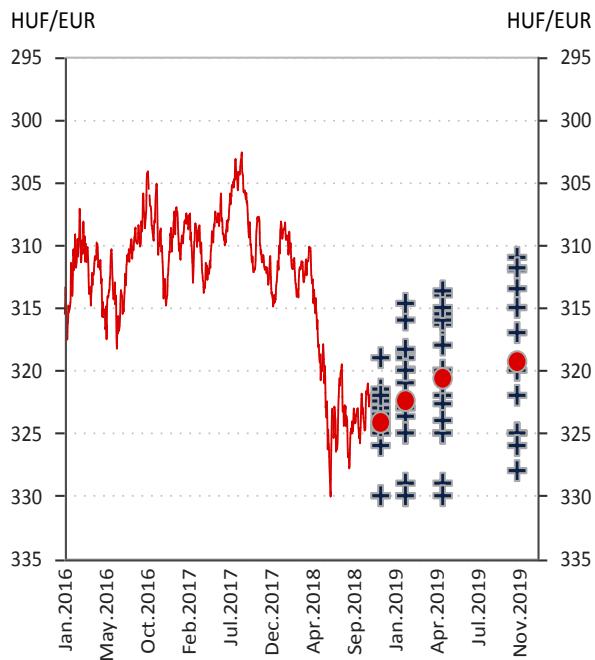
### 7. Expectations for HUF/EUR exchange rate (Bloomberg collection)



Source: Bloomberg

Note: Bloomberg collection; based on new FX forecasts. 2-weeks moving average, reverse scale.

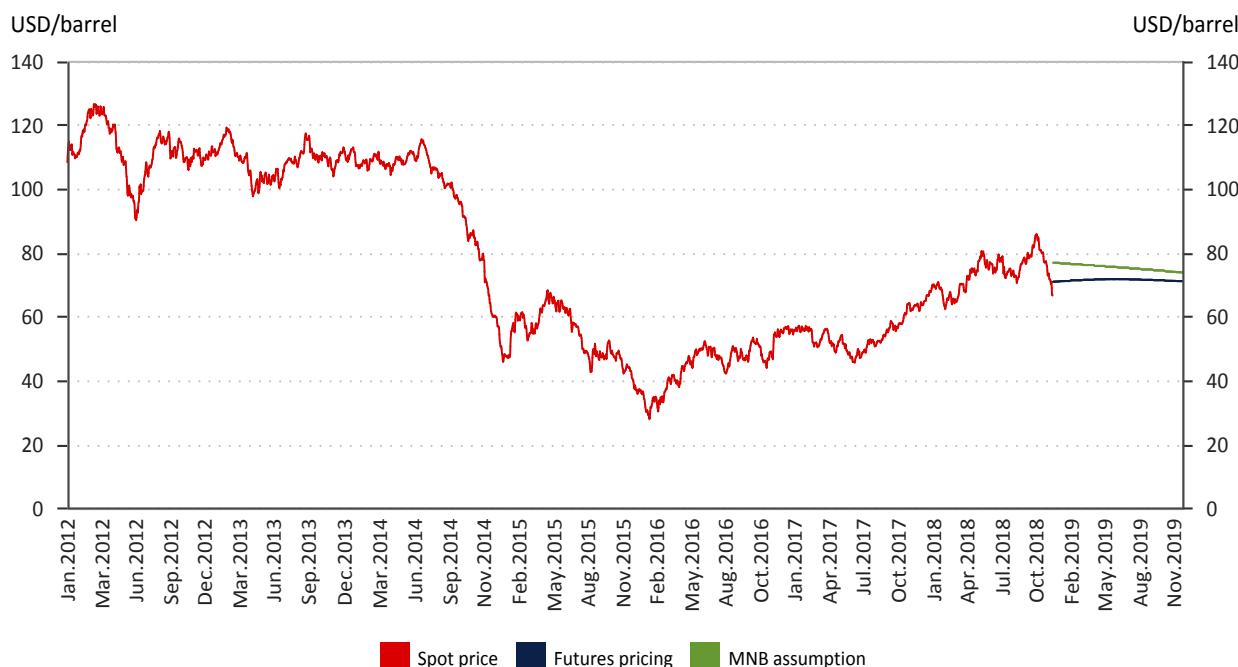
### 8. Expectations for HUF/EUR exchange rate



Source: Thomson Reuters, MNB.

Note: reverse scale, the red dots represent analysts average exchange rate expectations according to the most recent Reuters FX Poll.

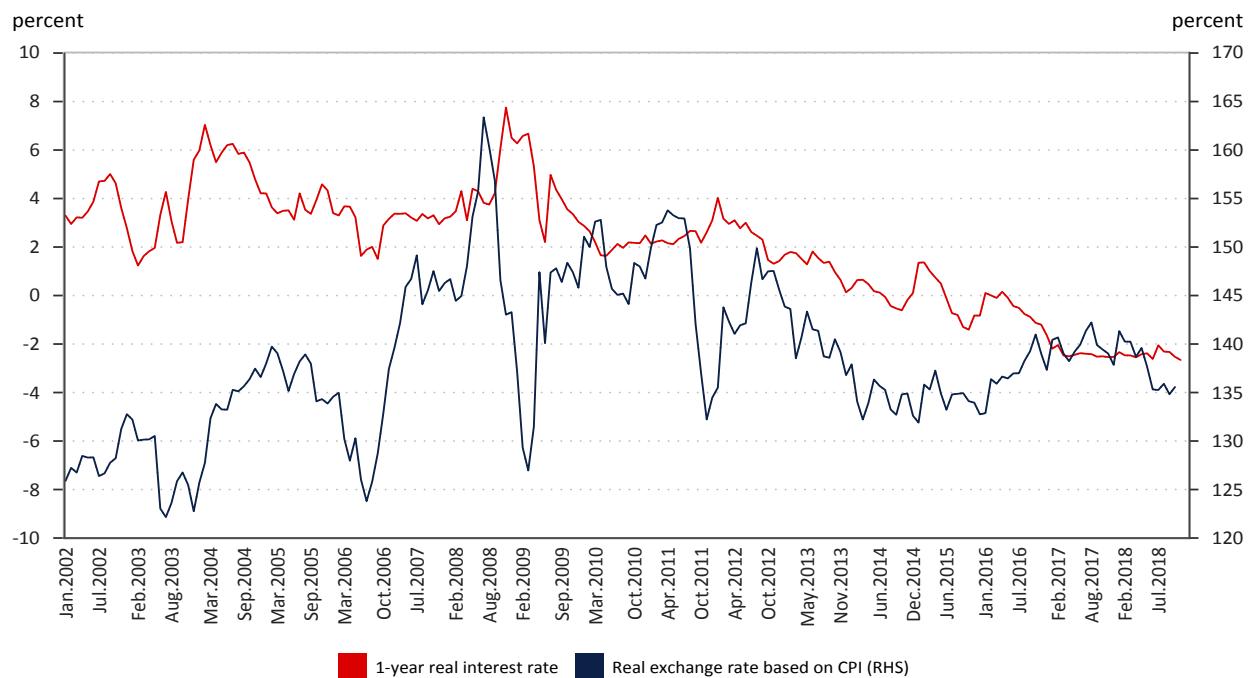
### 9. Spot and futures Brent crude oil price



Source: Bloomberg, MNB.

Futures are based on the latest available futures prices. Technical assumption underlying is used in our inflation forecast published in the most recent Quarterly Report on inflation.

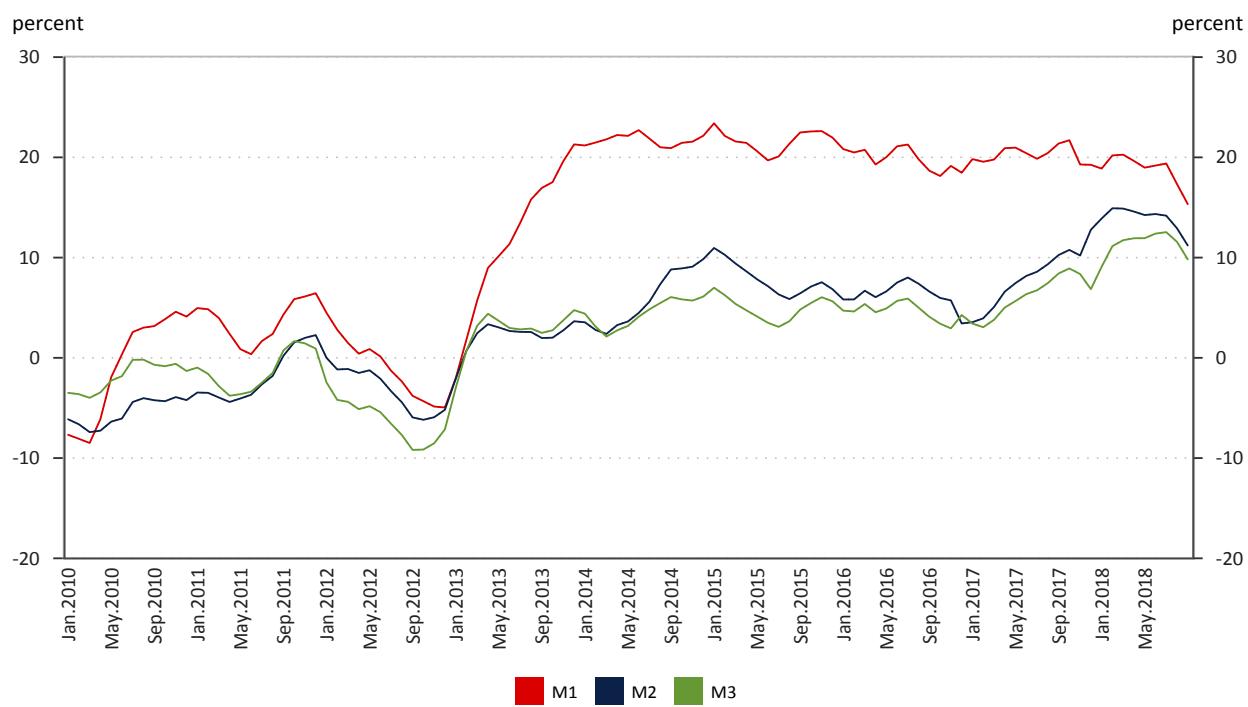
### 10. Monetary conditions



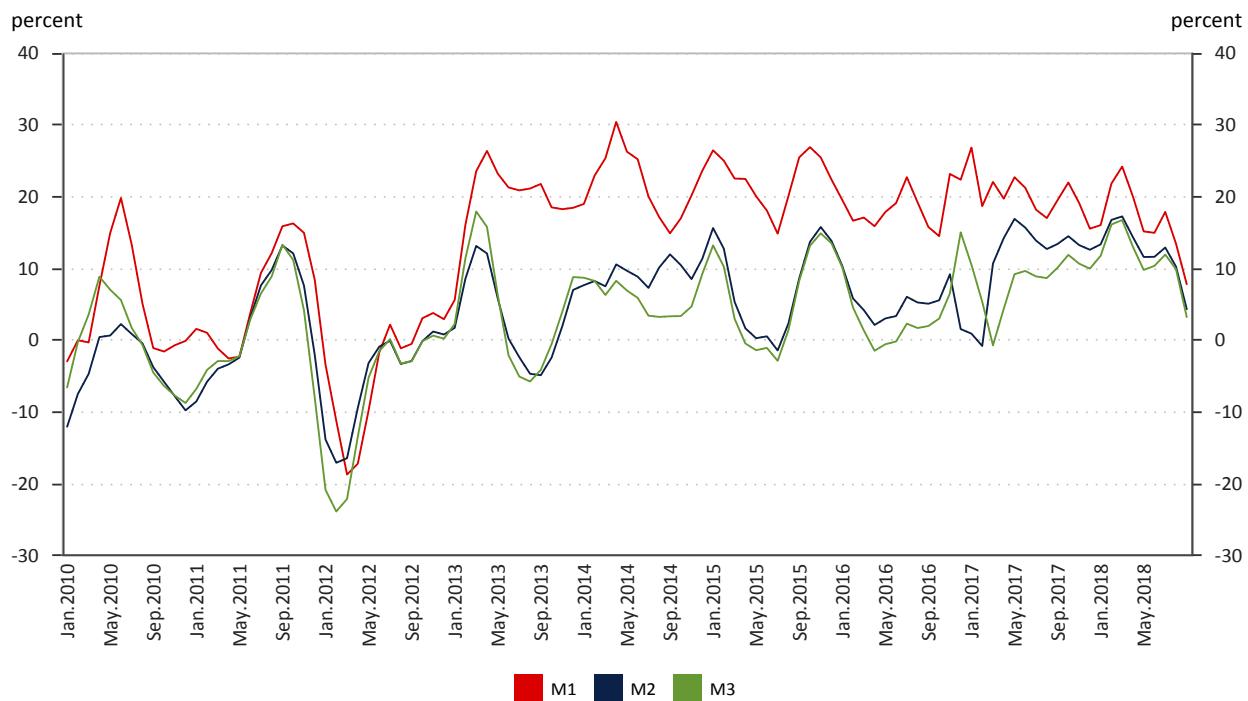
Source: Reuters, HCSO, Eurostat, ÁKK, MNB

Note: Real interest rate is calculated from 1-year zero coupon yield and analysts corresponding 1-year forward inflation expectations derived from the Reuters-poll by the MNB. Real exchange rate is calculated from the change of the forint relative to euro, adjusted by the corresponding Hungarian CPI and the EMU is HICP. (1 January 1997=100%, increase represents appreciation)

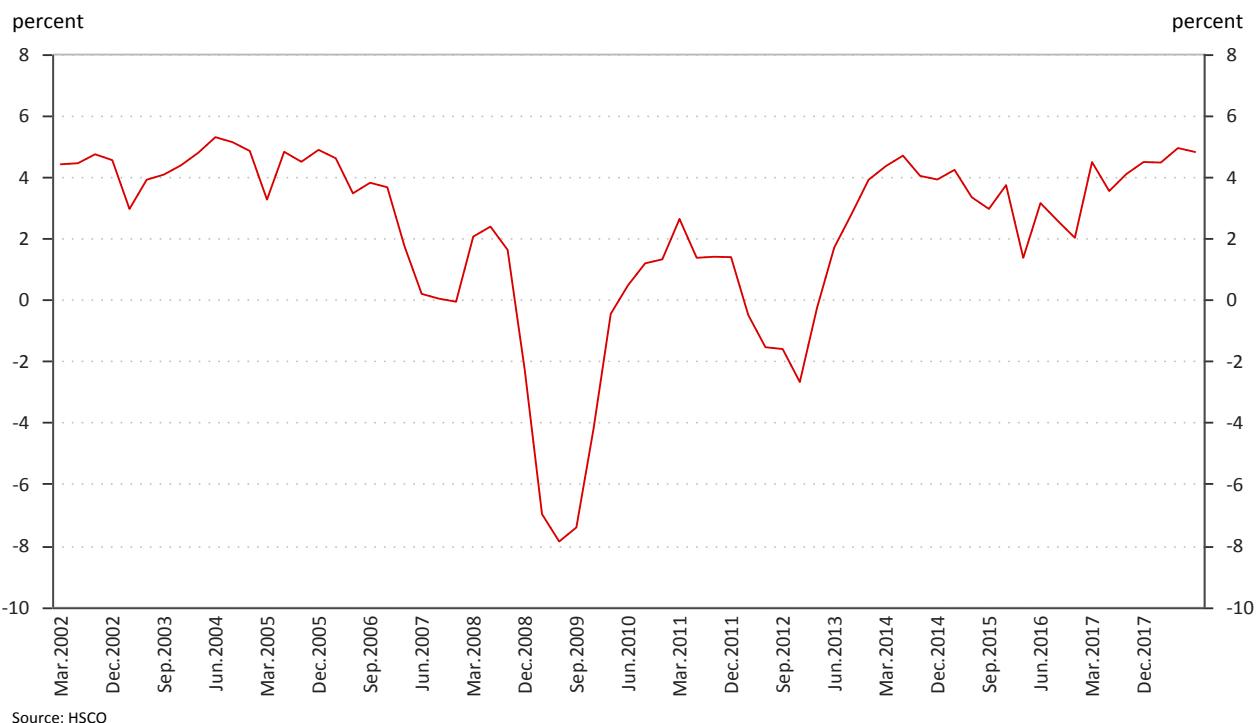
### 11. Real growth rate of monetary aggregates (year-on-year basis)



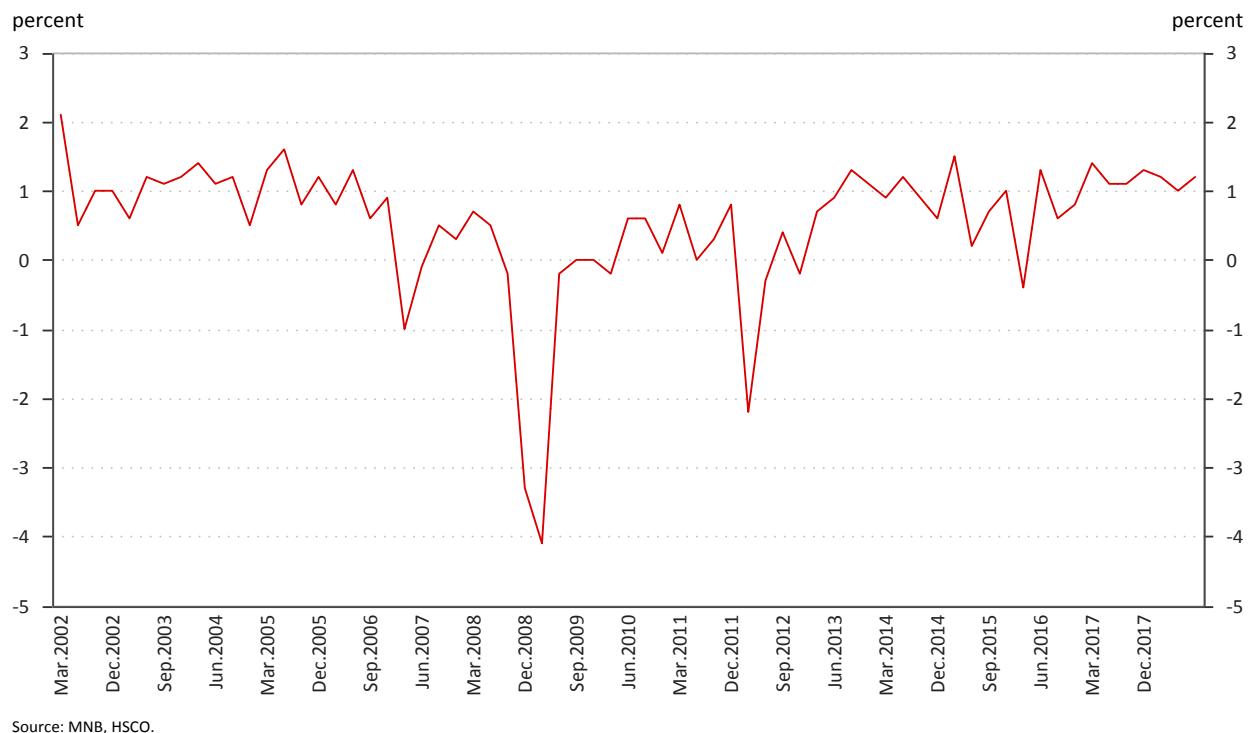
Source: MNB.

**12. Real growth rate of monetary aggregates (annualized from quarterly rates)**

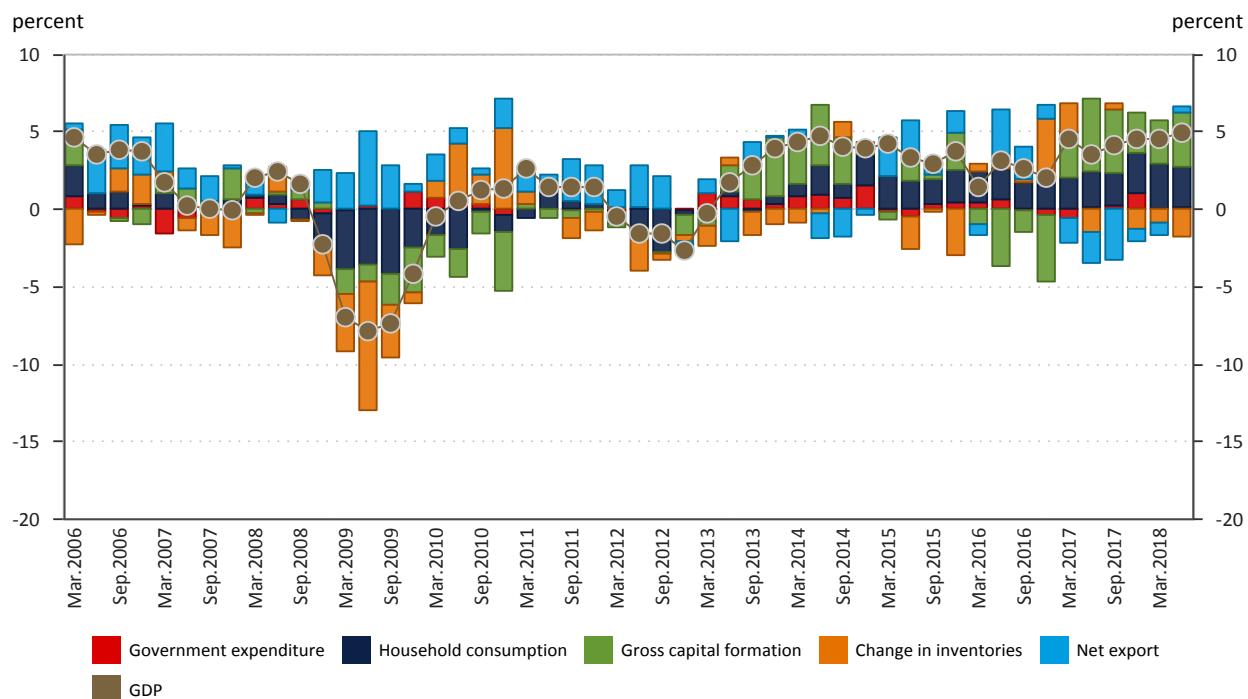
Source: MNB.

**13. Change in annual GDP**

Source: HSCO

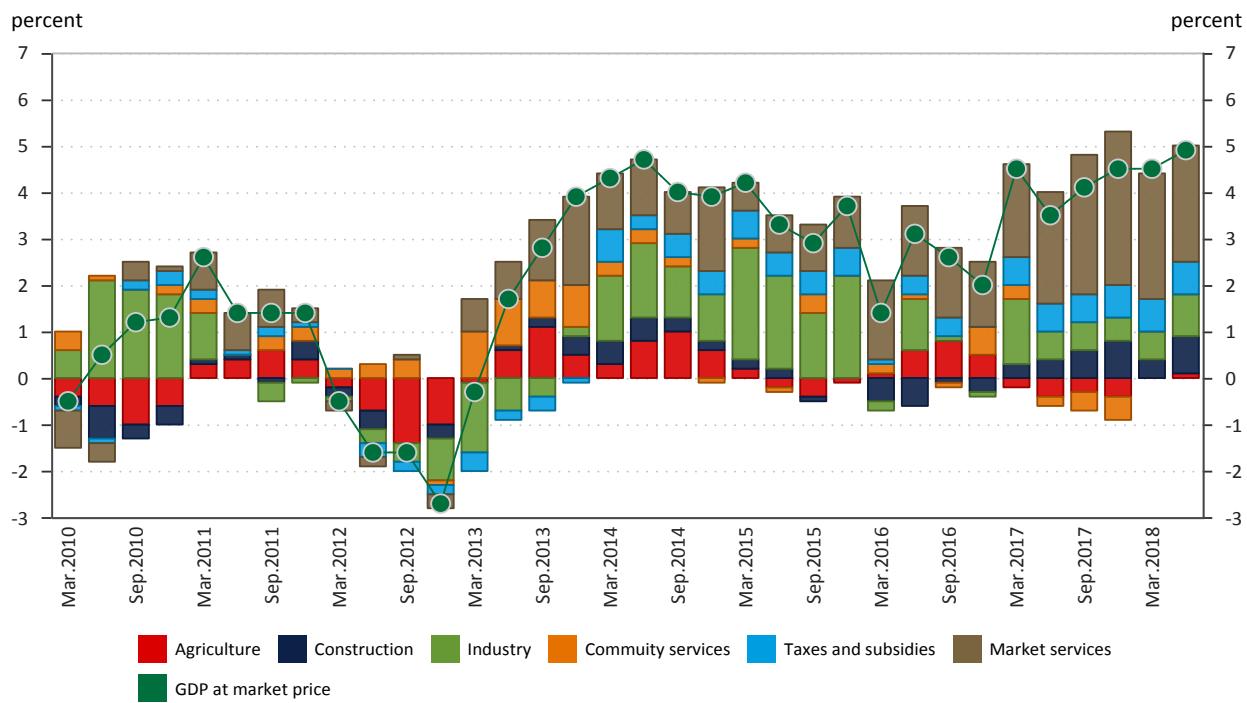
**14. Quarterly GDP change**

Source: MNB, HSCO.

**15. Contribution to annual GDP growth**

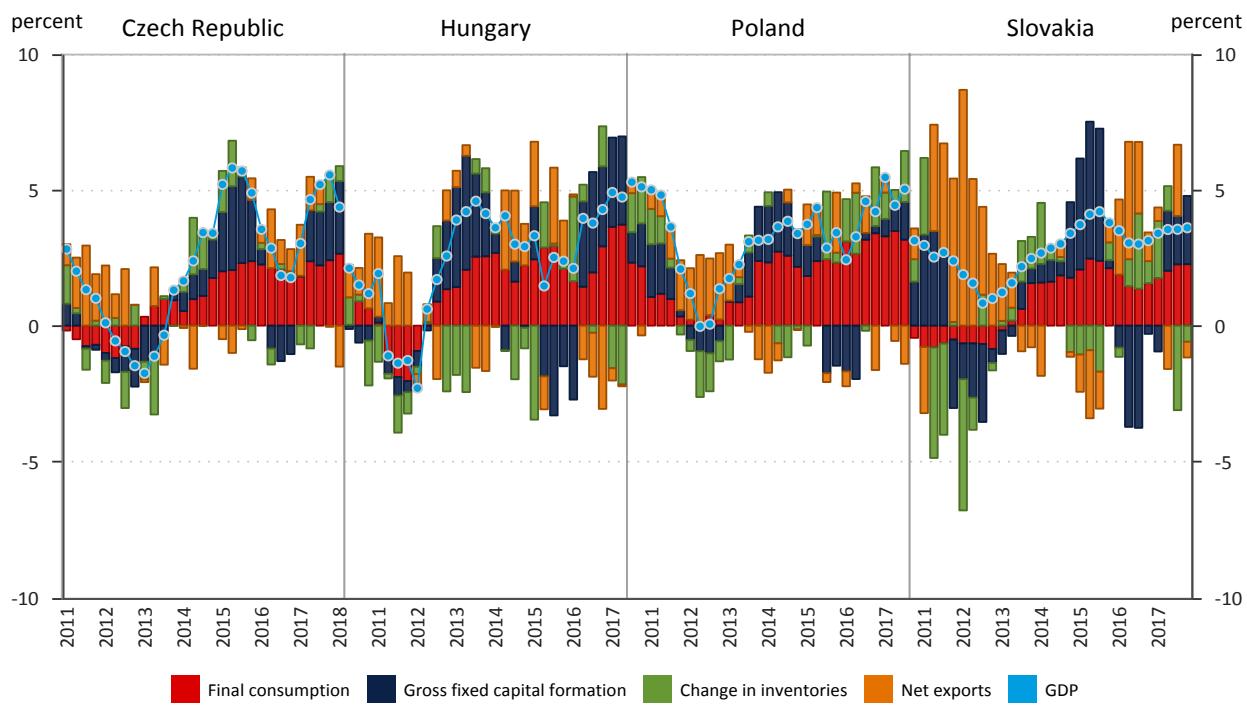
Source: MNB, HSCO.

### 16. Decomposition of GDP growth



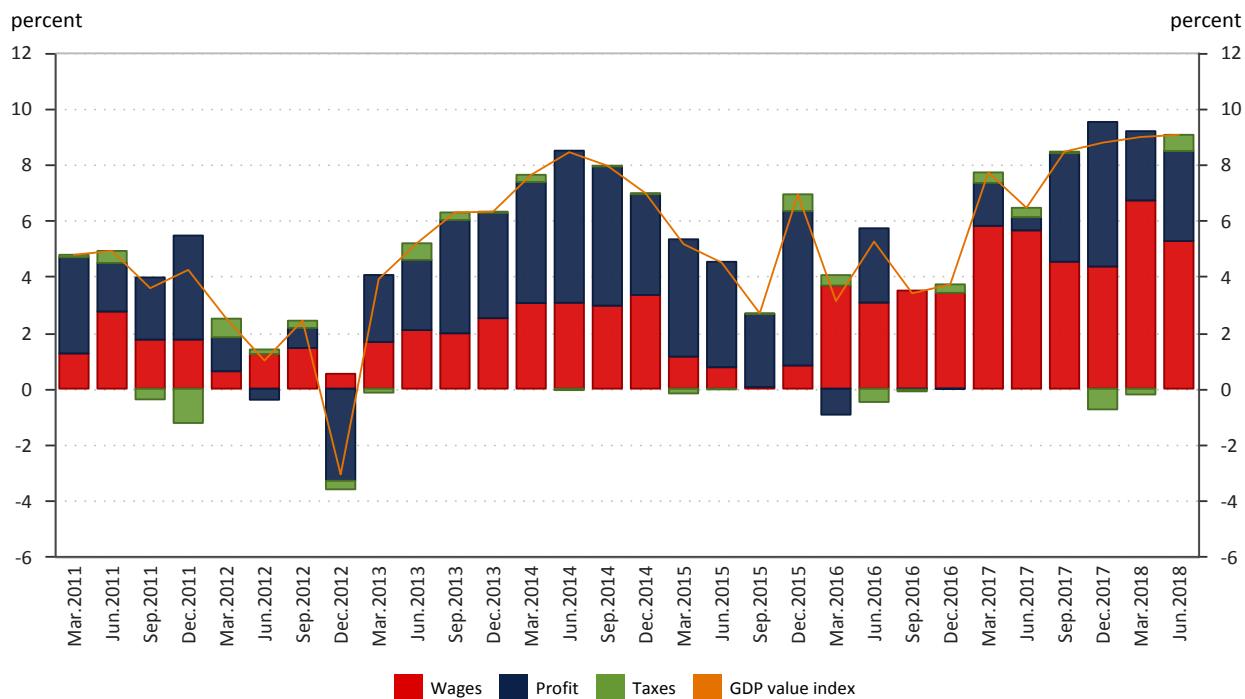
Source: HSCO.

### 17. Contribution to annual GDP growth in the region



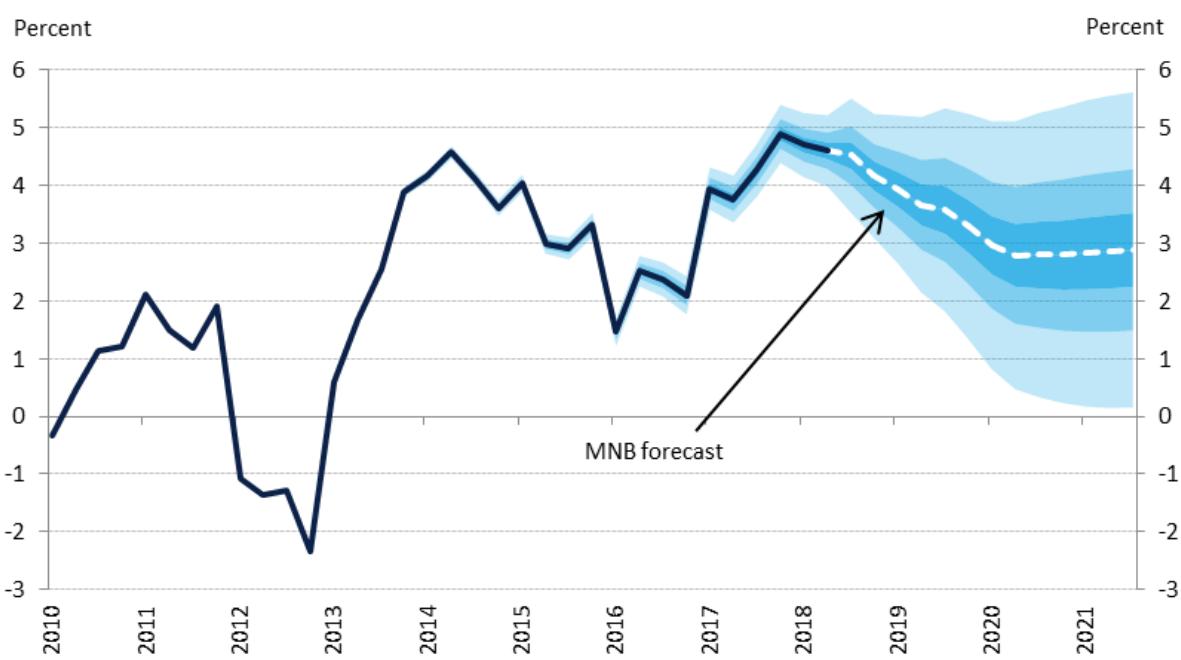
Source: MNB, HSCO. Note: based on seasonally and calendar adjusted and reconciled data

### 18. Decomposition of GDP growth (income approach)

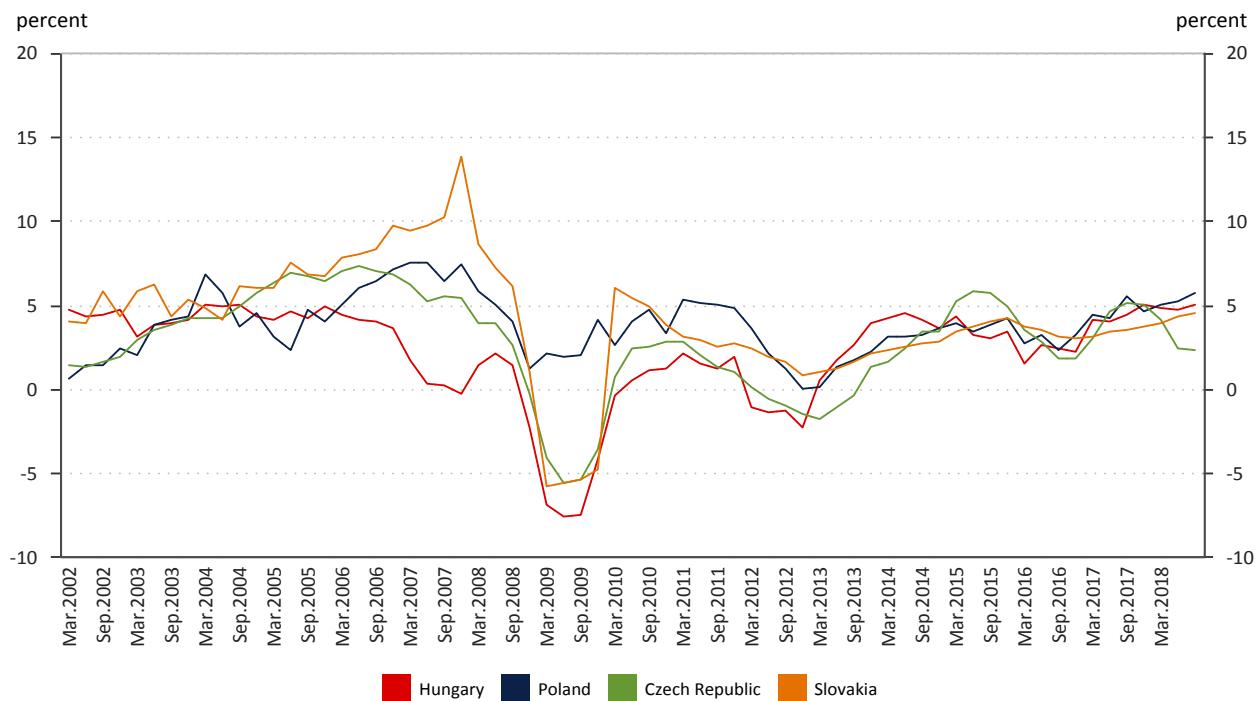


Source: MNB, HSCO Note: contribution in percentage points

### 19. Fan chart of the GDP forecast

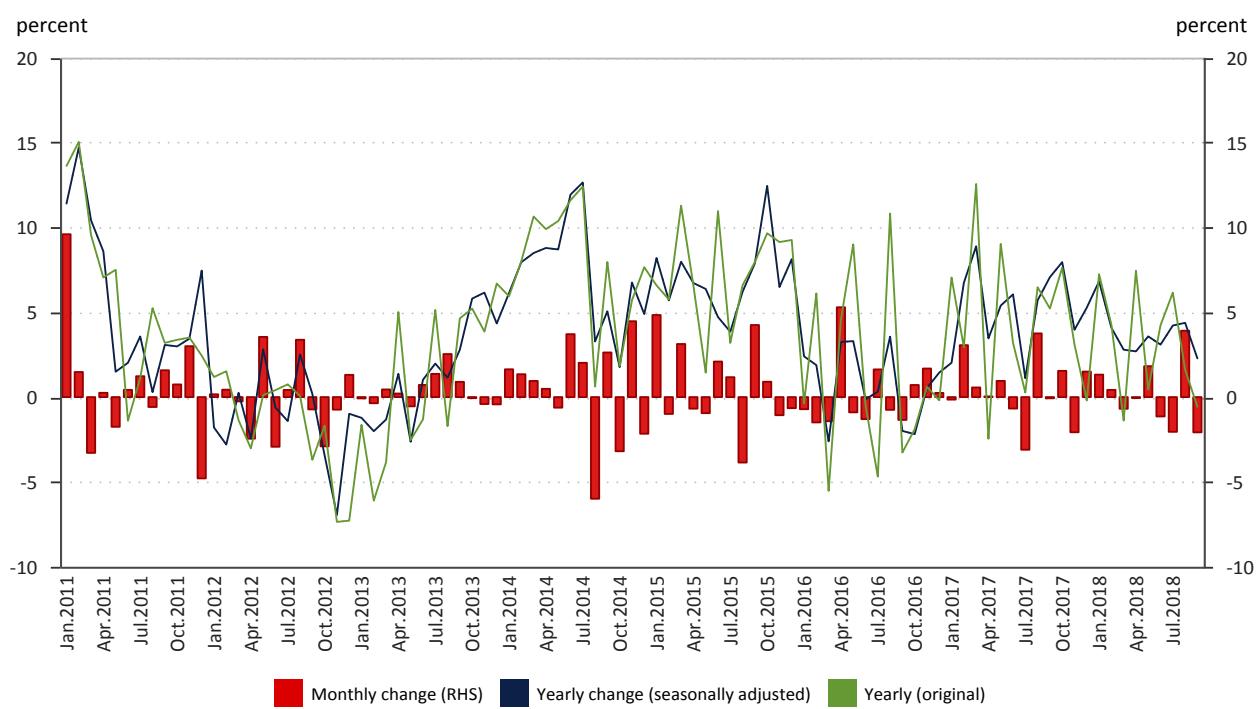


Source: HCSO, MNB

**20. GDP growth rate in CEE**

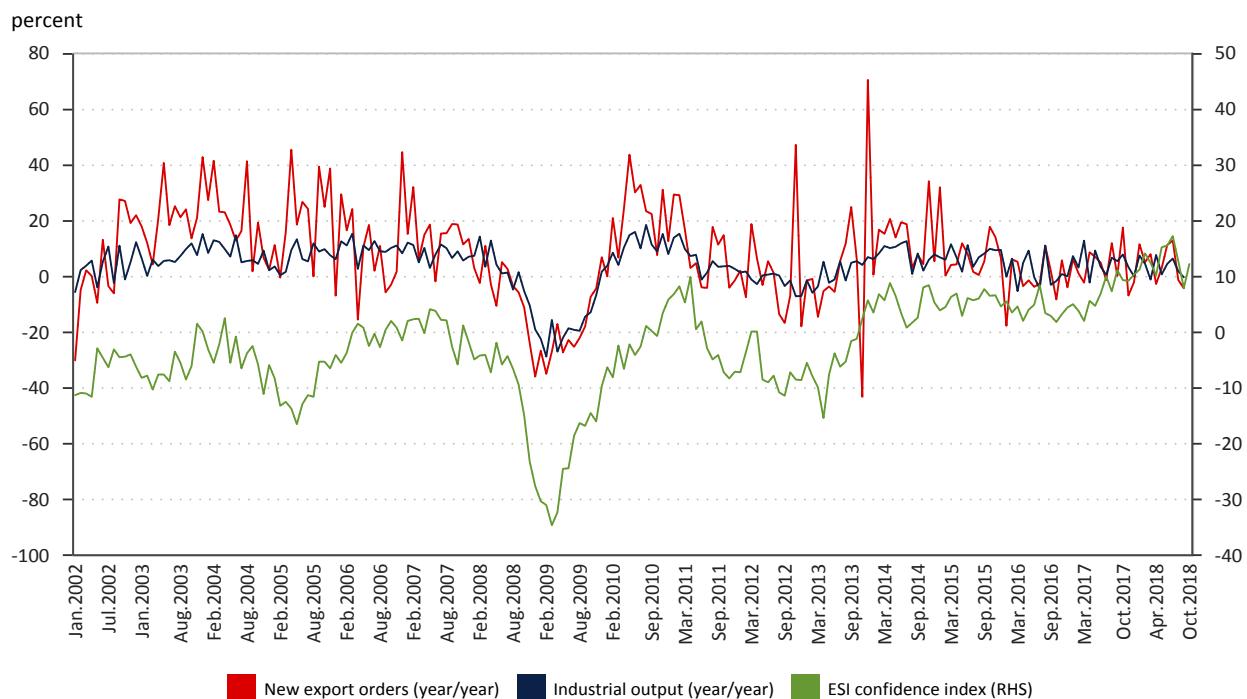
Source: Eurostat

Note: annual growth rate.

**21. Change in industrial production**

Source: MNB, HCSO.

## 22. Industrial production and new export orders



Source: HSCO, European Commission.

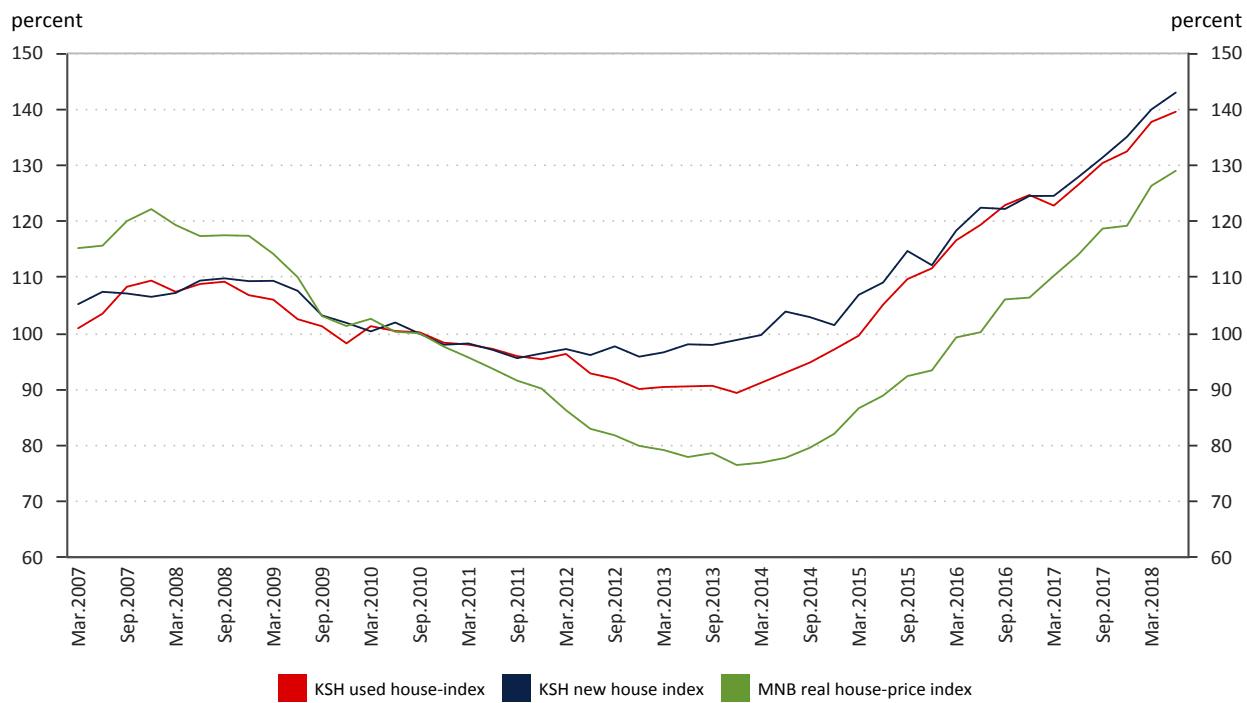
Note: ESI Index is a survey on business confidence by the European Commission. Chart represents the industrial sub-index.

## 23. Developments on the real estate market



Source: MNB, HSCO.

### 24. Developement of house prices



Source: HCSO

Note: 2010=100, inflation adjusted indices.

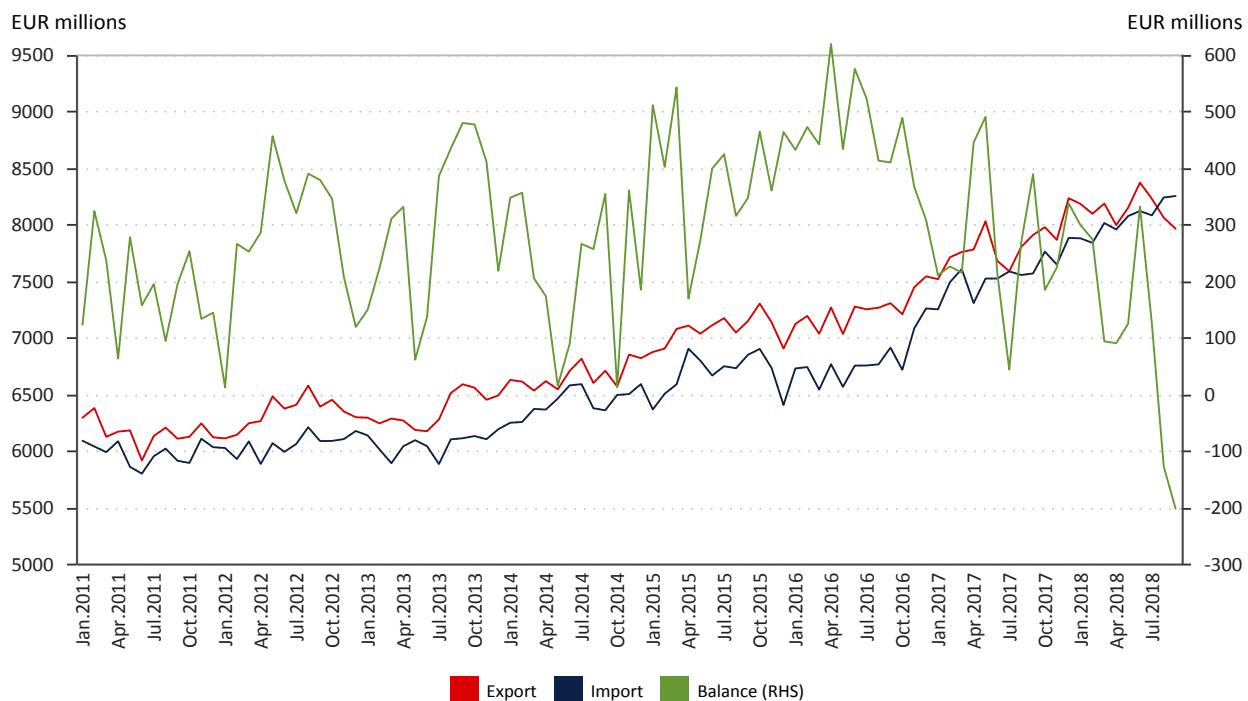
### 25. Household confidence index (reweighted)



Source: European Commission.

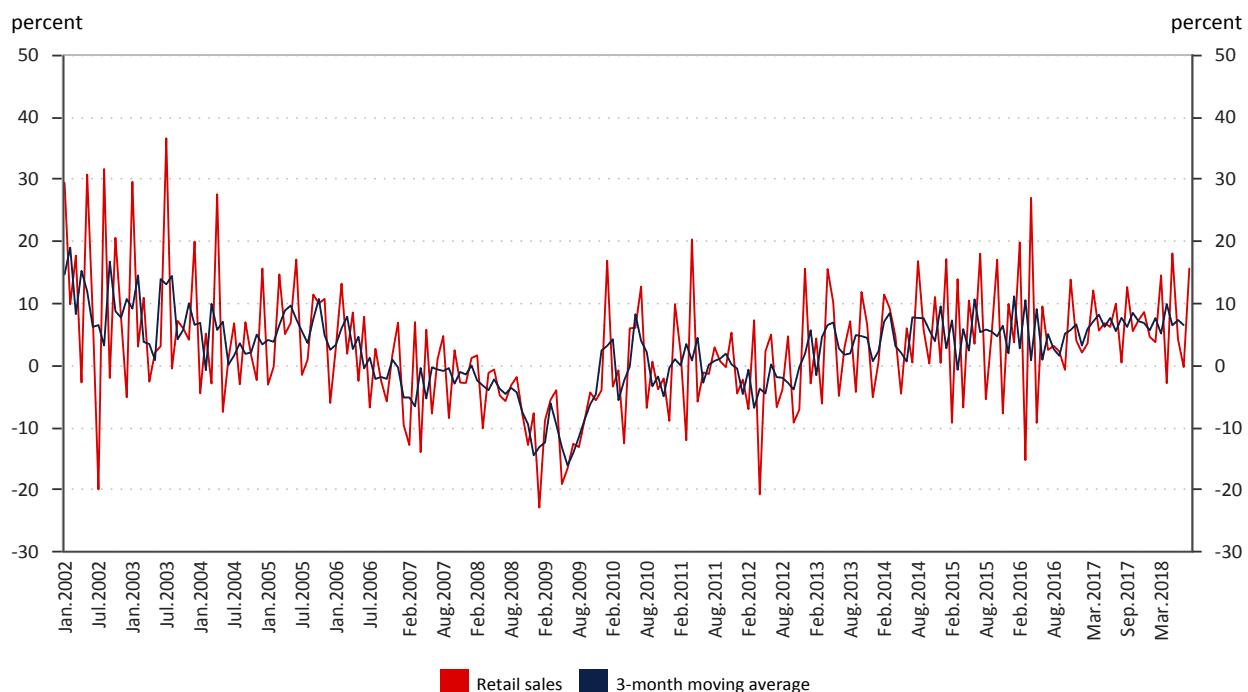
Note: Household confidence indicator is a composite indicator based on the ESI survey

### 26. Change in export and import volumes



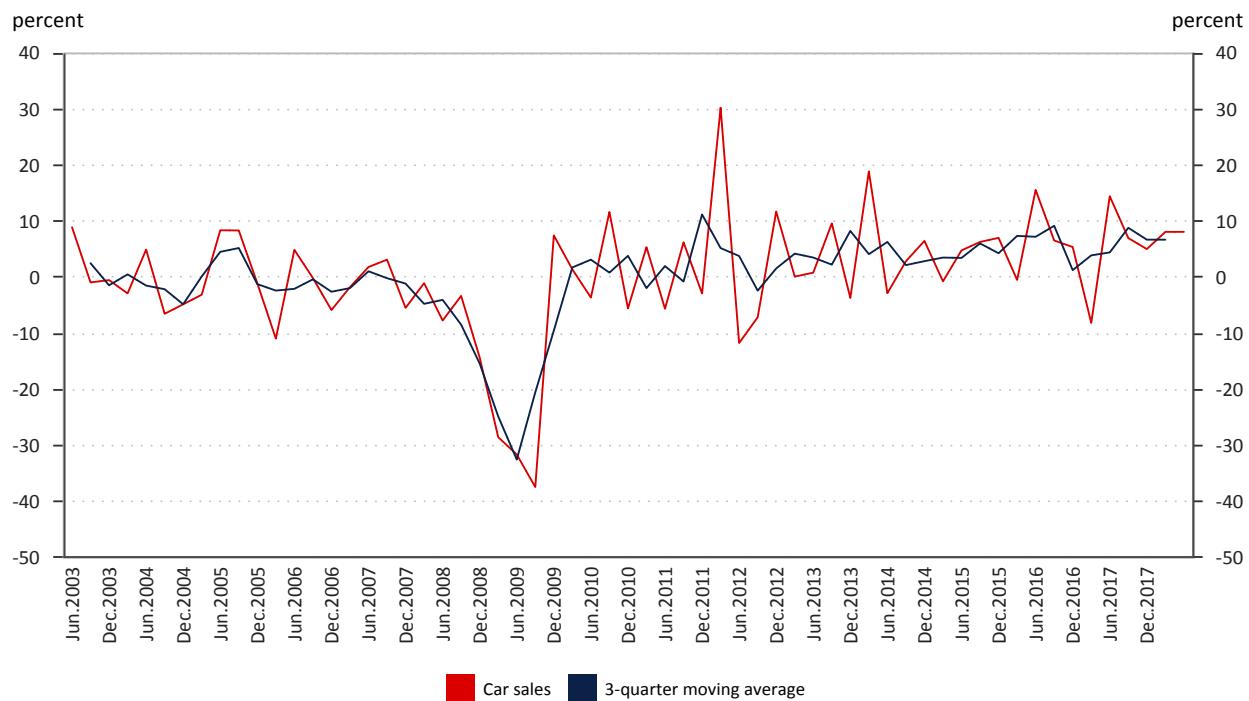
Source: HCSO, MNB calculation. Comment: Foreign trade was corrected due to slippage and missing items between specific months and the activity of VAT resident companies. The seasonal adjustment of the trade balance was done directly by MNB

### 27. Total volume of retail trade

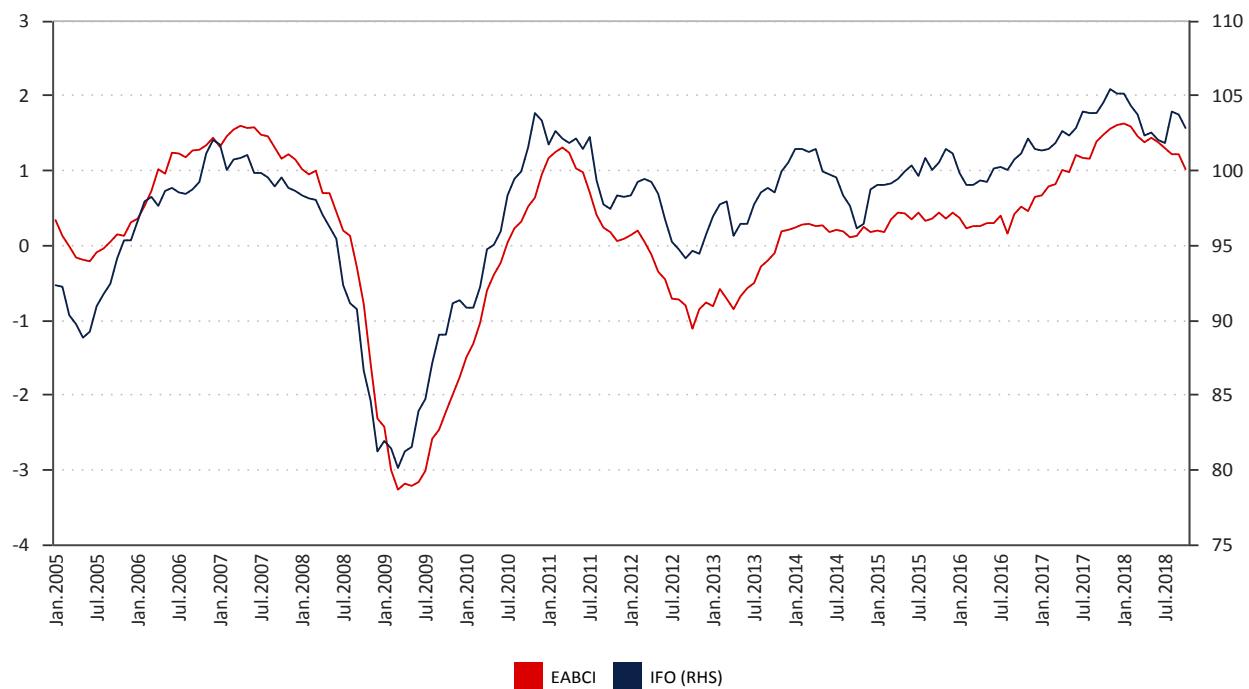


Source: HCSO.

Note: seasonally adjusted annualised monthly growth rates. The data of total retail sales contain beyond the narrow retail sales the turnover of motor vehicles and automotive fuel as well.

**28. Quarterly growth rates of automobile sales**

Source: ACEA.

**29. Business climate indices in the EMU**

Source: IFO; European Committee.

Note: IFO: Business Climate Index of the German Institut für Wirtschaftsforschung (Average of year 2000 = 100); EBCI: Business Climate Index of the European Committee (deviations from the long-run average), seasonally adjusted.

**30. The annual growth rate of the volume of imported goods and services**

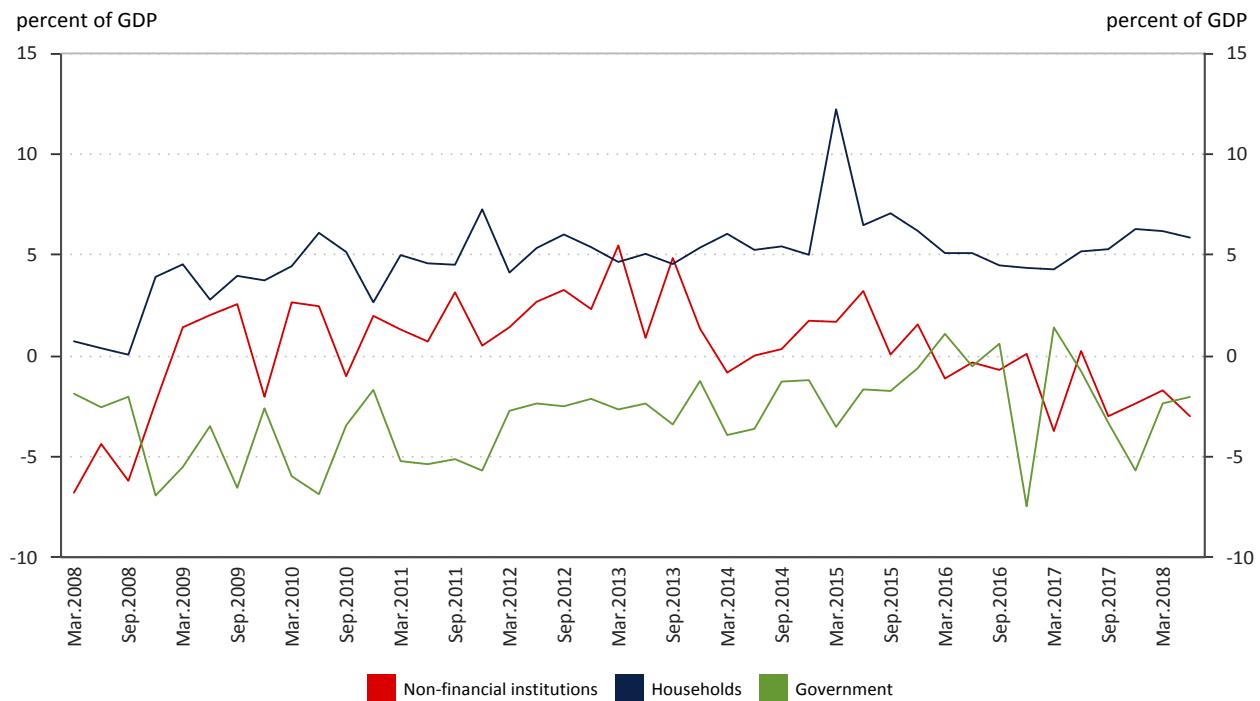
Source: Eurostat.

**31. GDP growth rate in the EMU, US and Japan**

Source: Eurostat

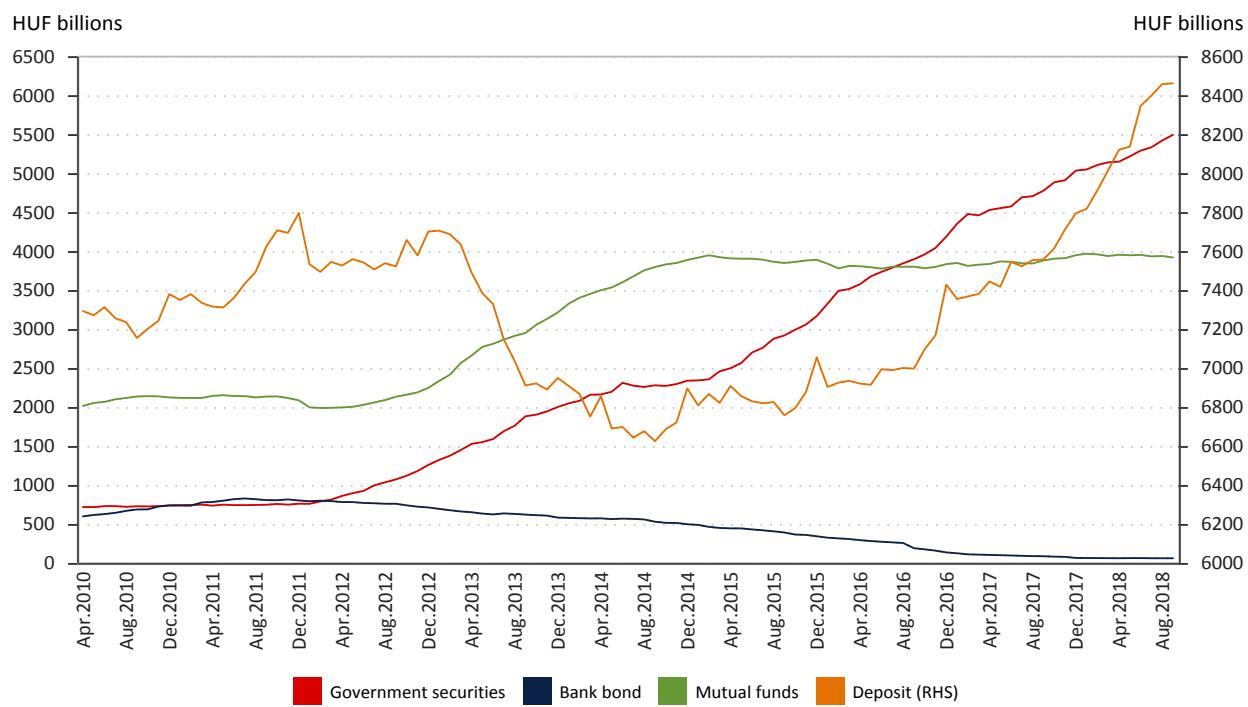
Note: quarterly growth rate.

### 32. Net lending of domestic sectors

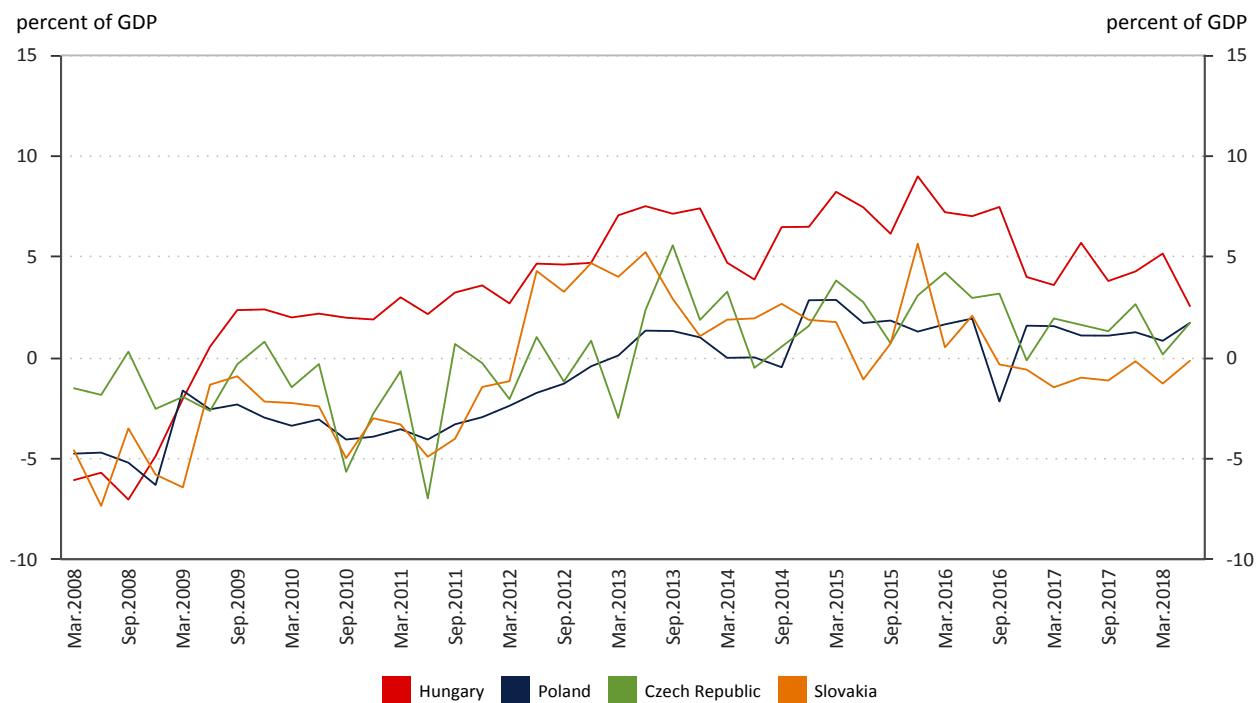


Source: MNB. Last data at households is preliminary.

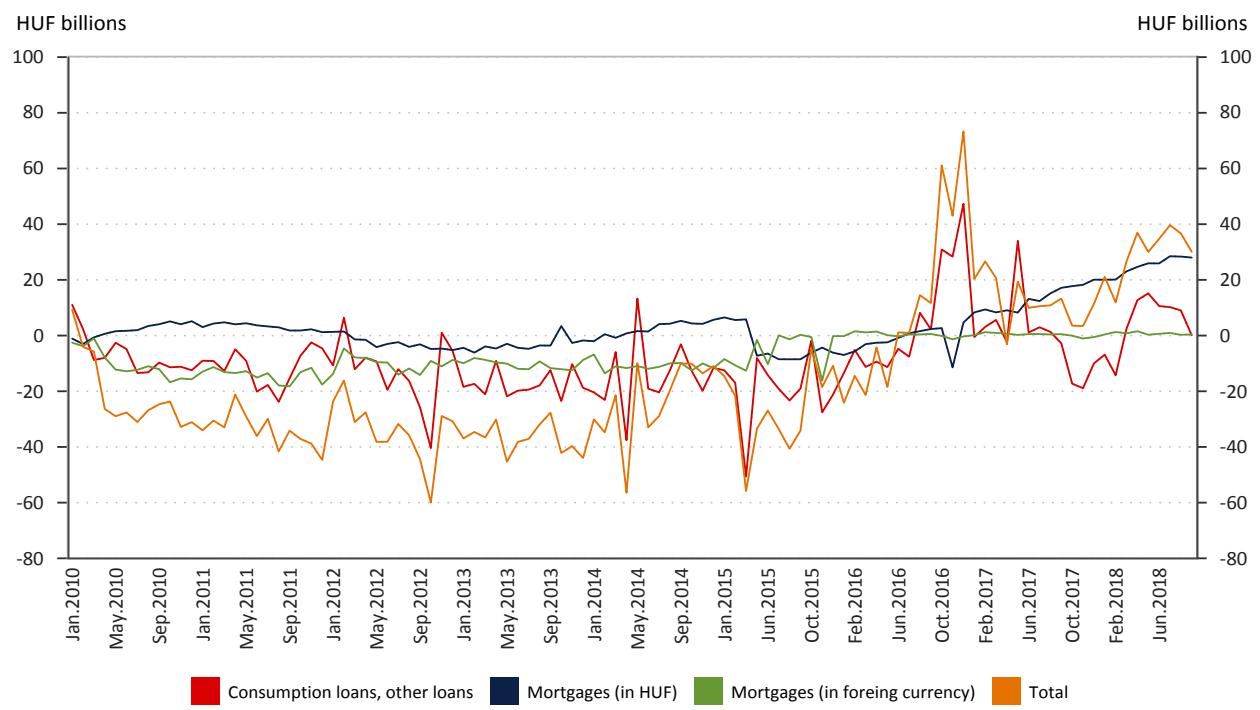
### 33. Main financial assets held by households



Source: MNB.

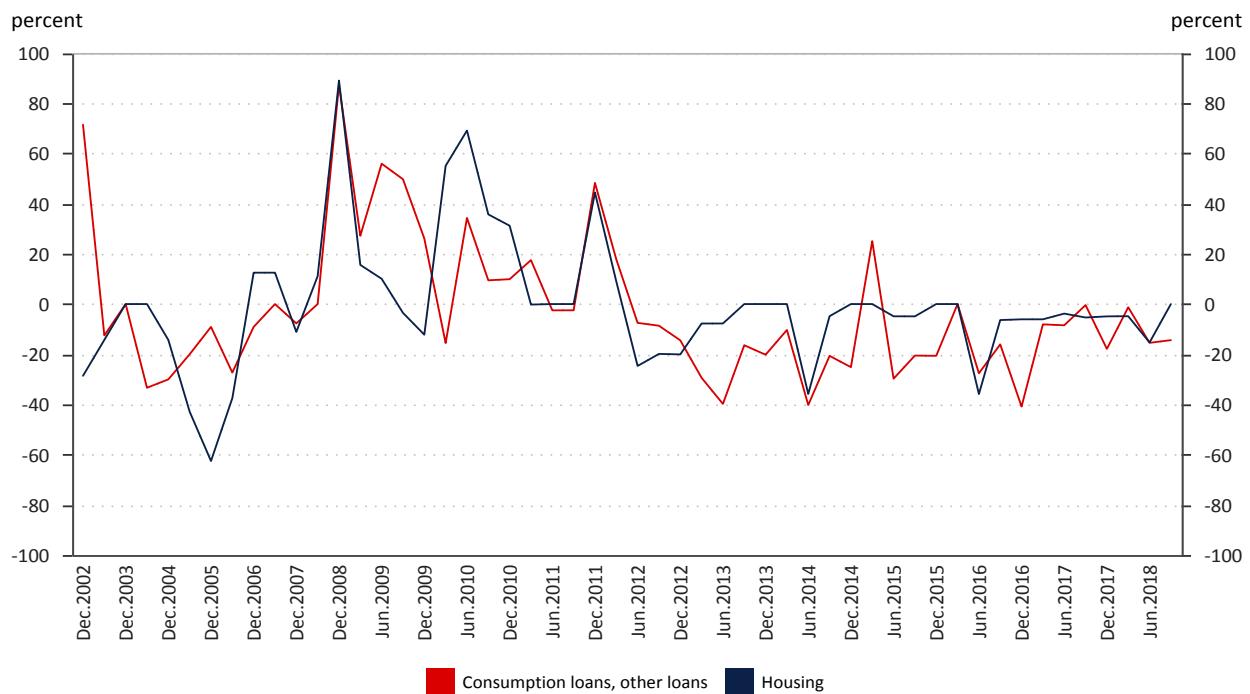
**34. External financing capacity in the CEE countries**

Source: MNB, Eurostat.

**35. Net borrowing of the households**

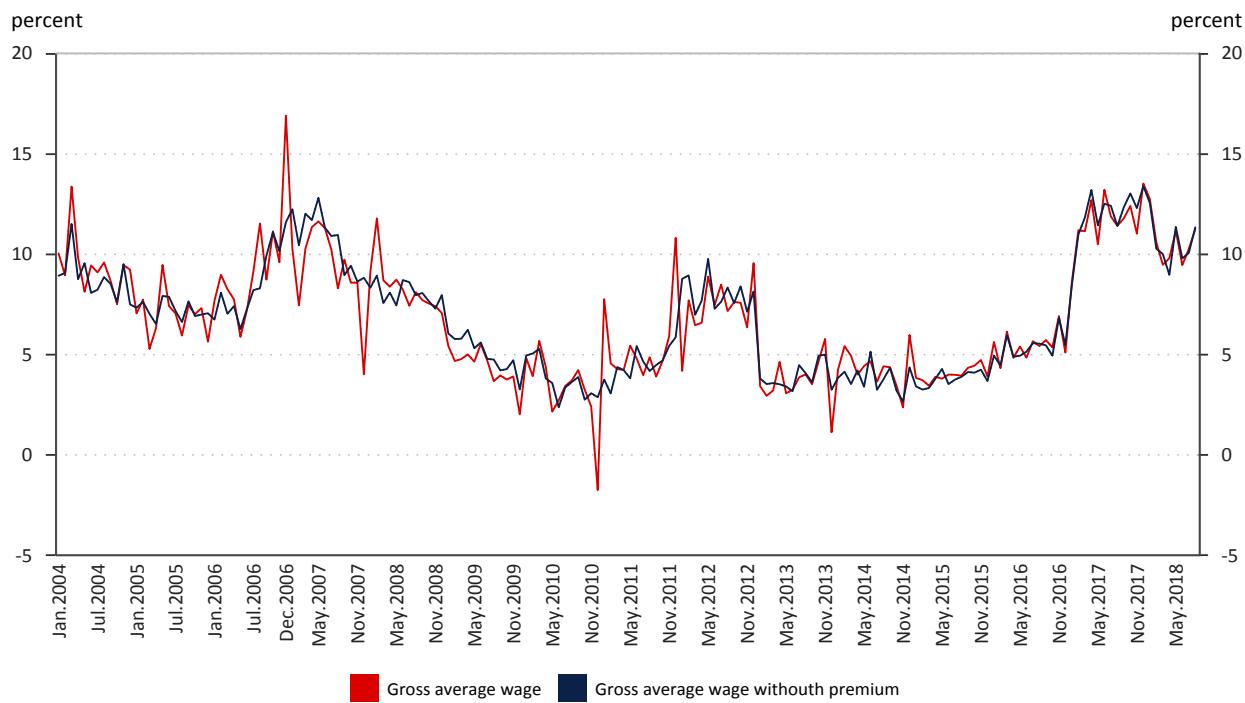
Source: MNB

### 36. Creditworthiness standards and credit conditions in the household sector



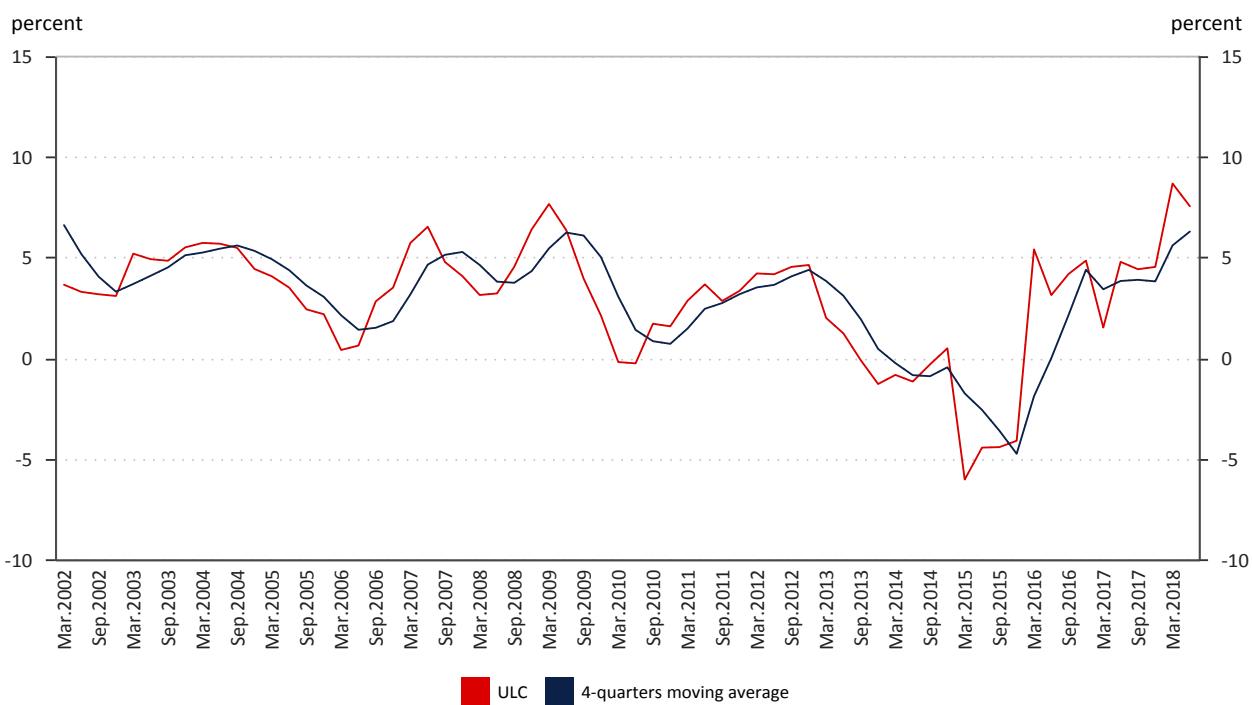
### 37. Creditworthiness standards and credit conditions in the corporate sector



**38. Wage growth in private sector**

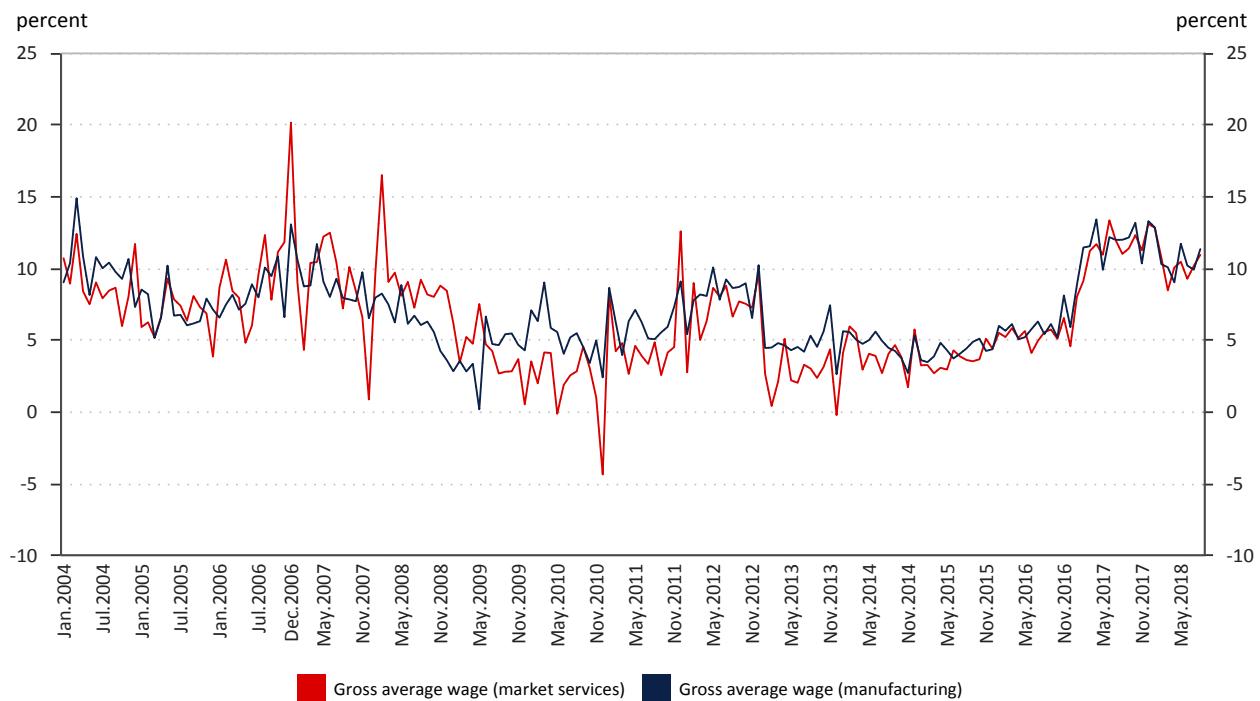
Source: HCSO, seasonally adjusted by MNB

Note: annual growth rates.

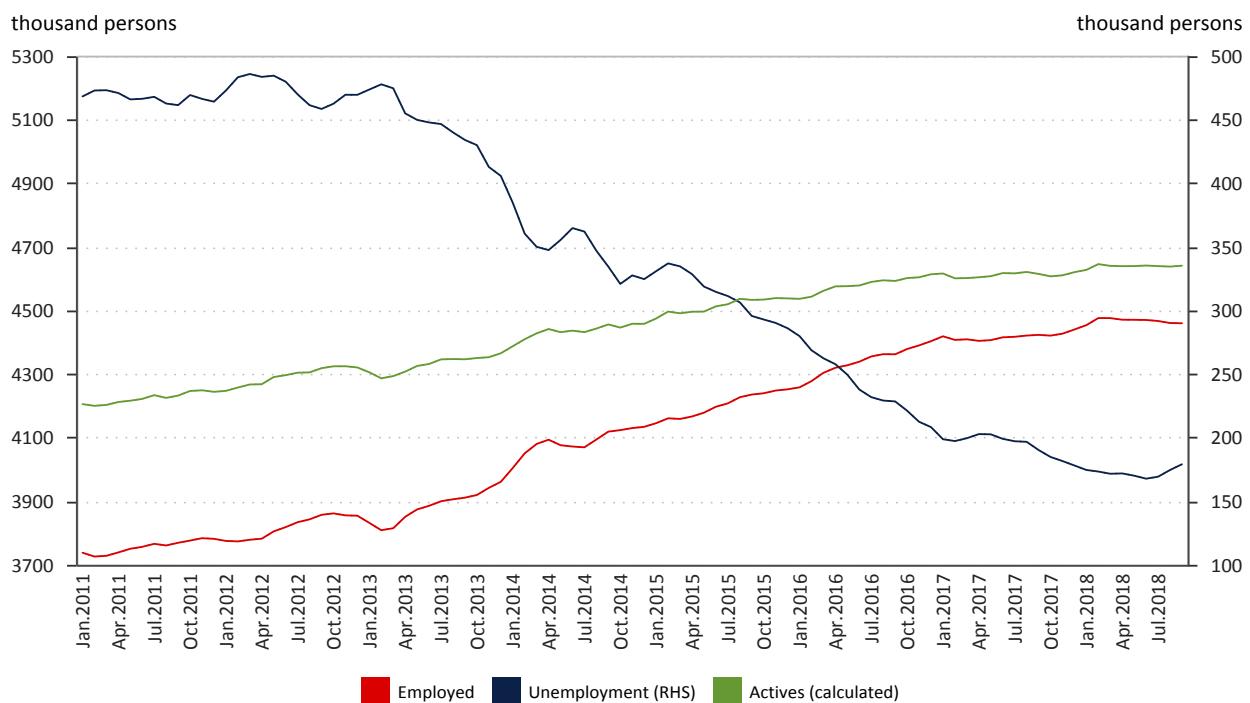
**39. Unit labour cost in the private sector**

Source: HCSO, seasonally adjusted by MNB

Note: annual growth rates.

**40. Wage growth in the manufacturing and market service sector**

Source: MNB, HCSO.

**41. Activity and unemployment**

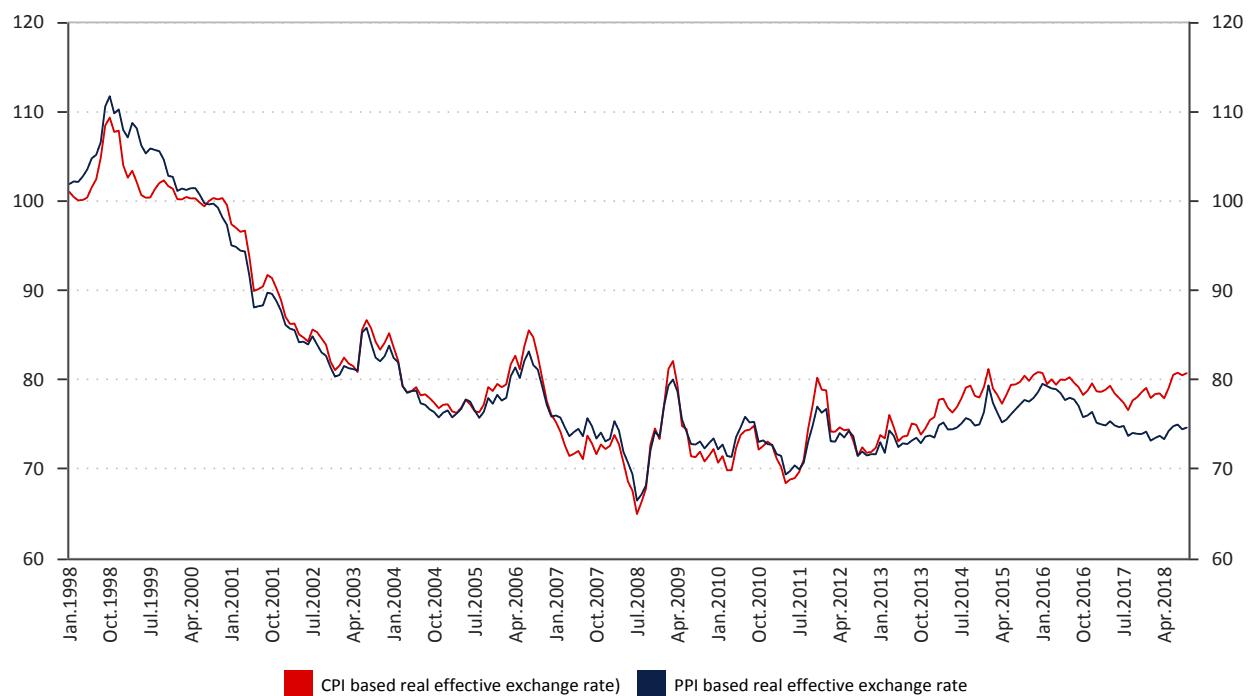
Source: HCSO.

Notes: levels, seasonally adjusted.

**42. ULC based real effective exchange rate of the HUF**

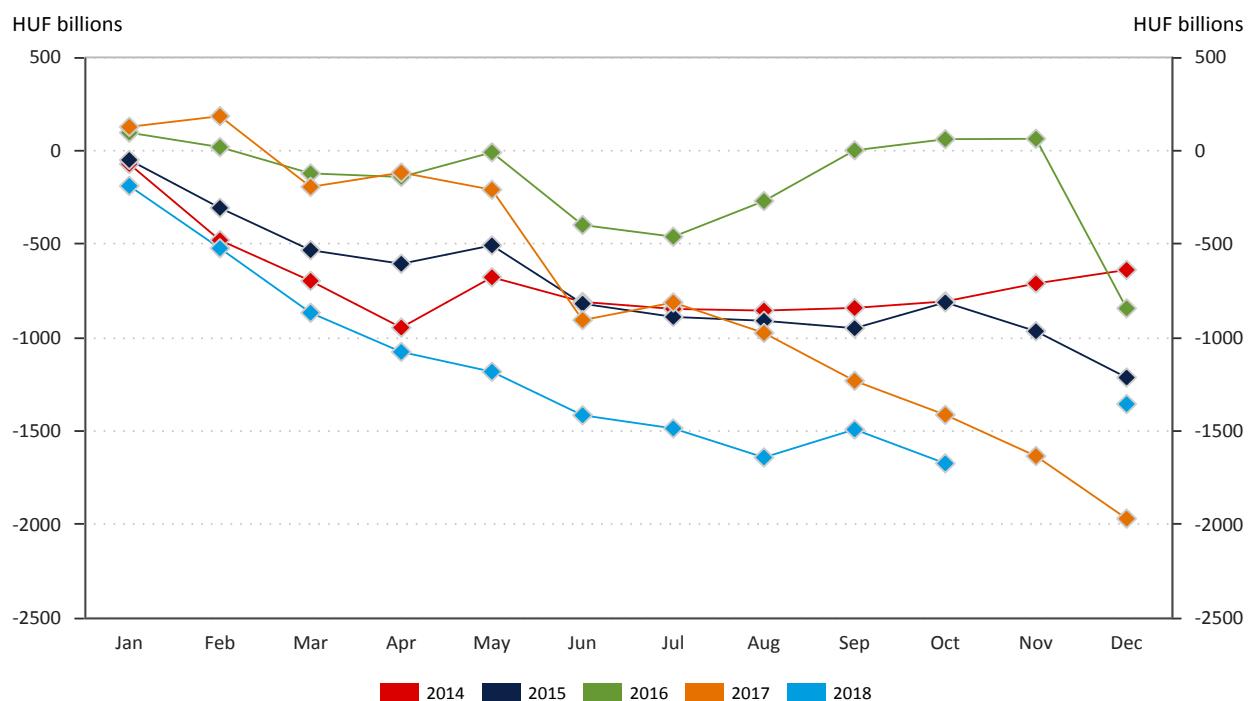
Source: Eurostat.

Note: average of year 2000 = 100%. Increase means real-effective appreciation of HUF.

**43. CPI and PPI based real effective exchange rates of the HUF**

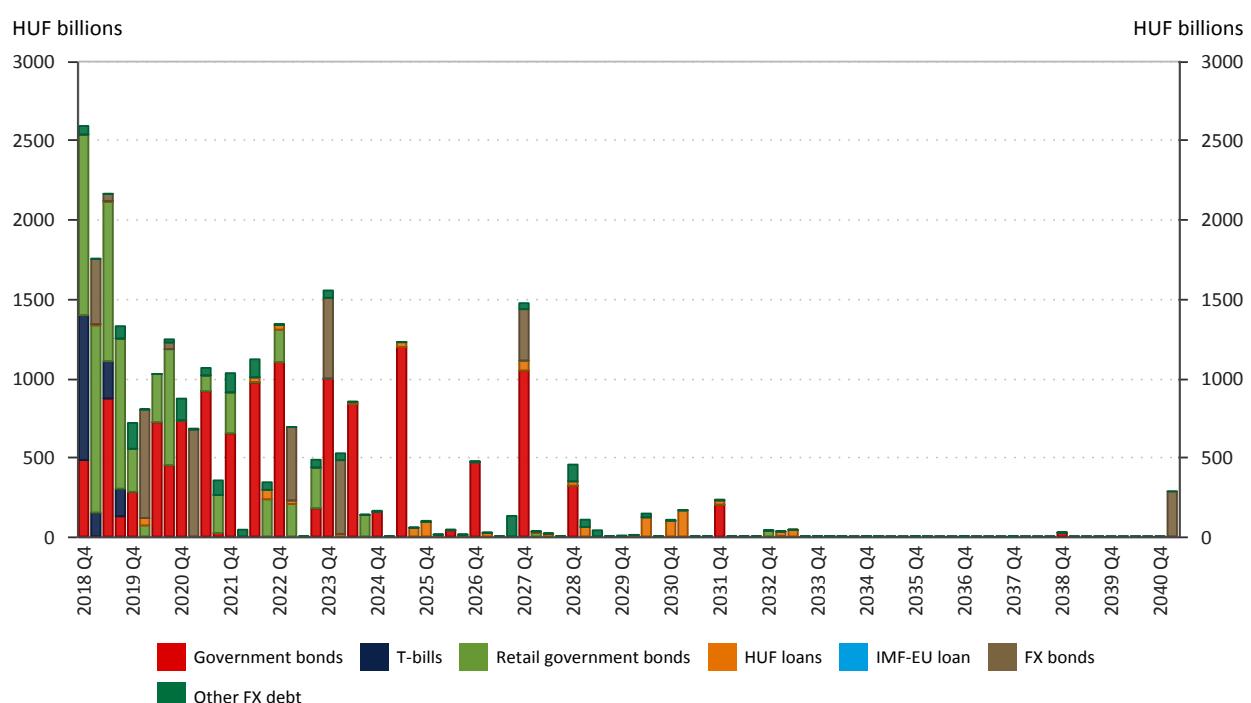
Source: HCSO.

Note: average of year 2000 = 100%. Increase means real-effective depreciation of HUF.

**44. Monthly evolution of budget deficit**

Source: Hungarian State Treasury

Note: Individual dot shows the budget forecast for the current year. Cumulated balance.

**45. Quarterly maturity structure of the government debt**

Source: MNB, ÁKK.

Note: Redemptions in the recent quarter are included.

#### 46. The latest central projection of the MNB compared to other prognoses

	2018	2019	2020
<b>CPI (annual average growth rate, %)</b>			
MNB (SEP 2018)	2.8	3.1	3.0
Consensus Economics (OCT 2018) <sup>1</sup>	2.7 - 2.9- 3.1	2.5 - 3.2 - 3.8	
European Commission (NOV 2018)	3.0	3.3	3.0
IMF (OCT 2018)	2.8	3.3	3.0
OECD (MAY 2018)	2.6	3.4	
Reuters survey (OCT 2018) <sup>1</sup>	2.8 - 2.9 - 3.0	2.9 - 3.2 - 3.5	3.0 - 3.1 - 3.3
<b>GDP (annual growth rate, %)</b>			
MNB (SEP 2018)	4.4	3.5	3.0
Consensus Economics (OCT 2018) <sup>1</sup>	4.0 - 4.3 - 4.6	2.0 - 3.2 - 4.1	
European Commission (NOV 2018)	4.3	3.4	2.6
IMF (OCT 2018)	4.0	3.3	2.6
OECD (MAY 2018)	4.4	3.6	
Reuters survey (OCT 2018) <sup>1</sup>	3.8 - 4.3 - 4.6	3.0 - 3.5 - 4.1	
<b>Current account balance<sup>3</sup></b>			
MNB (SEP 2018)	1.0	0.7	1.3
European Commission (NOV 2018)	1.2	0.0	0.3
IMF (OCT 2018)	2.3	2.1	1.9
OECD(MAY 2018)	2.5	0.8	
Reuters survey (OCT 2018) <sup>1</sup>	2.4 - 3.0 - 3.7	1.9 - 2.9 - 4.6	
<b>Budget deficit (ESA-95 method)<sup>3,4</sup></b>			
MNB (SEP 2018)	(-2.2) - (-2.3)	(-1.7) - (-1.8)	(-1.4) - (-1.8)
Consensus Economics (OCT 2018) <sup>1</sup>	(-2.0) - (-2.4) - (-3.0)	(-1.8) - (-2.2) - (-3.0)	
European Commission (NOV 2018)	-2.4	-1.9	-1.8
IMF (OCT 2018)	-2.4	-2.0	-1.9
OECD (MAY 2018)	-2.6	-2.1	
Reuters survey (OCT 2018) <sup>1</sup>	(-2.0) - (-2.3) - (-2.8)	(-1.7) - (-2.1) - (-2.8)	
<b>Forecasts on the size of Hungary's export markets (annual growth rate, %)</b>			
MNB (SEP 2018)	5.3	4.5	4.2
European Commission (NOV 2018) <sup>2</sup>	4.7	4.7	4.1
IMF (OCT 2018) <sup>2</sup>	4.6	4.8	4.5
OECD (MAY 2018) <sup>2</sup>	4.9	5.1	
<b>Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)</b>			
MNB (SEP 2018)	2.6	2.5	2.4
Consensus Economics(OCT 2018) <sup>1</sup>	2.5	2.2	
European Commission (NOV 2018)	2.5	2.4	2.2
IMF (OCT 2018) <sup>2</sup>	2.5	2.3	2.0
OECD (SEP 2018) <sup>2</sup>	2.6	2.4	

<sup>1</sup> For Reuters and Consensus Economics surveys, in addition to the average value of the analysed replies (i.e. the median value), we also indicate the lowest and the highest values to illustrate the distribution of the data.

<sup>2</sup> Values calculated by the MNB; the projections of the named institutions for the relevant countries are adjusted with the weighting system of the MNB, which is also used for the calculation of the bank's own external demand indices. Certain institutions do not prepare forecast for all partner countries.

<sup>3</sup> As a percentage of GDP.

<sup>4</sup> With complete cancellation of free reserves.

Source: Consensus Economics, European Commission, IMF, OECD, Reuters poll

**47. Domestic financial developments**  
*Overview*

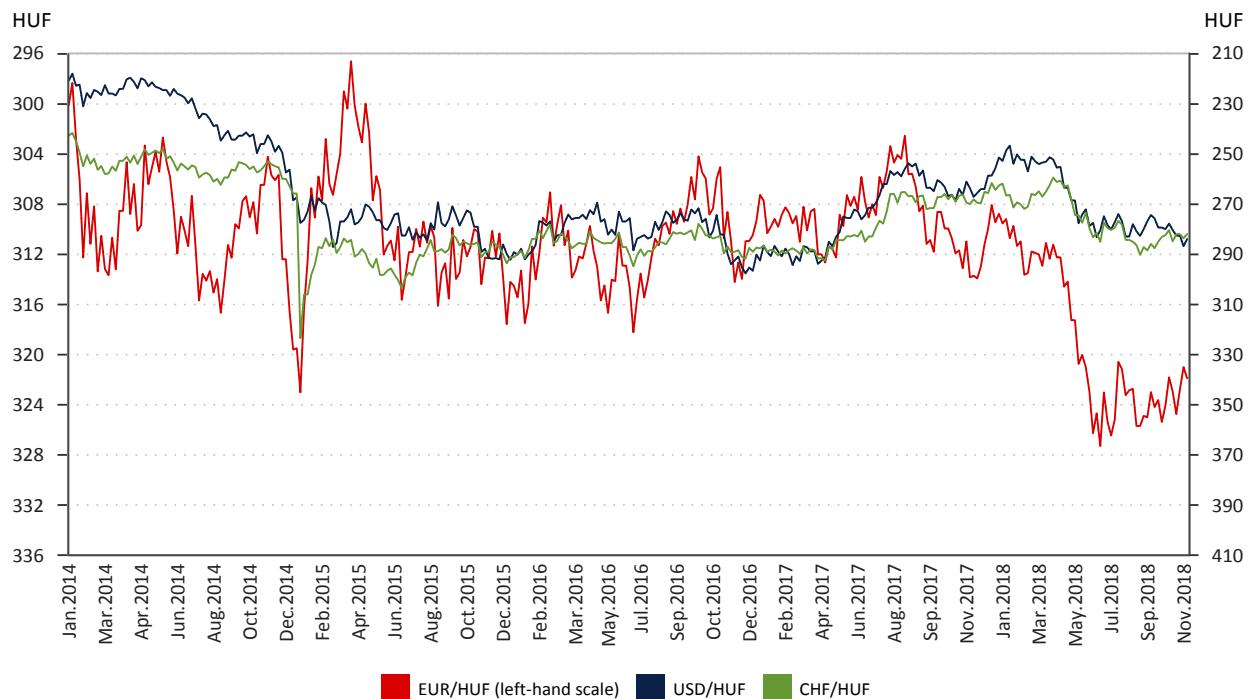
Indicator	One month ago	One week ago	Current
HUF/EUR spot exchange rate	322.7	321.0	321.9
Skewness of expectations on HUF/EUR exchange rate	1.06	1.05	1.05
HUF-positions of foreign investors (HUF billions)	-2560	-2463	-2460
Forward positions of domestic investors (HUF billions)	1879	1724	1781
MNB base rate (%)	0.90	0.90	0.90
Expected short-term interbank rate at the end of the year (%)*	0.41	0.22	0.24
3-months interbank rate (%)	0.22	0.19	0.18
3x6 FRA rate (%)	0.20	0.20	0.17
3 month T-bill yield (%)	-0.03	-0.07	-0.06
5 year T-bond yield (%)	3.22	3.06	3.04
Slope of yield curve (10Y-1Y, bp)	352	336	332
O/N FX-swap spread (bp)	-2	-0	3
3-month FX-swap spread (bp)	3	19	-0
5-year FX-swap spread (bp)	-13	-12	-12
5-year CDS spread (bp)	86	88	88
5x5 government bond spread (bp)**	266	260	248
Average spread of USD-denominated government bonds (bp)	134	132	138
Foreign holdings of HUF-government bonds (HUF billion)	3853	4080	4063

Notes:

\* Based on forward yield curve.

\*\* Over German yield.

#### 48. Developments in HUF exchange rate



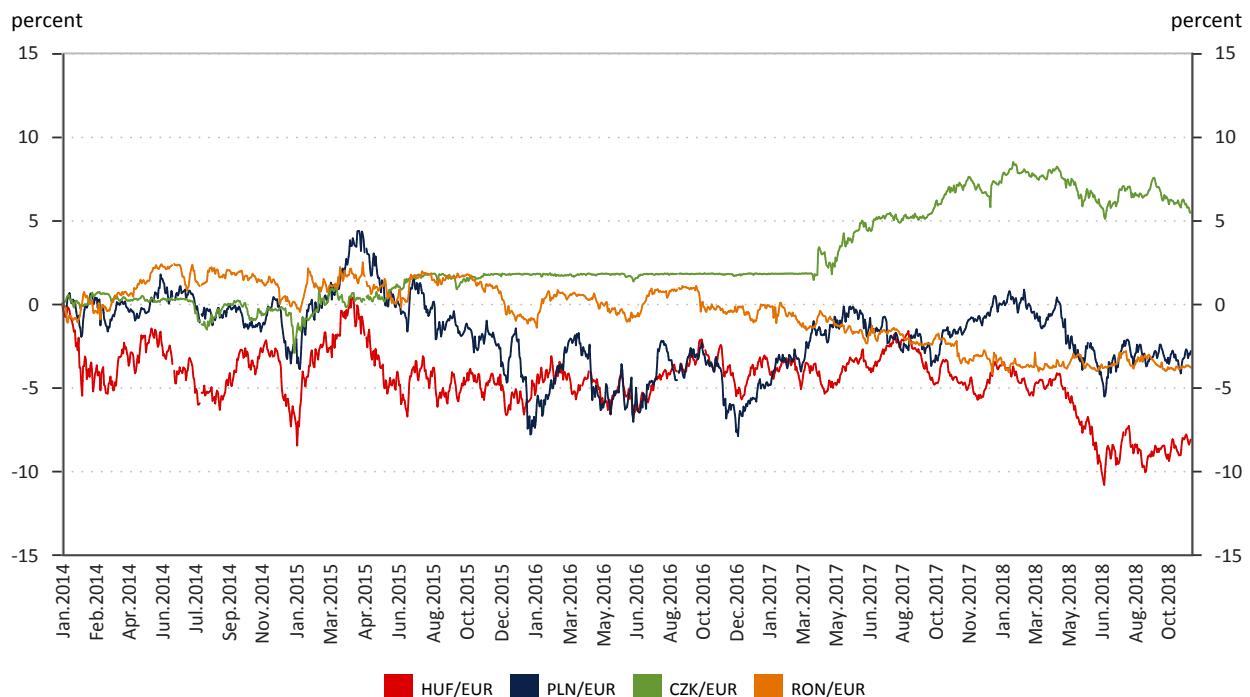
Source: Datastream

Note: reverse scale, daily observations.

#### 49. Developments in HUF exchange rate (last month)

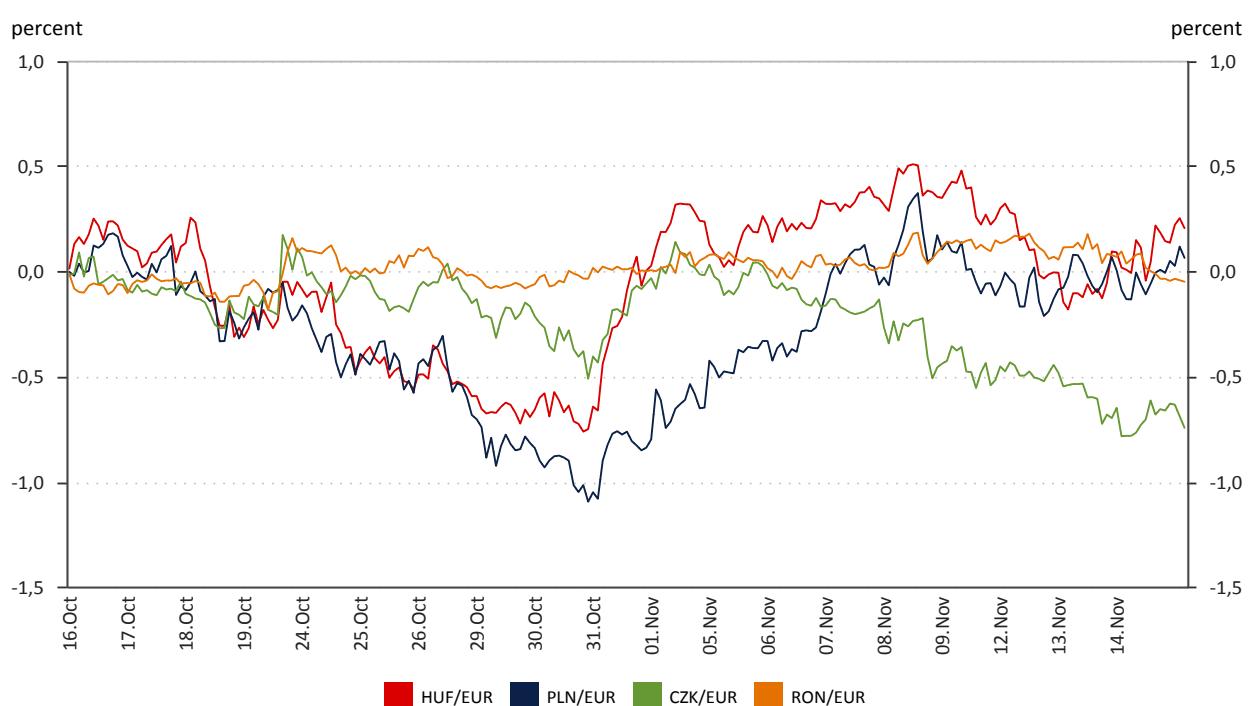


Source: Thomson Reuters  
Note: reverse scale.

**50. Emerging markets exchange rate**

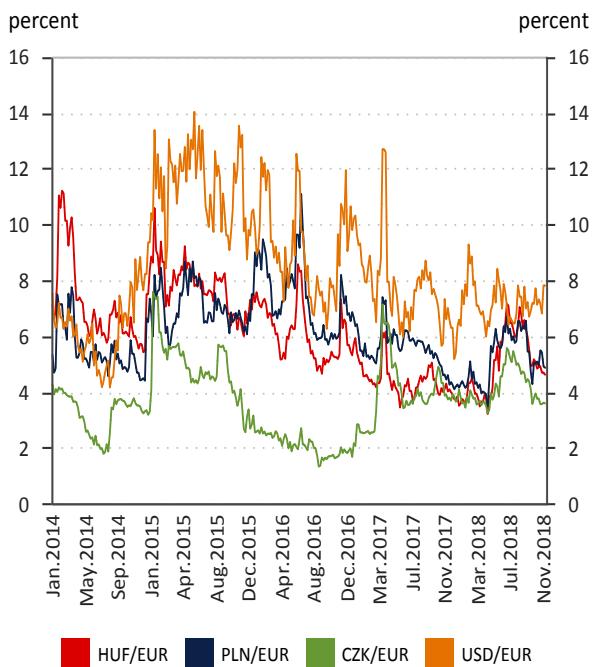
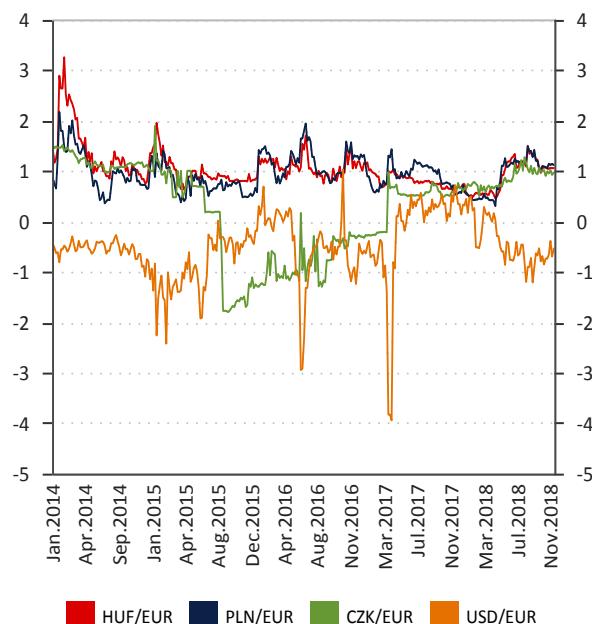
Source: Thomson Reuters

Note: cumulative change. Positive values mean appreciation.

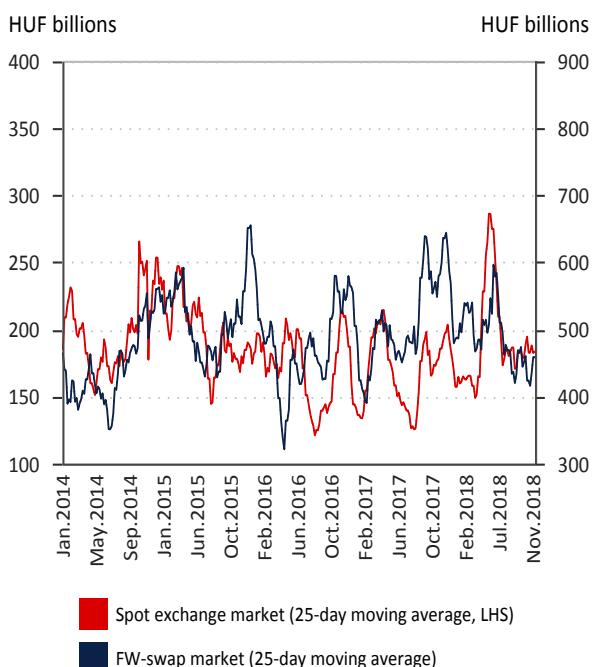
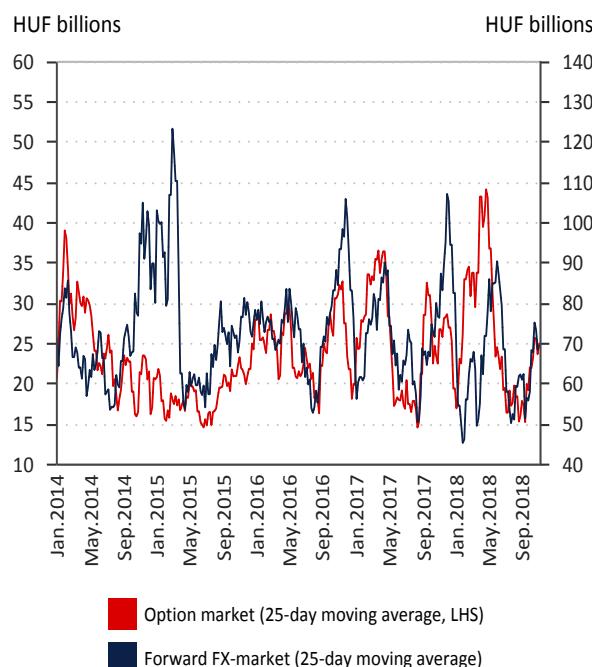
**51. Emerging markets exchange rate (last month)**

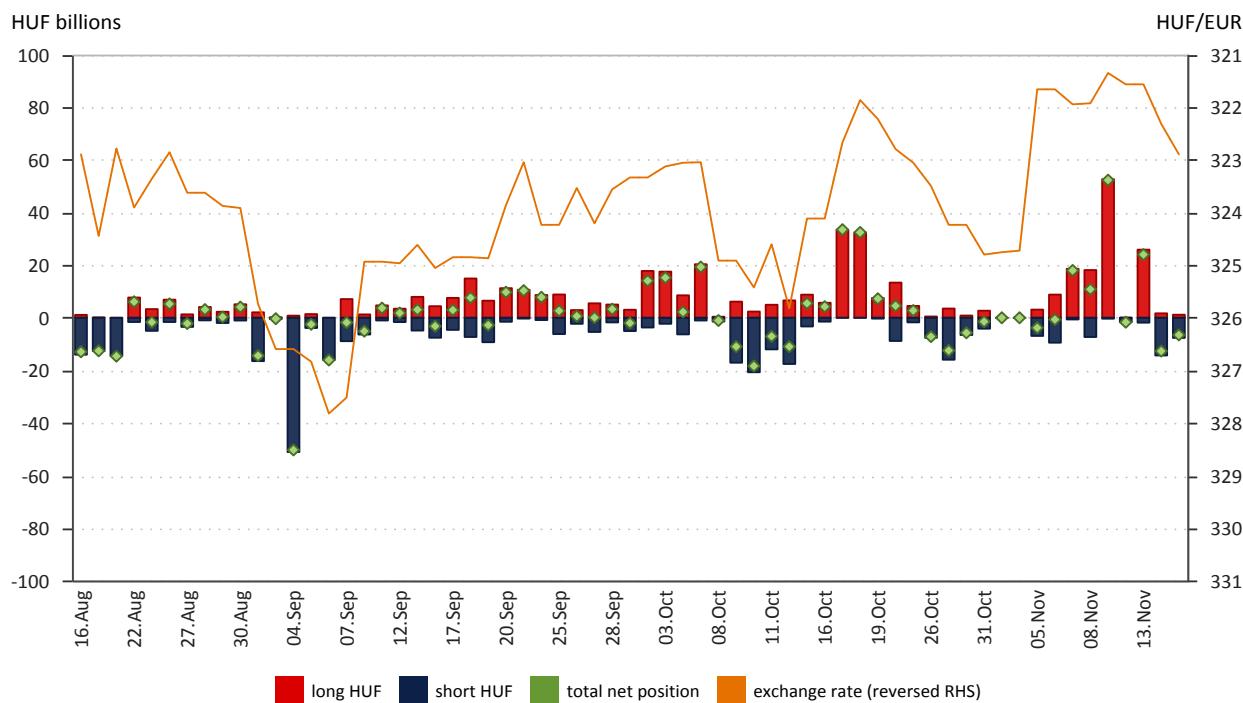
Source: Thomson Reuters.

Note: cumulative change, negative value means depreciation of the local currency.

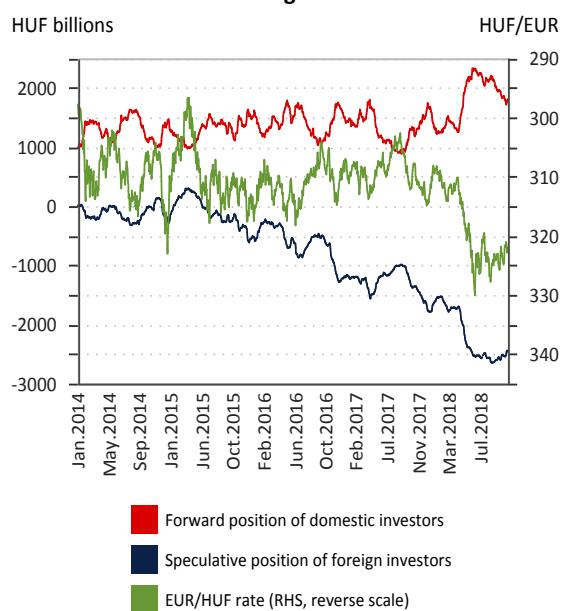
**52. Volatility of exchange rate expectations****53. Skewness of exchange rate expectations**

Source: Bloomberg  
Notes: based on option quotes for 1-month 25D risk reversal; skewness=RR/Volatility\*10. Risk reversal can be regarded as a nominal indicator for the skewness of the distribution of exchange rate expectations, while skewness eliminates the effect of changes in volatility.

**54. Turnover on the spot and the FX-swap market****55. Turnover on the forward and option market**

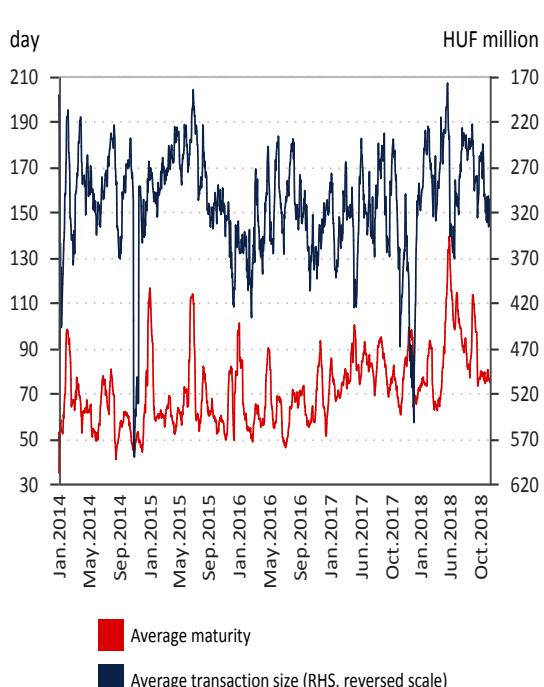
**56. Open FX-positions of non-residents in HUF**

Source: MNB.

**57. Cumulated positions of non-residents in HUF and the EURHUF exchange rate**

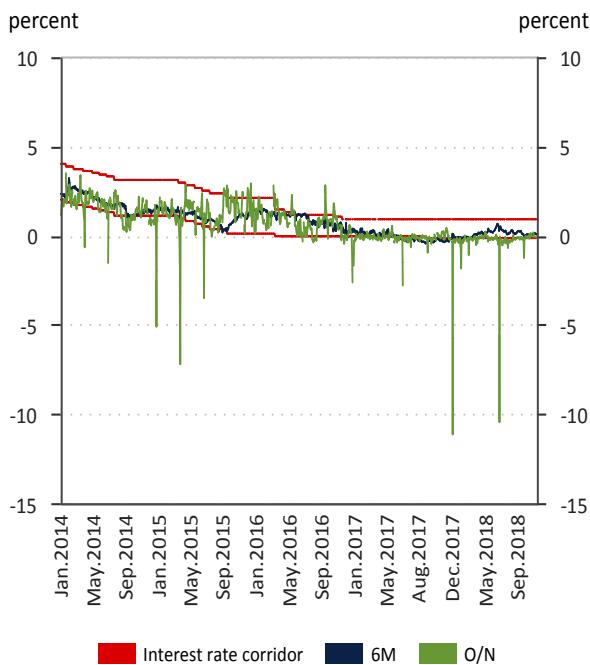
Source: MNB

Note: Based on daily reports of credit institutions. Due to the nature of the daily reports of banks on FX transactions the components of the statistic do not close to zero. As a result information contained in the data series is relevant mainly to evaluate the direction of short-term fluctuation. The MNB does not hold responsibility for the accuracy of the data. Revision due to reporting error and non-standard transactions might lead to subsequent modification of the data series.

**58. Forward agreements of non-financial institutions**

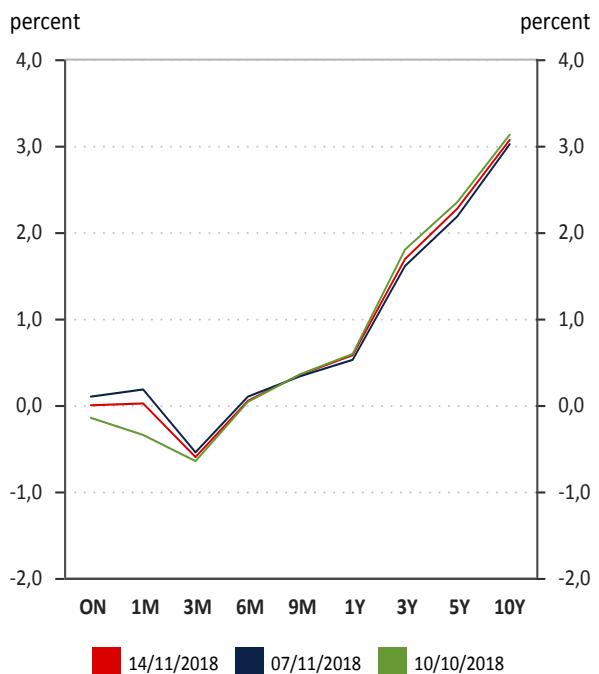
Source: MNB

Note: 20-day moving averages.

**59. Implied HUF rates on FX-swap market**

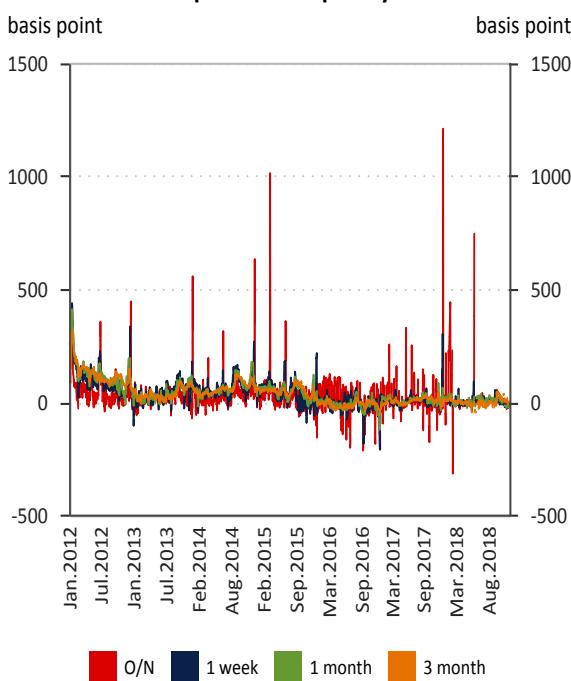
Source: MNB, Thomson Reuters

Note: implied HUF yields based on trades in case of O/N maturity and based on USD/HUF FX-swap quotes provided by Thomson Reuters in the cases of 6-month maturity.

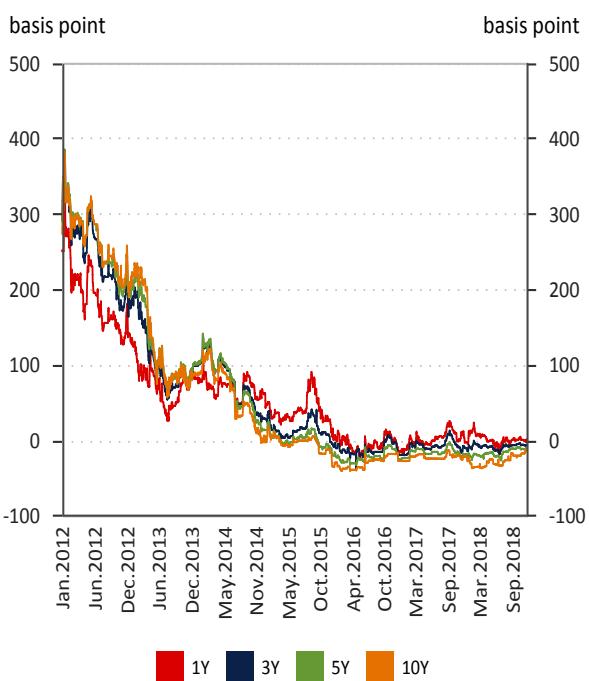
**60. Implied yield curve on FX-swap markets**

Source: MNB, Thomson Reuters.

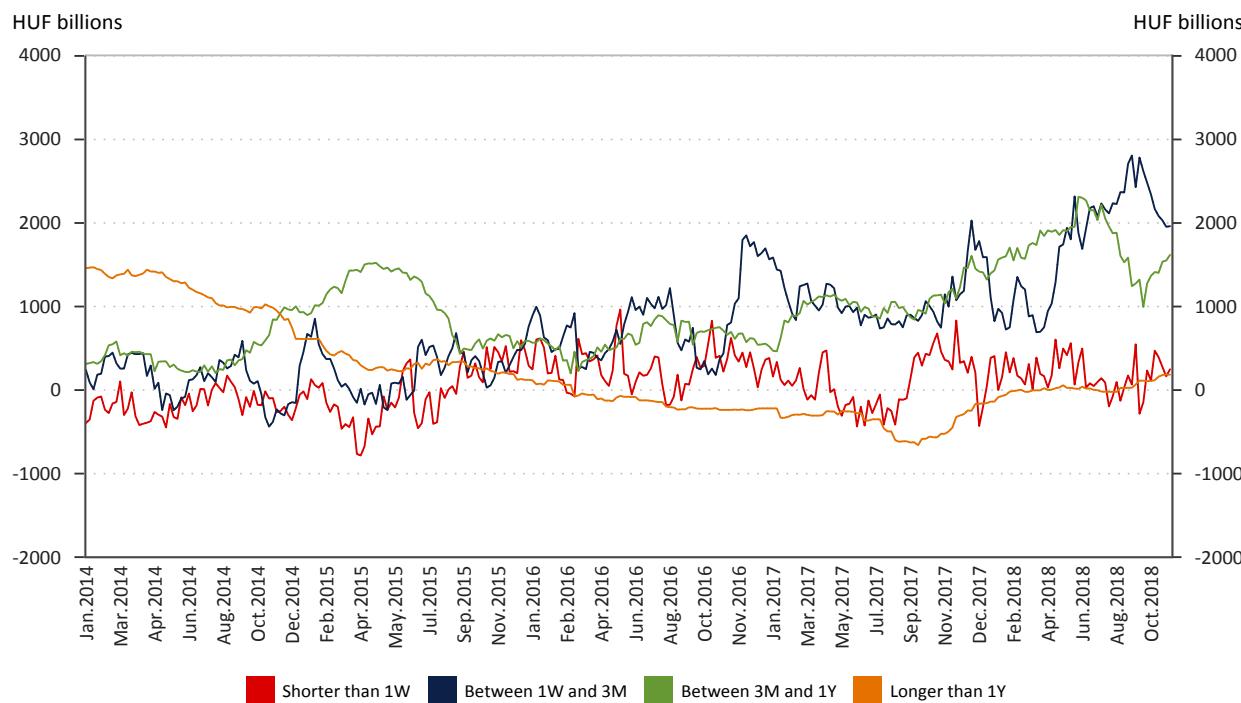
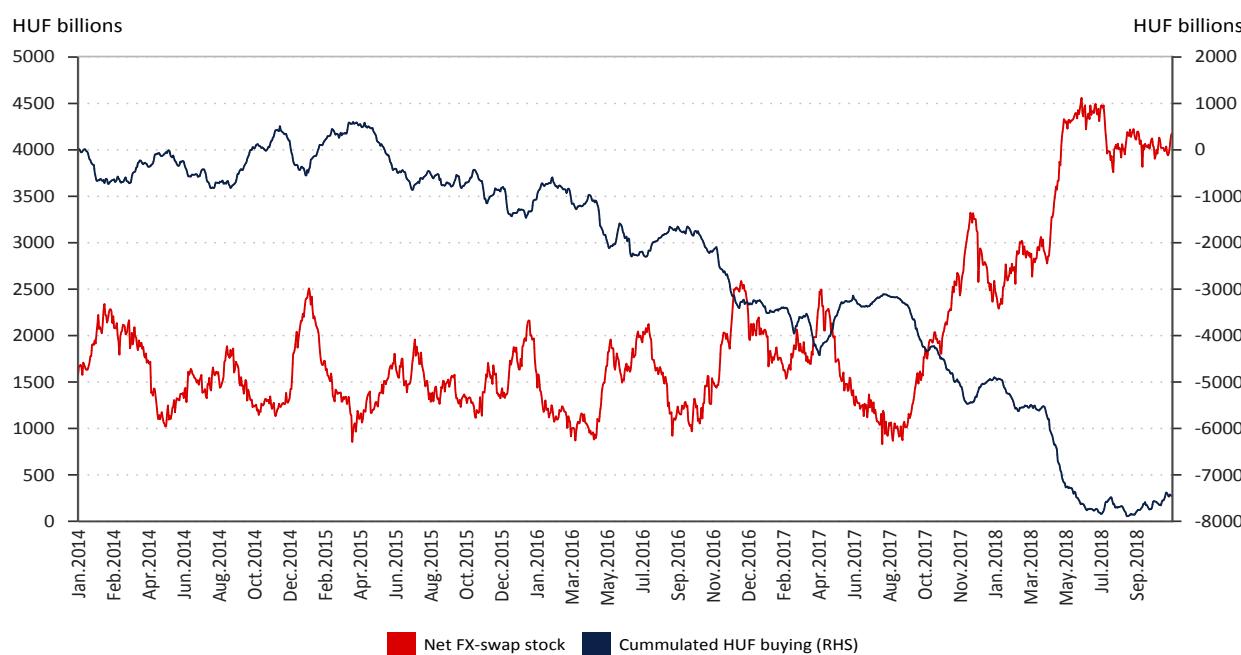
Notes: Based on USD/HUF swap quotes.

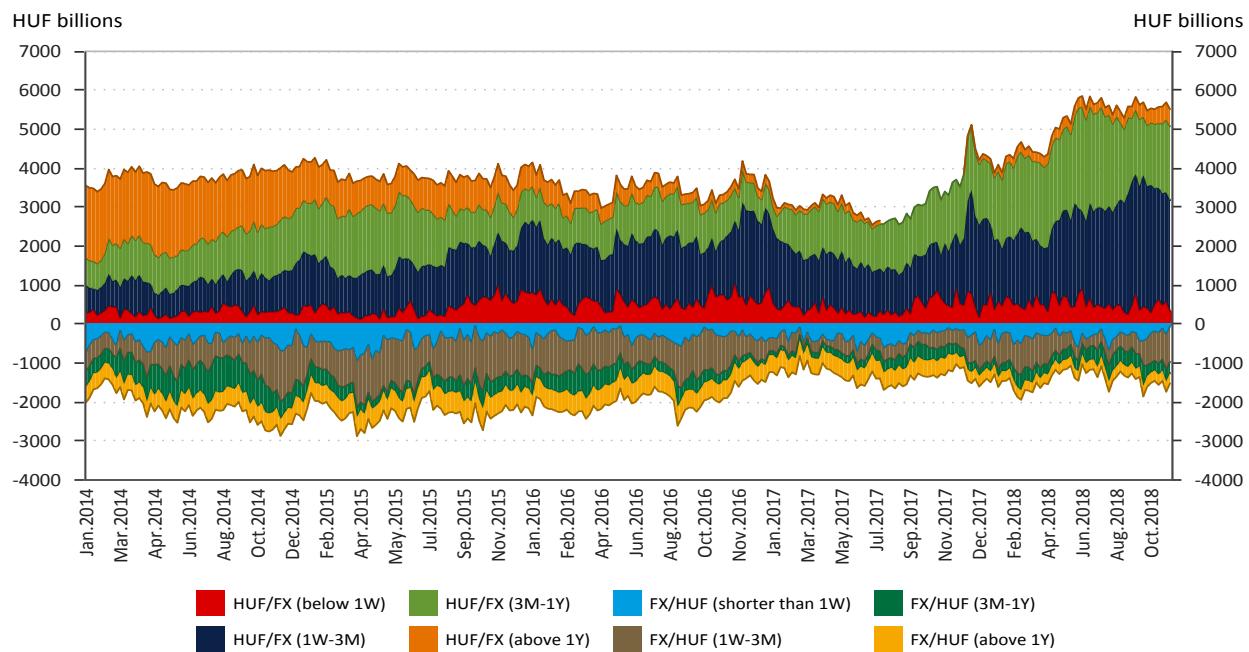
**61. Difference between short-term interbank yields and FX-swap market implied yields**

Source: Thomson Reuters.

**62. Development of the EUR/HUF basis swap spread**

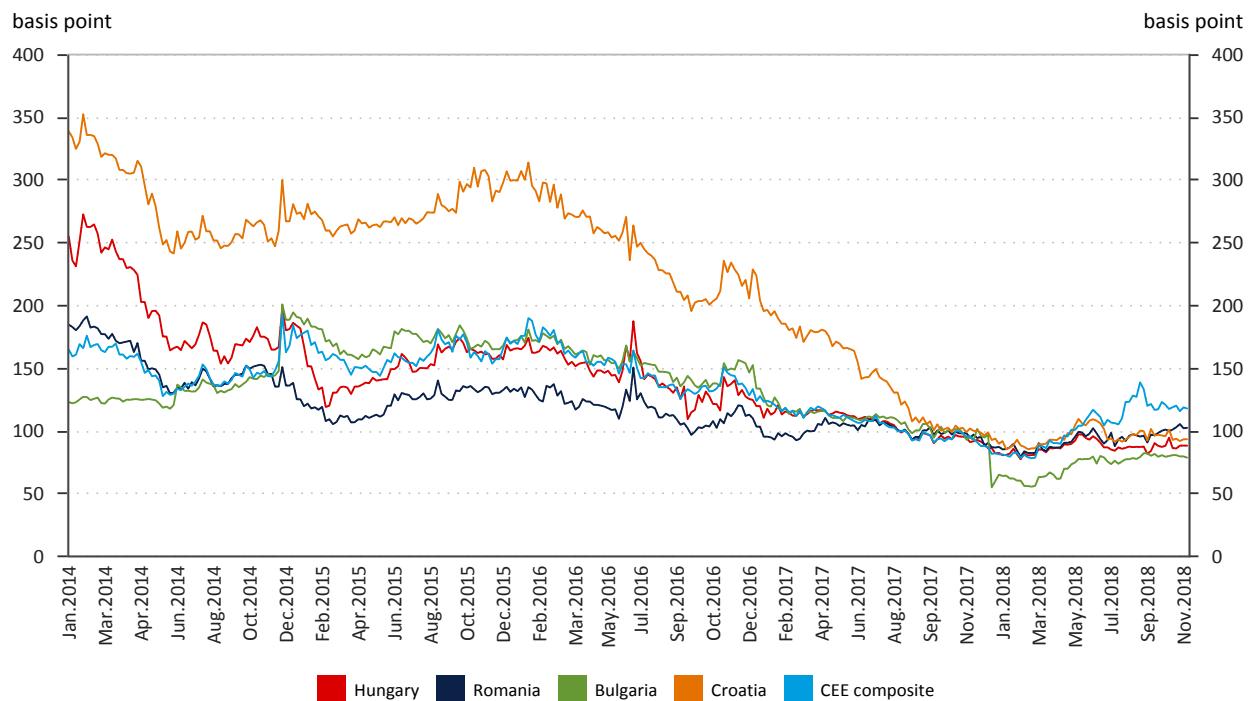
Source: Bloomberg.

**63. Net FX-swap stock of non-residents by maturity****64. Forint FX-swap stock and cumulated HUF purchase of non-residents**

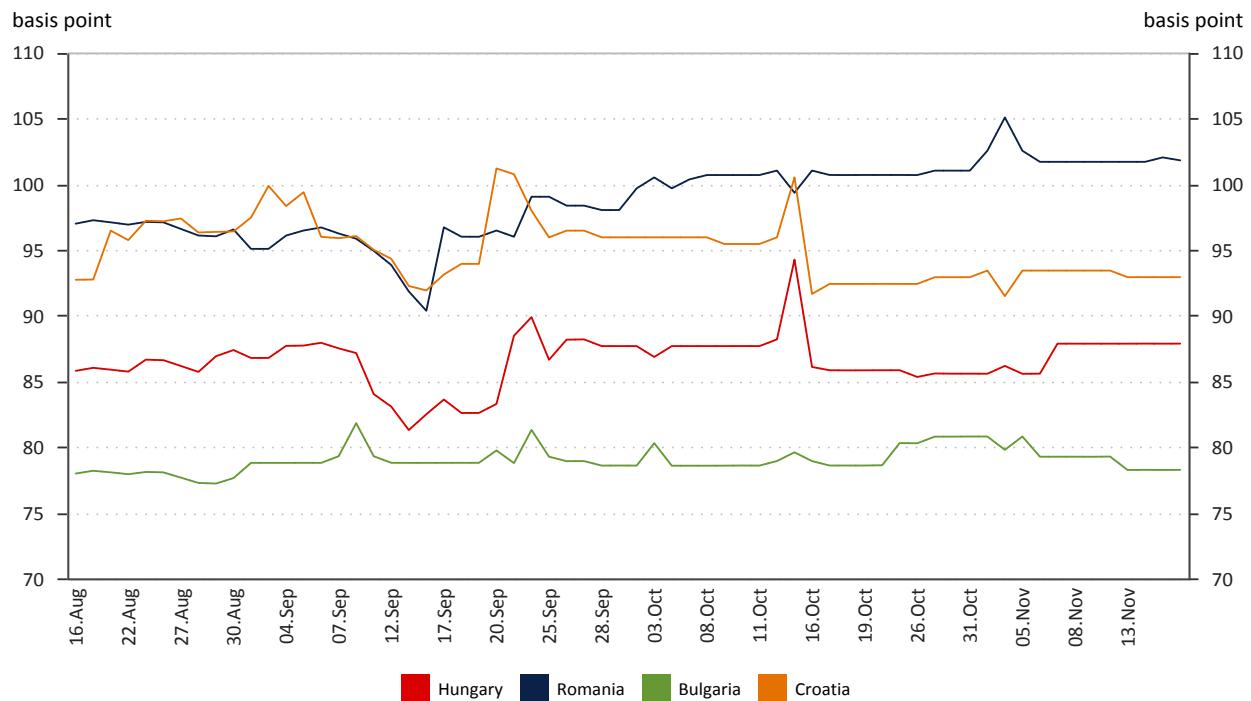
**65. Gross FX-swap stocks of foreign investors by maturity**

Source: MNB

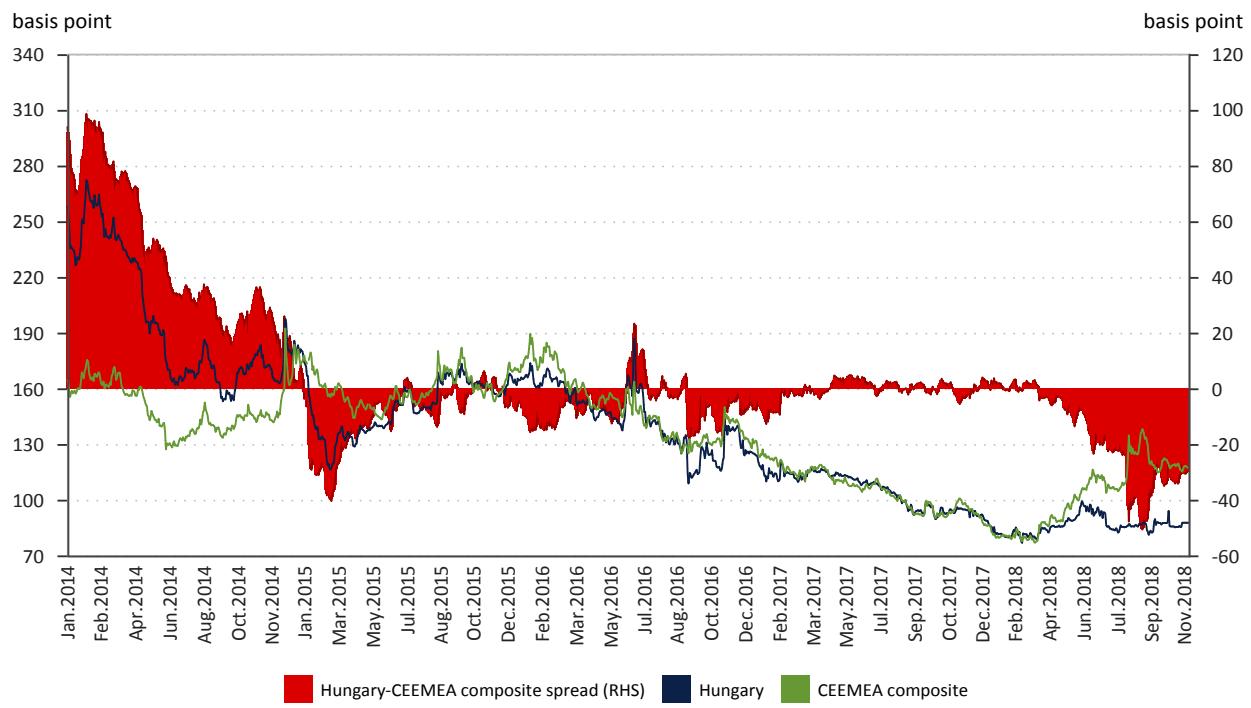
Note: due to the nature of daily reports by banks on FX transactions, the components of the FX transactions statistic do not close to zero. As a result, the information contained in the data series on net forint purchase of non-resident investors - and its components - is relevant mainly to evaluate the direction of short-term fluctuations. An increase in the swap stock stands for swaps with a long forint spot leg. Based on the daily fx-reports of credit institutions. Calculated from swap transactions between credit institutions and non-resident investors. The MNB does not hold responsibility for the accuracy of the data. Revisions due to reporting errors and non-standard transactions might lead to significant subsequent modifications of the data series.

**66. 5 year sovereign CDS spreads in CEE**

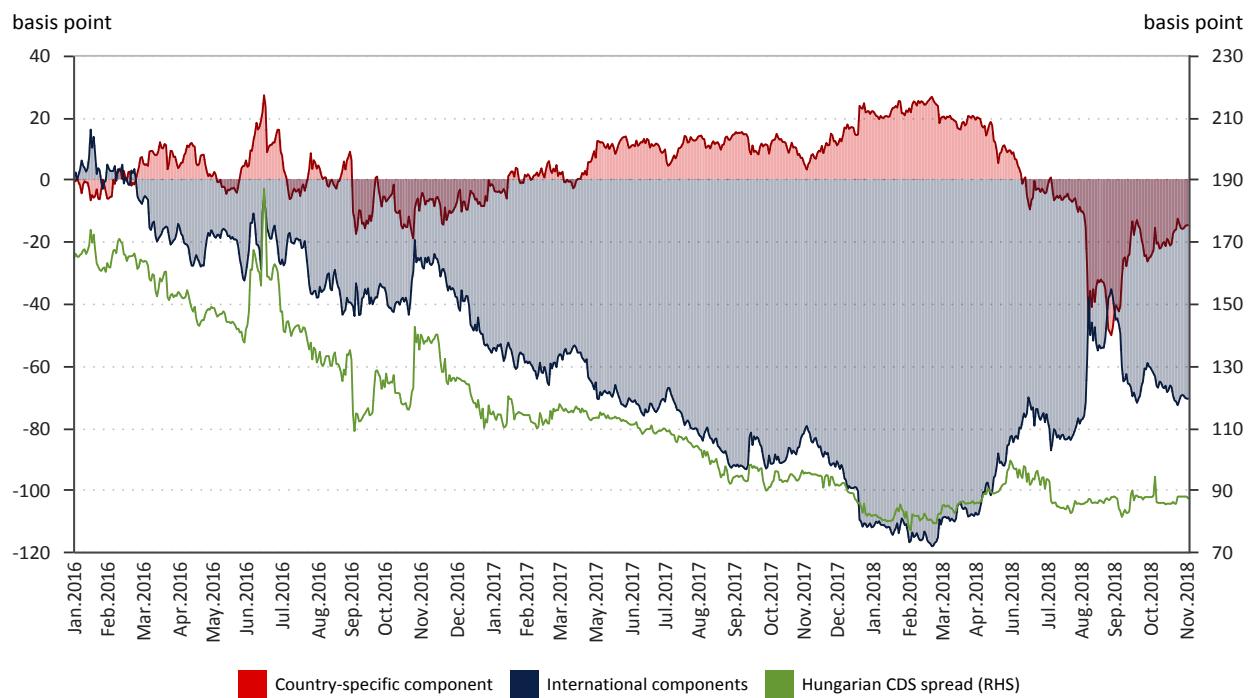
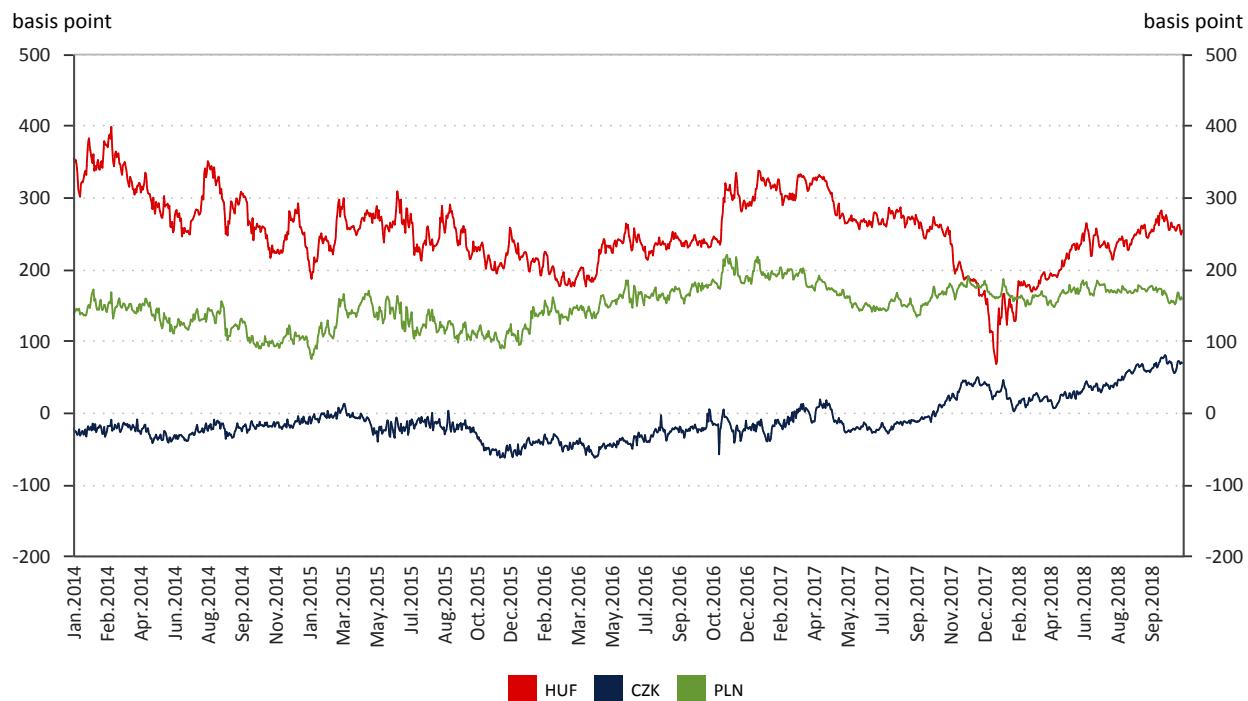
Source: Thomson Reuters.

**67. 5 year sovereign CDS spreads in emerging markets (last month)**

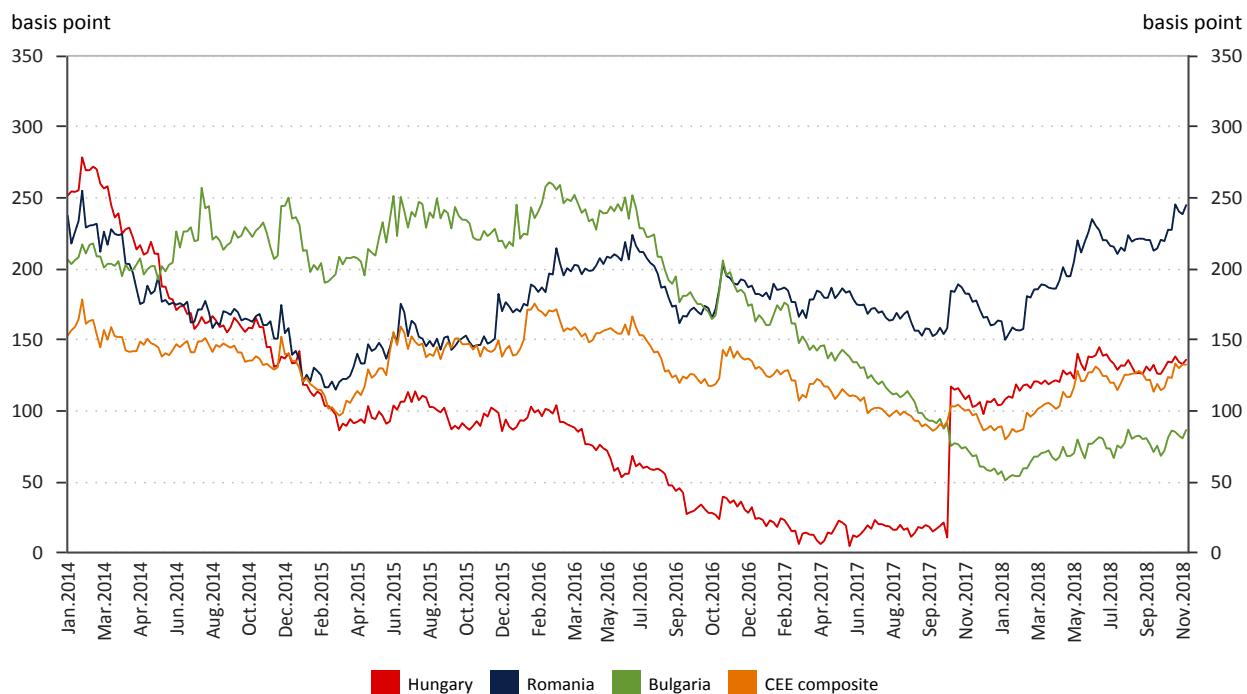
Source: Thomson Reuters

**68. 5 year sovereign CDS spread in Hungary versus CEEMEA composite index**

Source: Thomson Reuters.

**69. Components of Hungarian 5 year sovereign CDS****70. 5 year implied spreads over euro rates in 5 year time**

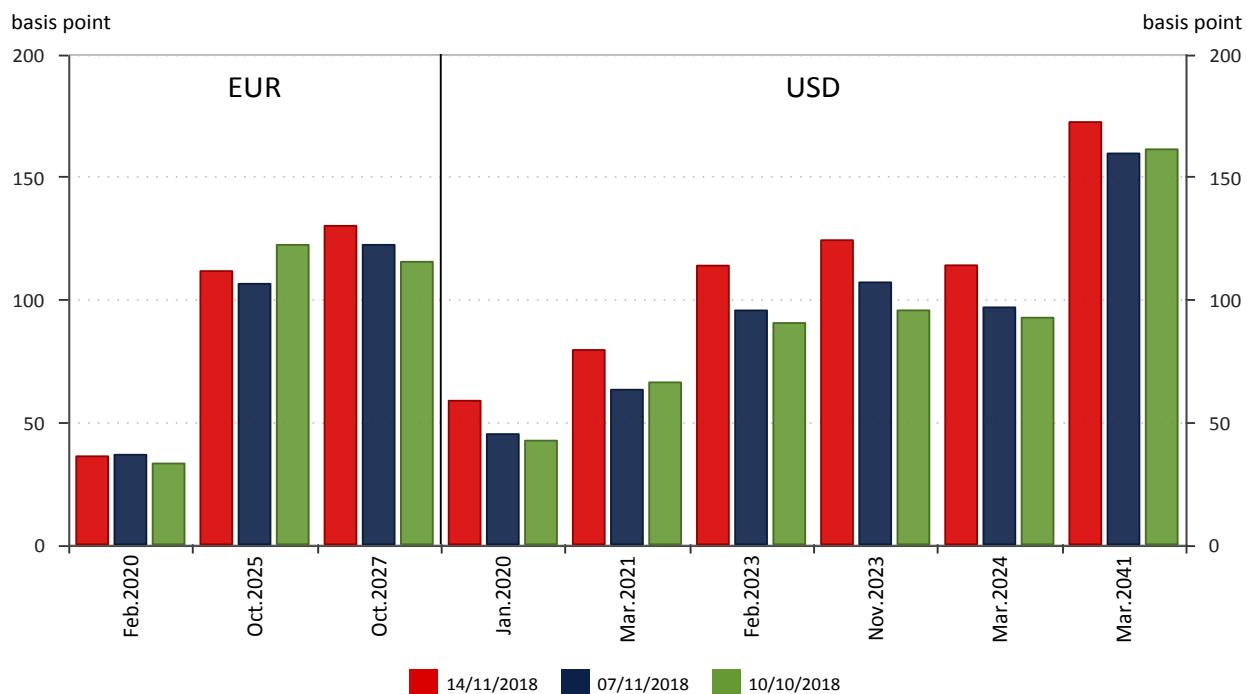
### 71. Emerging markets FX denominated government bond spreads



Source: Thomson Datastream.

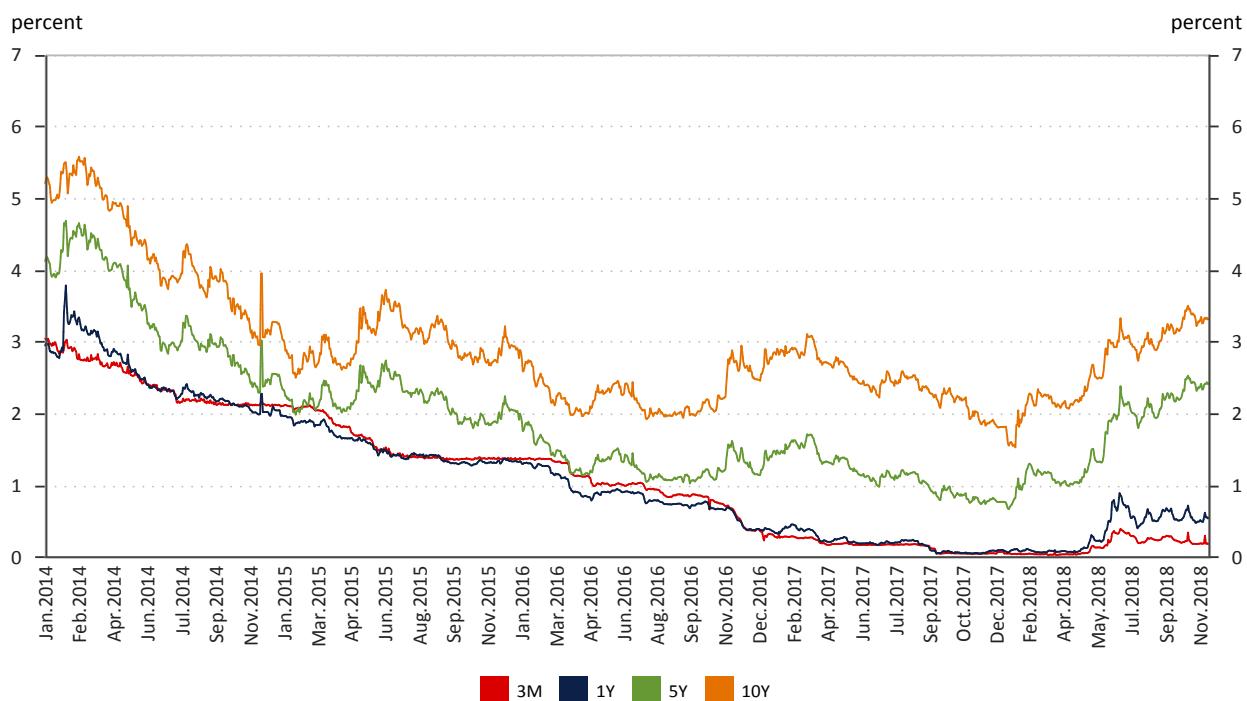
Notes: calculated from JP Morgan Euro EMBI data. The series are differences between euro denominated (liquid) foreign currency bond yields and euro zero coupon yields of the corresponding maturities. Different durations may result in significant difference in the level of spreads.

### 72. Domestic FX-government bond

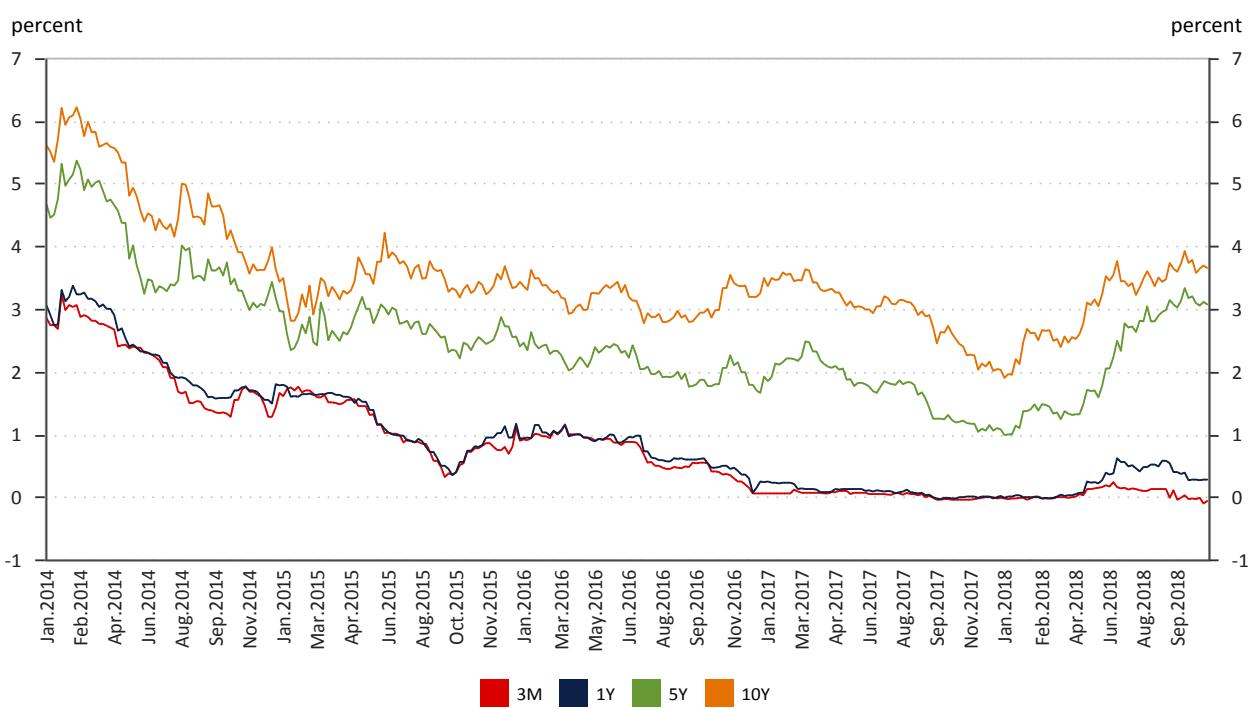


Source: Bloomberg.

Notes: Spread between EUR and USD denominated FX-bonds and the equivalent US T-bond or euro yields chosen by Bloomberg. We present bonds grouped by currency in order of maturity.

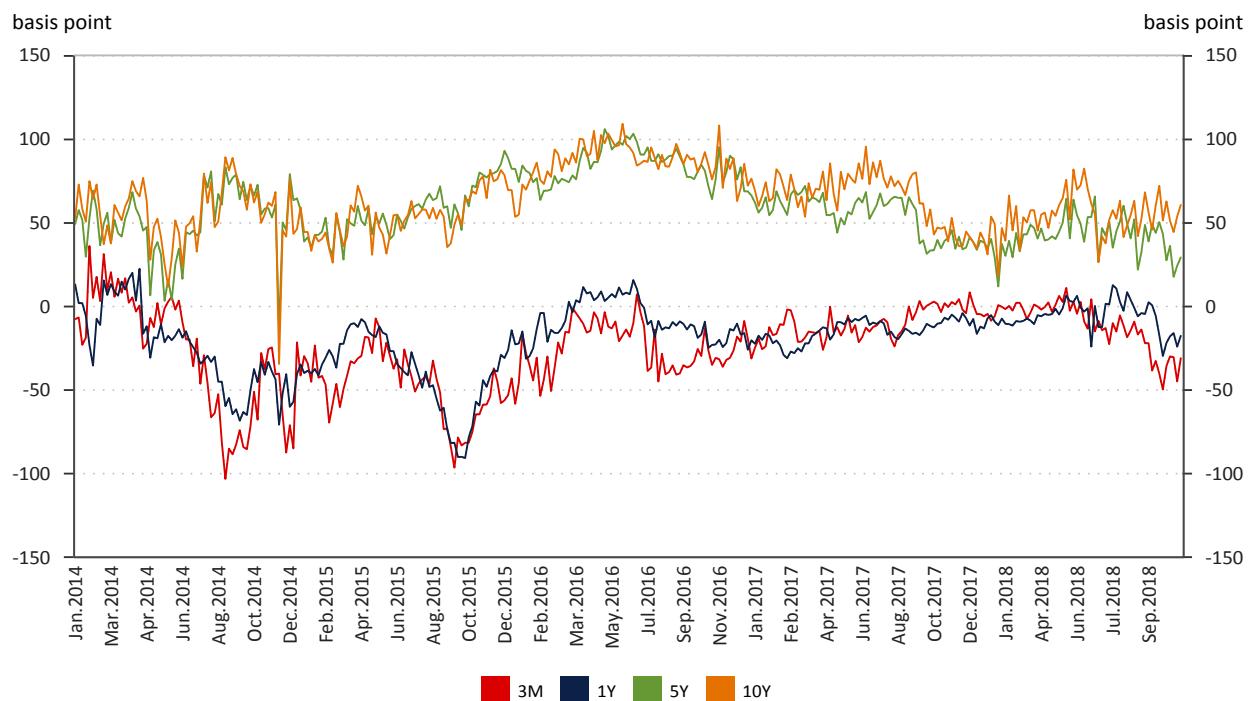
**73. Interbank yields**

Source: Thomson Reuters

**74. Yields of benchmark government securities**

Source: Thomson Reuters.

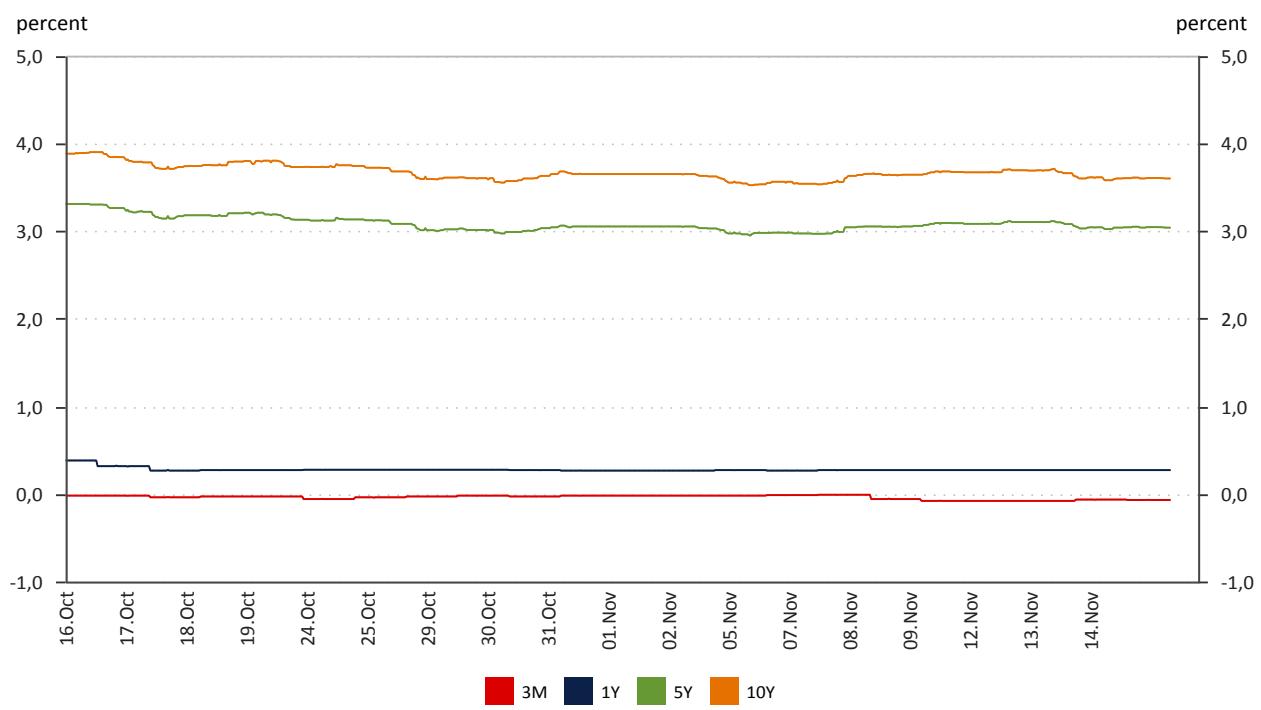
### 75. Government securities - interbank yield spreads



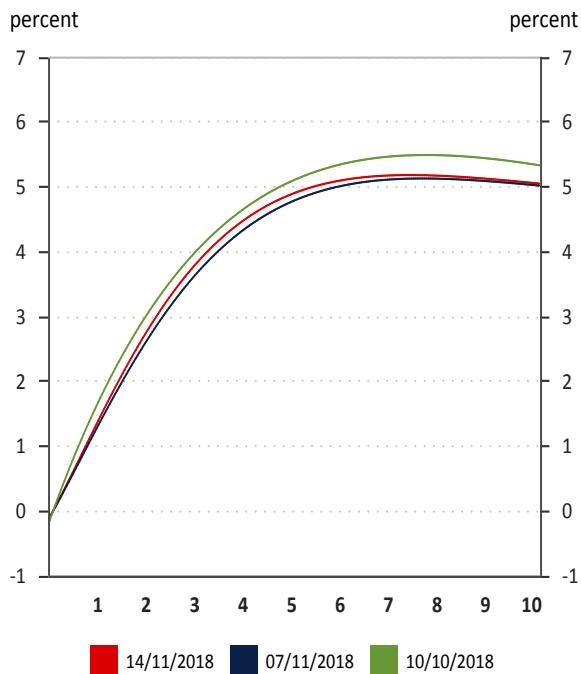
Source: Thomson Reuters

Note: Spread between the benchmark government bond yield of the given maturity and the interbank rates.

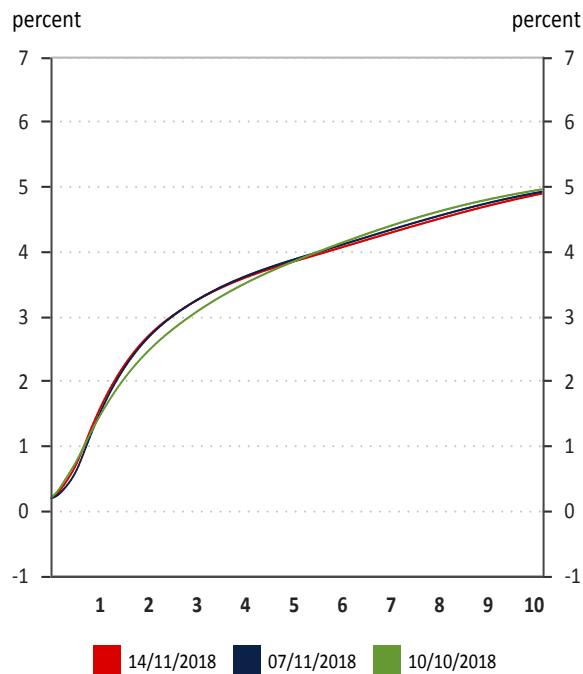
### 76. Yields of benchmark government securities (last month)



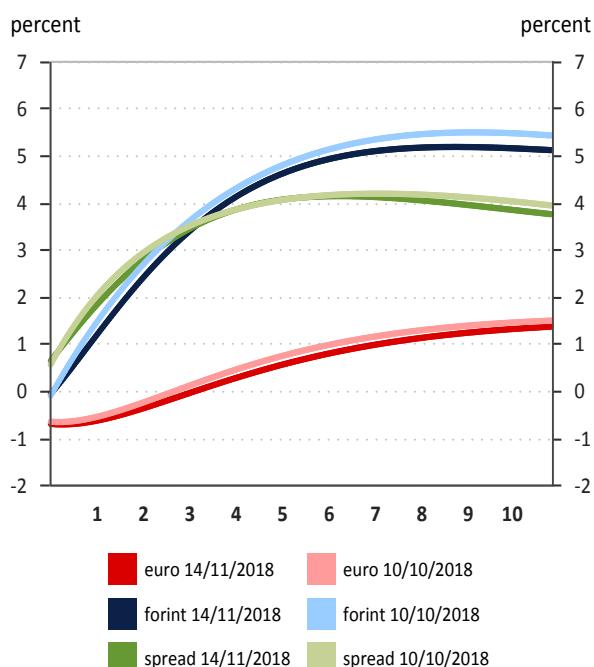
Source: Thomson Reuters.

**77. Implied 3 month forward interest rate yield curve  
(based on government securities yields)**


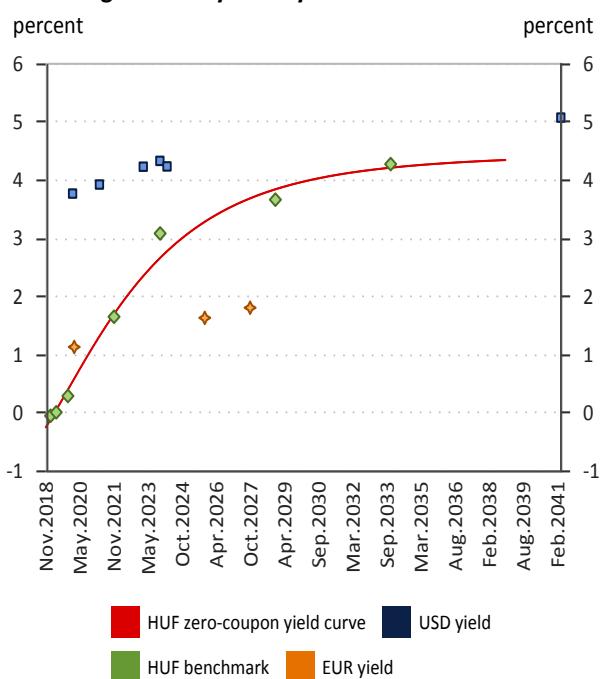
Source: MNB, ÁKK. Note: calculated by Svensson method by MNB. X axis shows maturities, in years.

**78. Implied 3 month forward interest rate yield curve  
(based on interbank yields)**


Note: Calculated from FRA-s, and IRS by spline method. X axis shows maturities, in years.

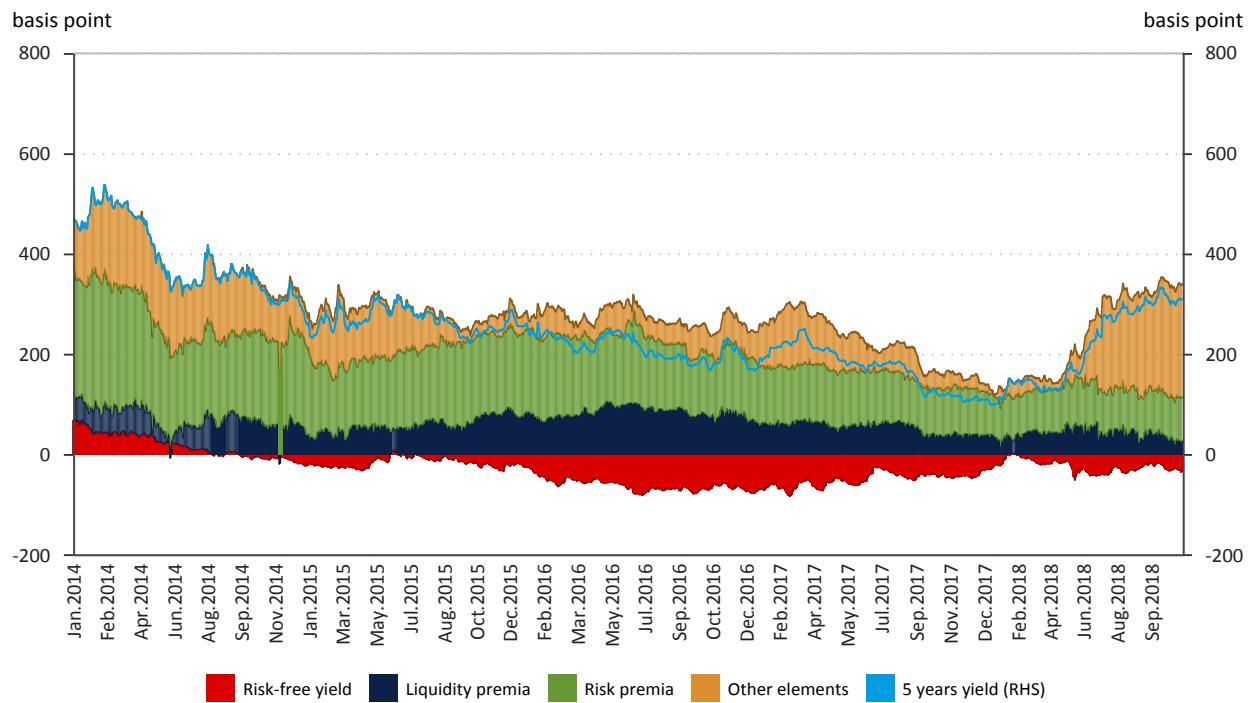
**79. Spread between 3-month forward yields in EUR and HUF**


Source: Thomson Reuters  
Note: X axis shows maturities, in years. Estimated by the ECB using the Svensson technique, based on AAA-rated euro area central government bonds.

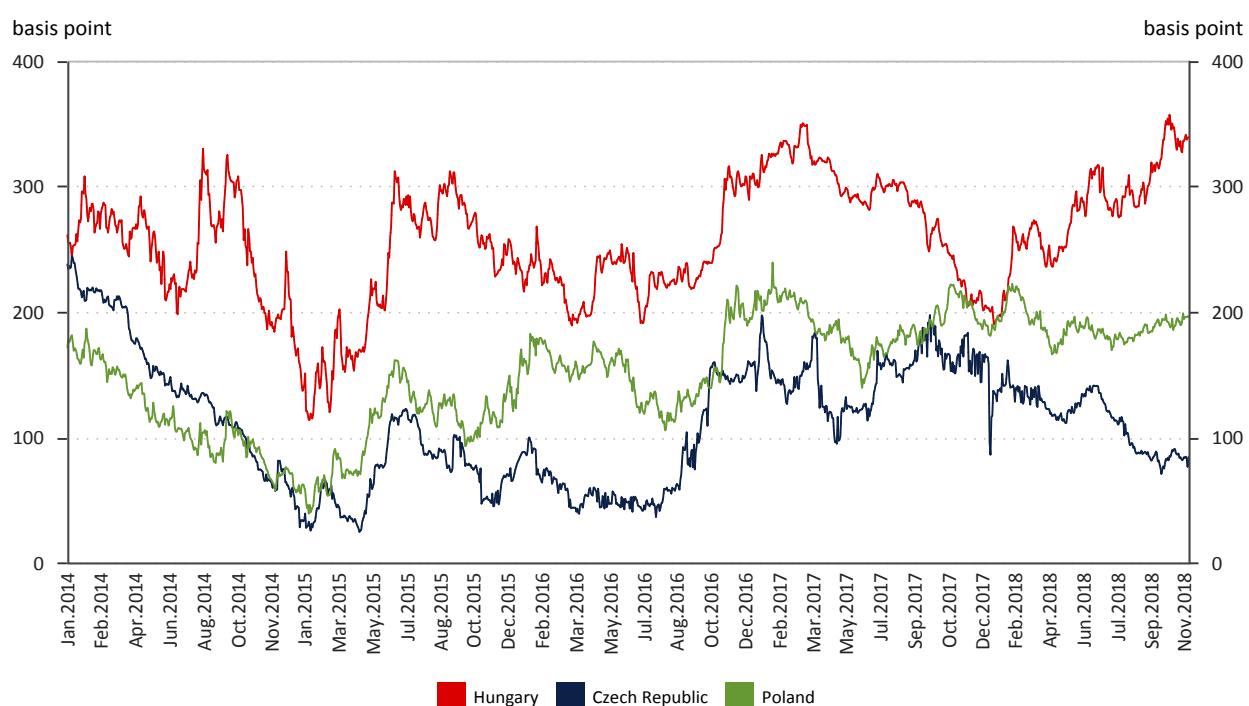
**80. Hungarian government bond yield curve and foreign currency bond yields**


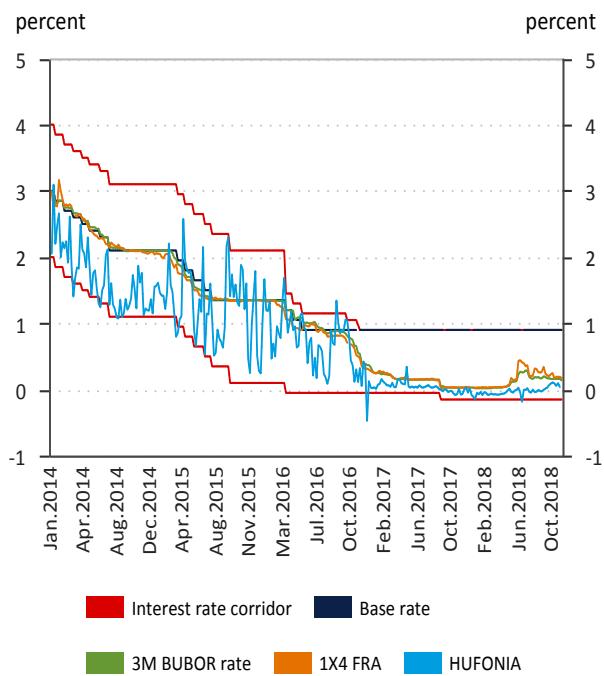
Source: MNB, Bloomberg.

### 81. Decomposition of 5 year government bond yield

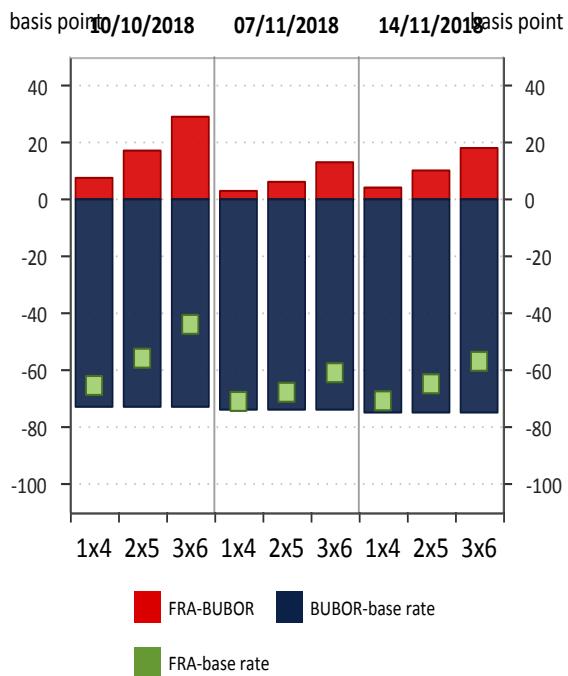


### 82. Slope of yield curve in CEE

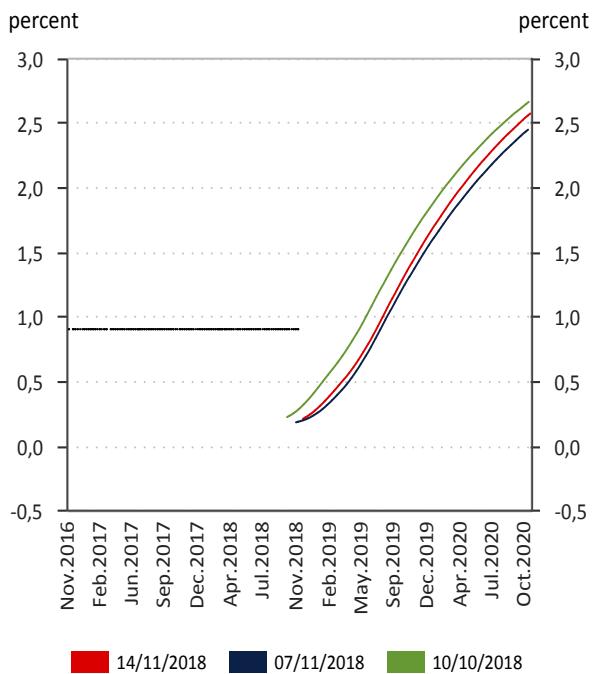


**83. MNB base rate and money market rates**

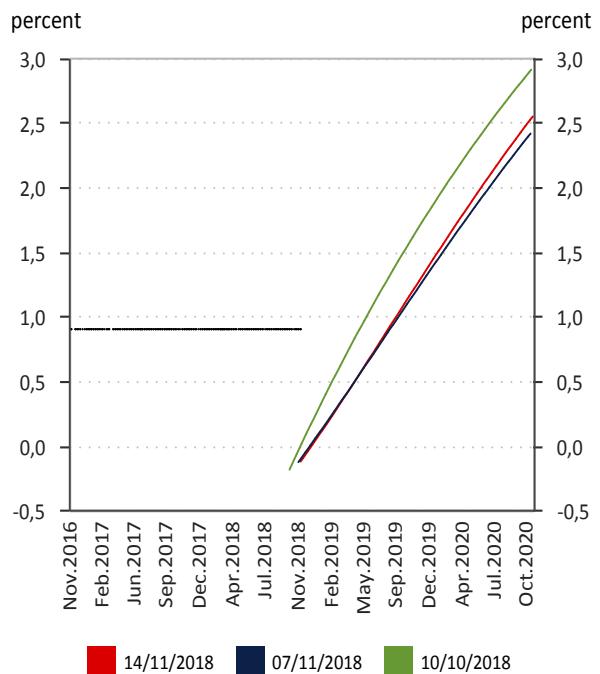
Source: Thomson Reuters, MNB

**84. Difference between the 3 month FRA quotes and the current base rate**

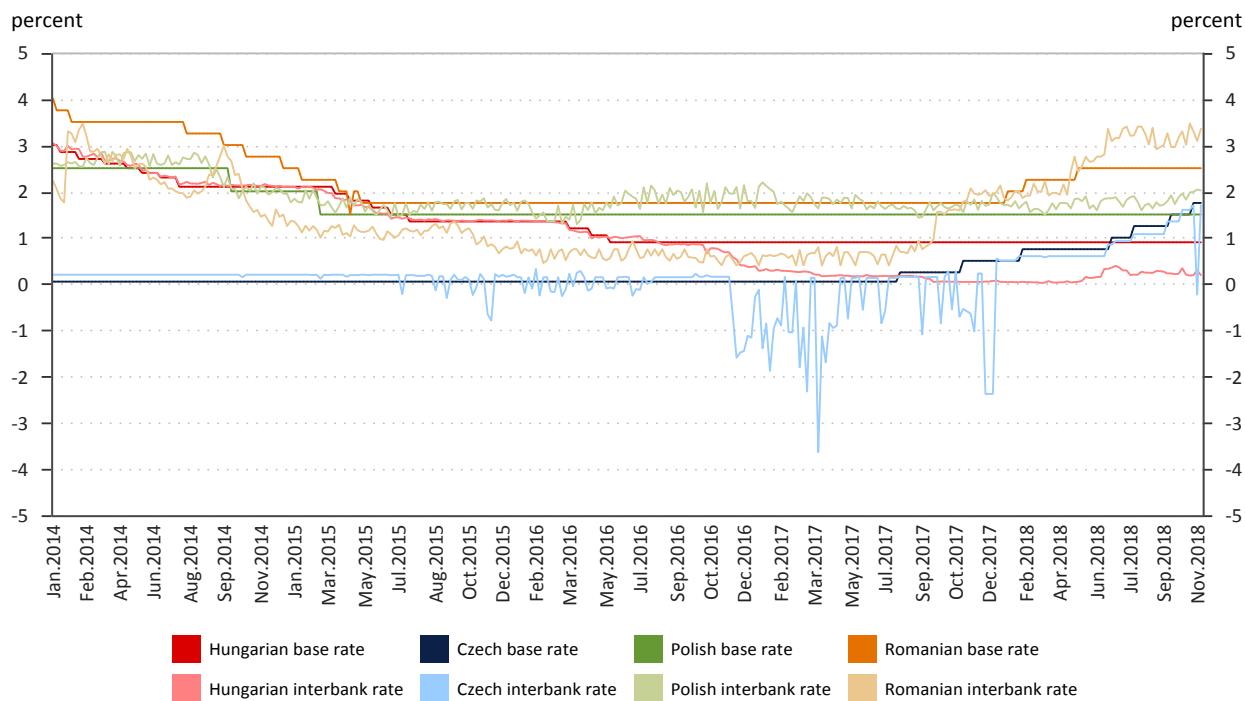
Source: Thomson Reuters, MNB.

**85. Implied 3 month forward interest rate curve (based on interbank yields)**

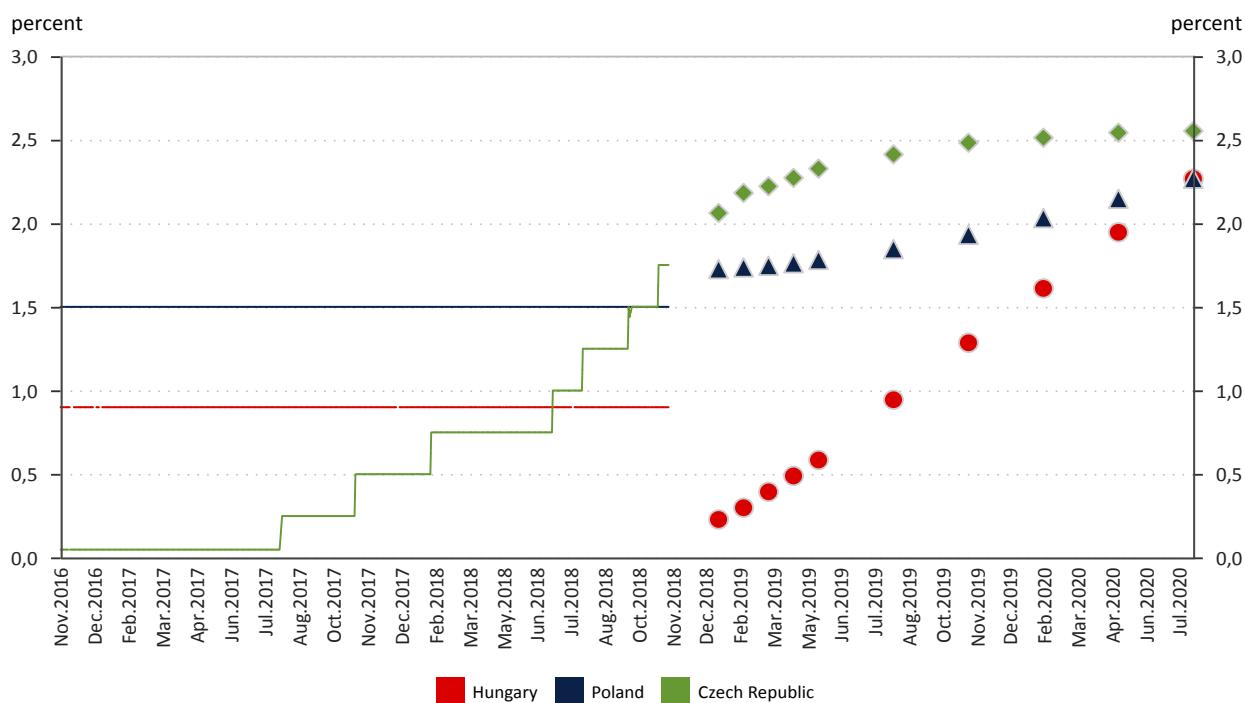
Source: MNB.

**86. Implied 3 month forward interest rate curve (based on government bond yields)**

Source: MNB.

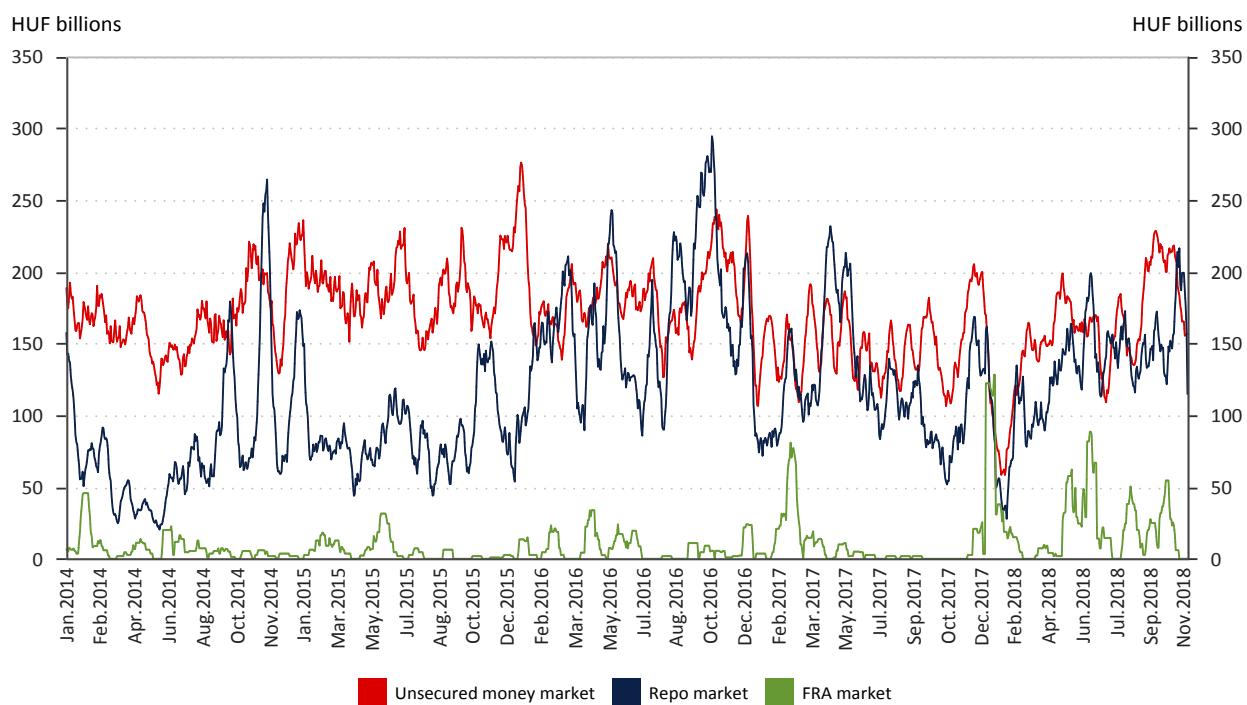
**87. Base rates and short term interbank rates in the region**

Source: Thomson Reuters.

**88. CEE base rates and forward rate agreements**

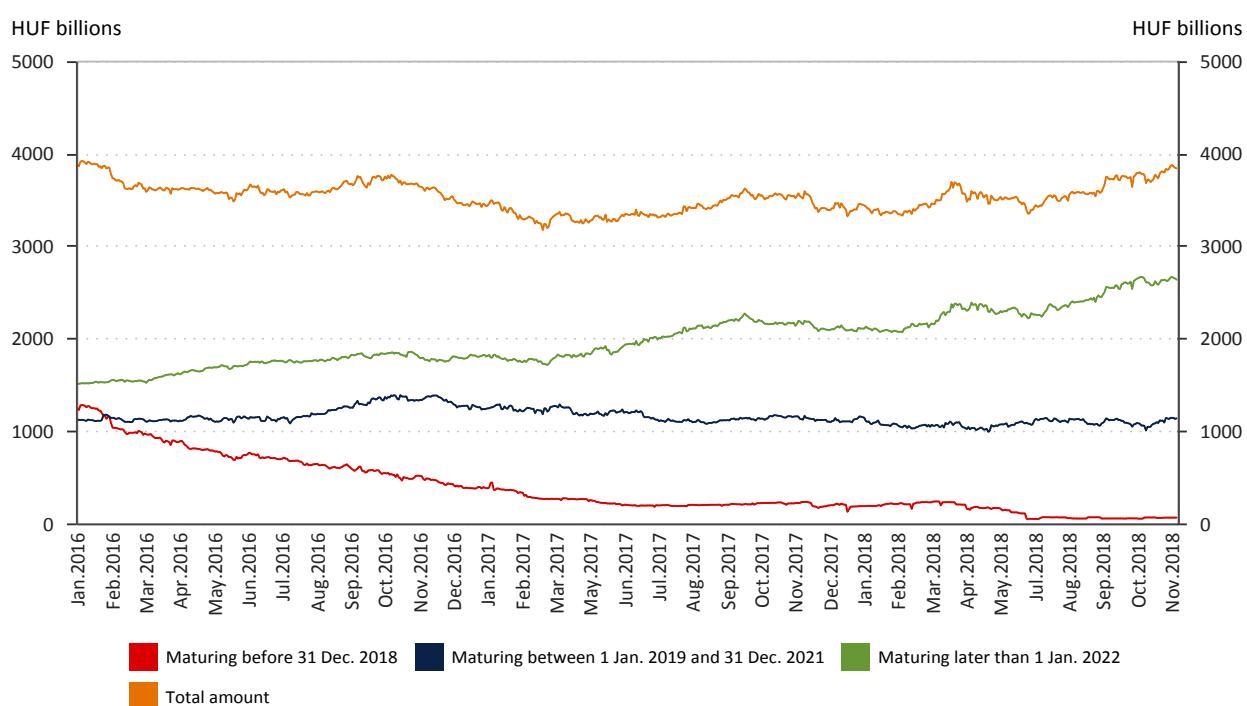
Source: Bloomberg

Note: Based on FRA transactions. Last update: (14/11/2018).

**89. Turnover on the interbank, HUF repo, and FRA markets (25 day moving average)**

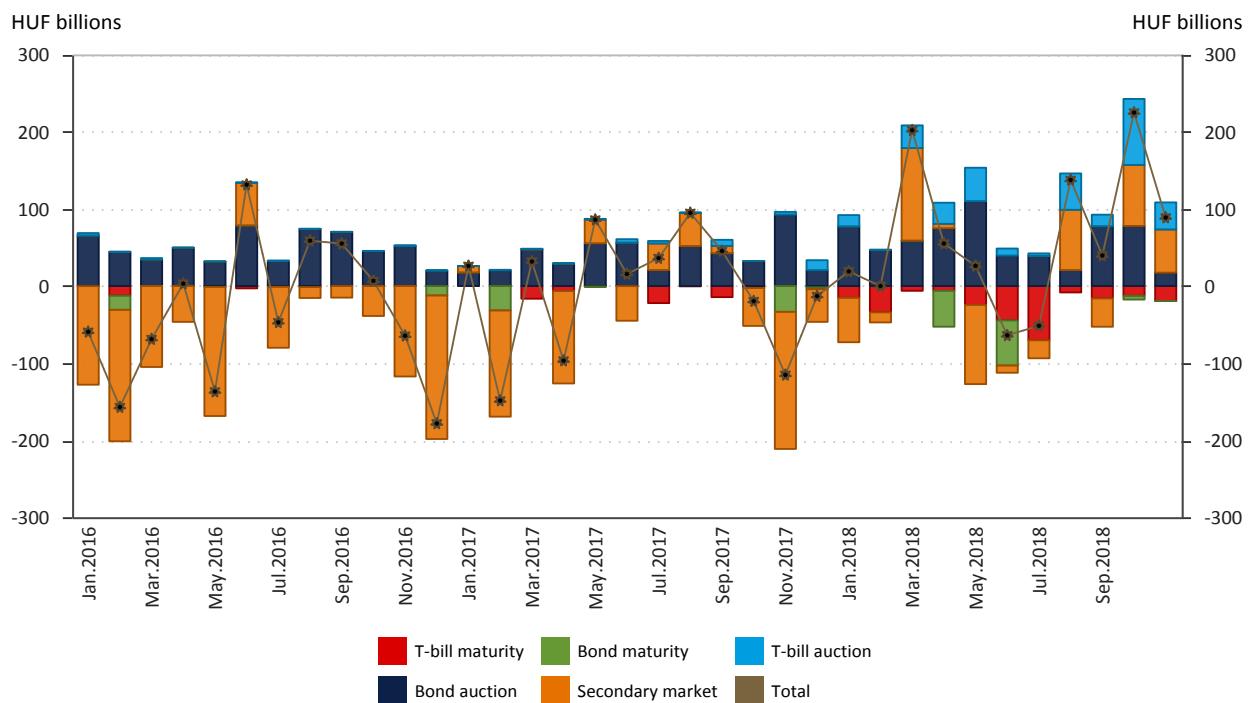
Source: MNB

Note: Based on reporting by domestic banks.

**90. Change in government securities of non-residents by tenor**

Source: MNB.

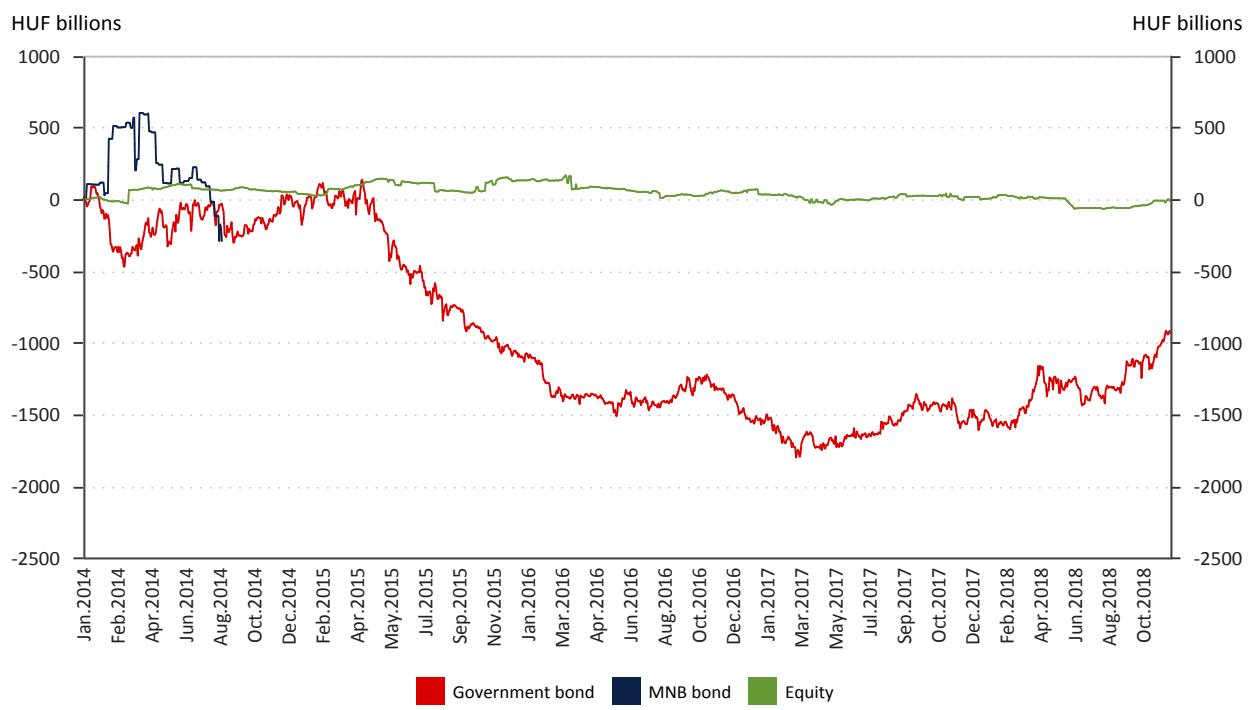
### 91. Decomposition of change in government securities held by non-residents (last months)



Source: MNB

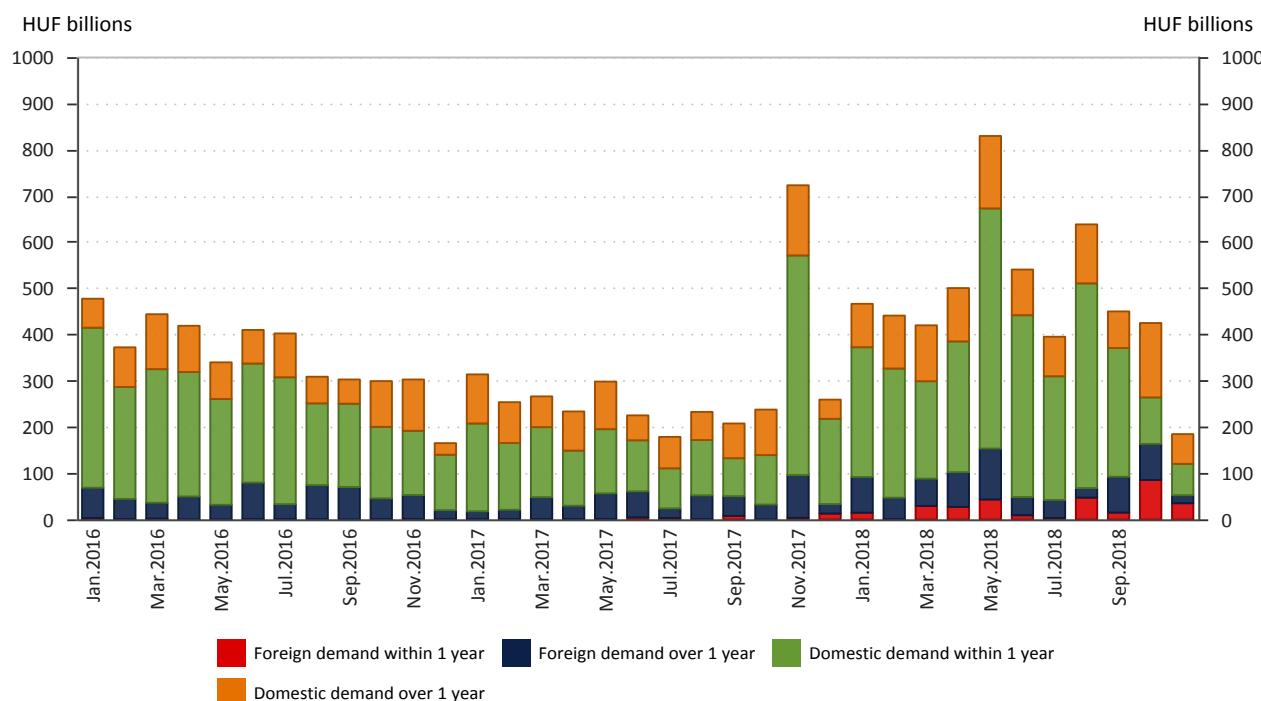
Note: Last month is incomplete.

### 92. Forint financial assets held by non-residents



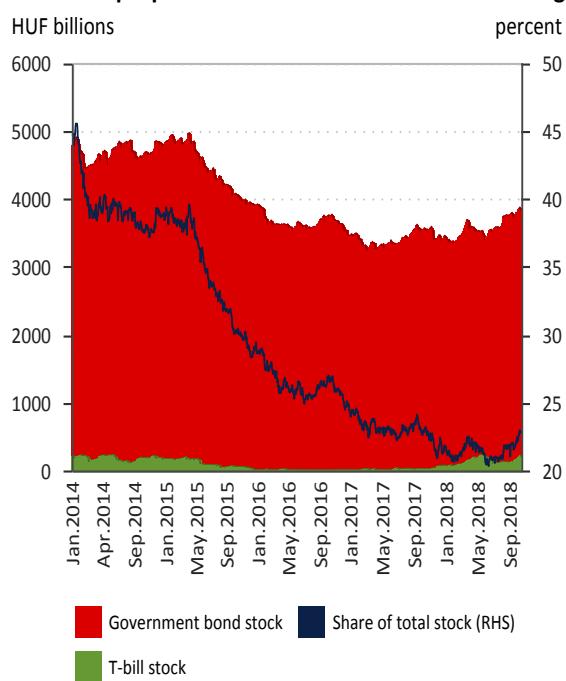
Source: MNB, KELER

Note: Cumulative change. Equity data are not comprehensive, it contains data for large- and mid-cap stocks quoted on the Budapest Stock Exchange.

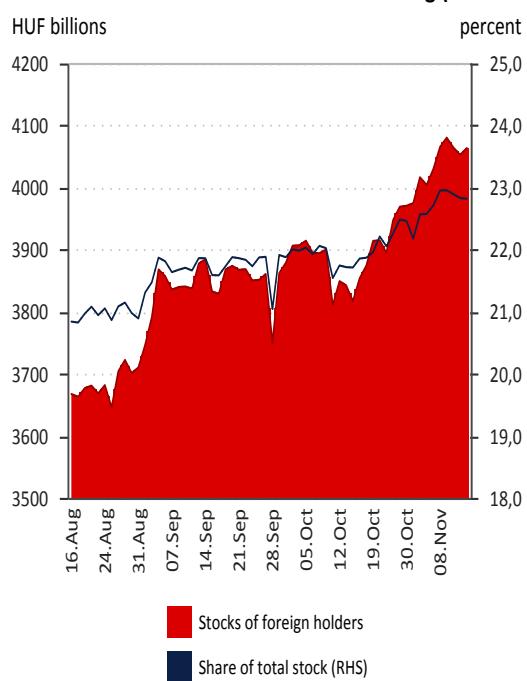
**93. Primary market government security purchase of domestic and non-resident investors**

Source: MNB

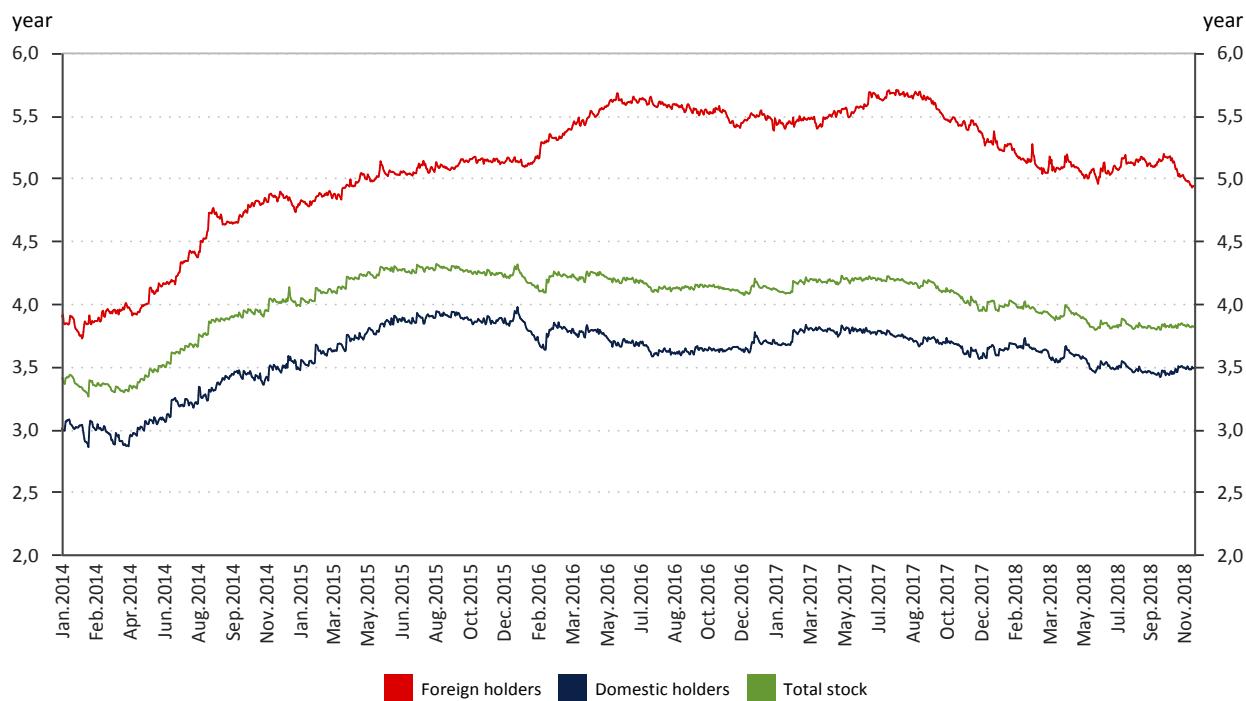
Note: Last month is incomplete.

**94. Government securities held by non-residents and the proportion to the total amount outstanding**

Source: MNB.

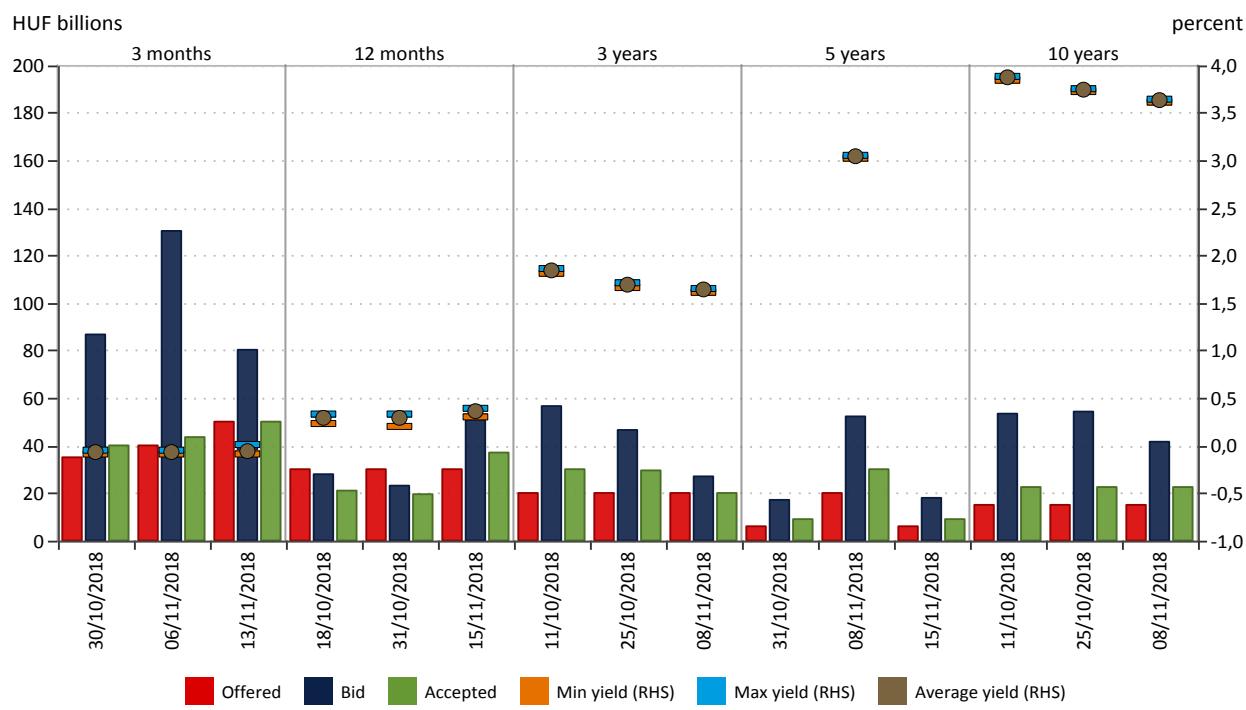
**95. Government bonds held by non-residents and the share of the total amount outstanding (last months)**

Source: MNB.

**96. The average time to maturity of government security portfolio of residents and non-residents**

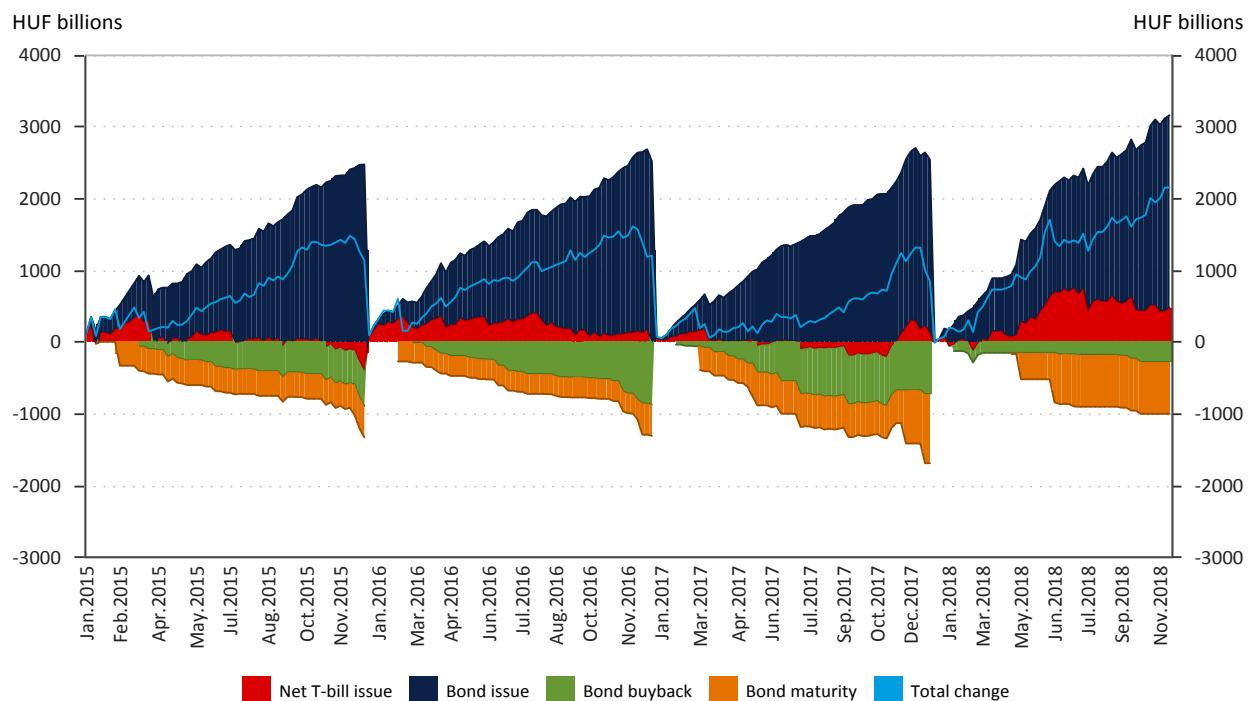
Source: MNB

Note: Based on HUF government bonds and T-bills.

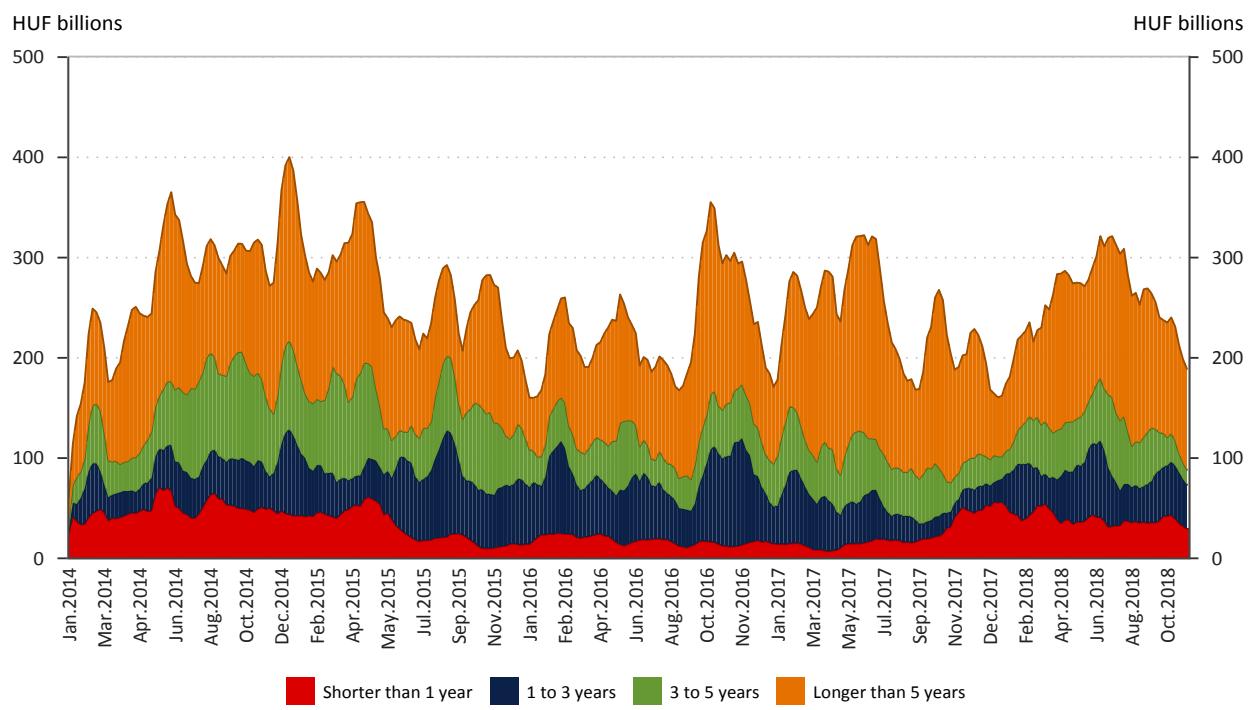
**97. The turnover and yield data of the Hungarian primary T-bill and T-bond issues**

Source: ÁKK

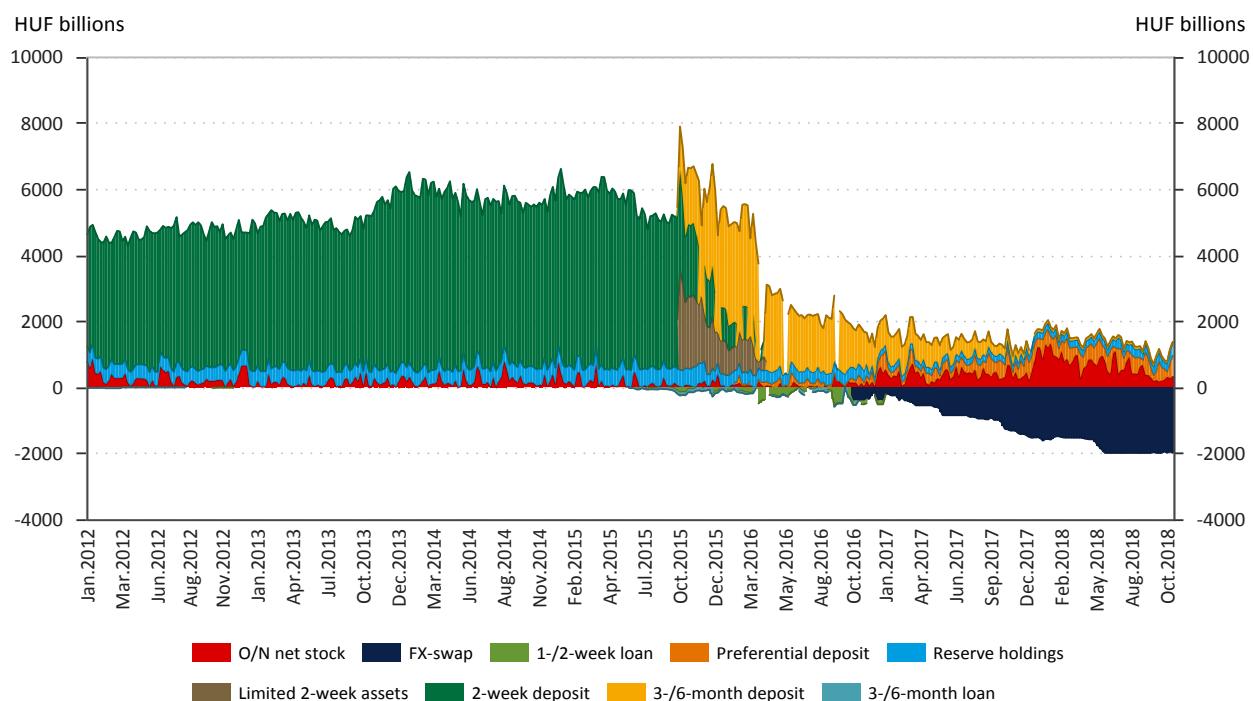
Notes: the turnover and yield data of the Hungarian primary t-bill and t-bond issues. In case of floating rate bonds the yield data are not be plotted.

**98. Government securities issues, buybacks, redemptions**

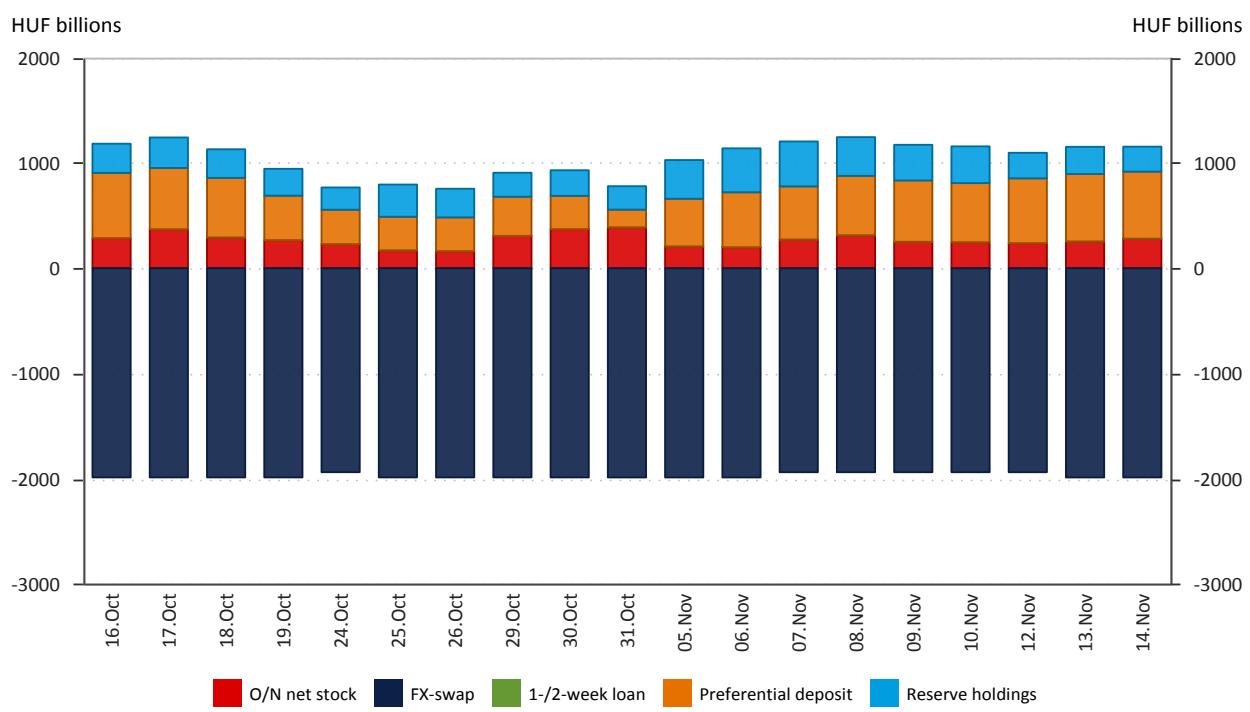
Source: MNB.

**99. Turnover on the secondary market of government securities**

Source: MNB, KELER.

**100. Selected assets and liabilities of the MNB**

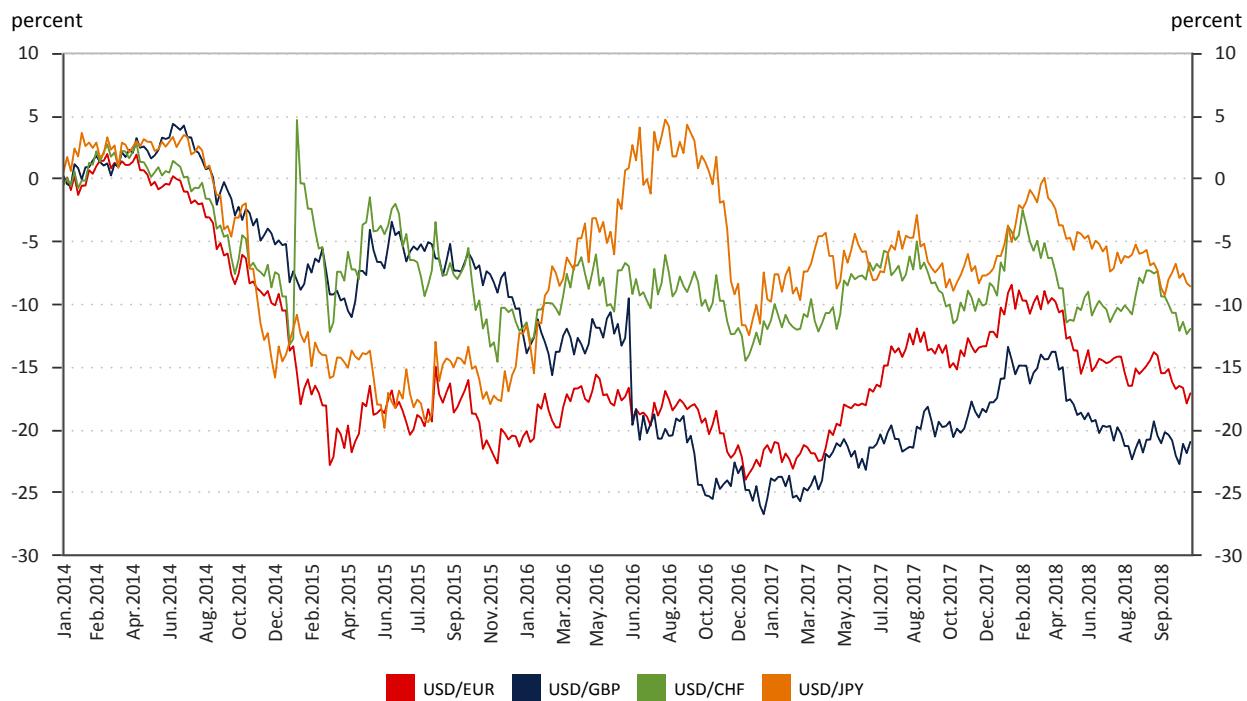
Source: MNB.

**101. Use of selected facilities of the MNB beside the main instrument**

Source: MNB.

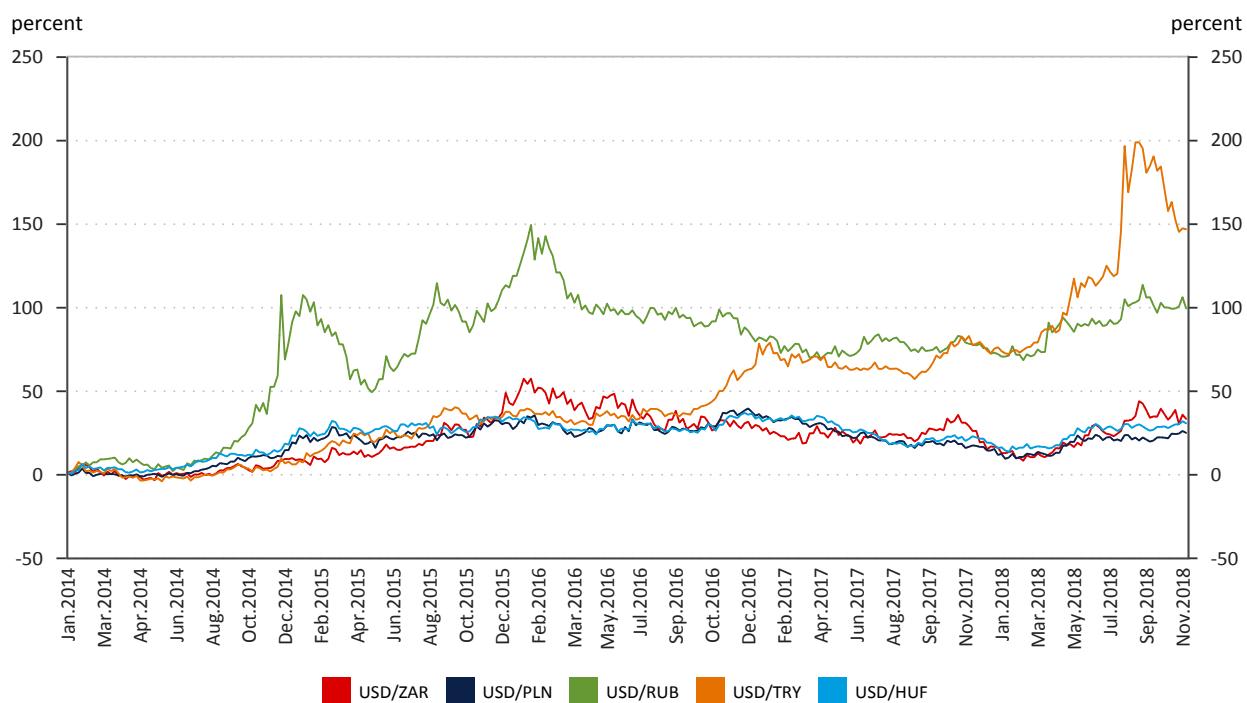
**102. International developments***Overview*

<b>Indicator</b>	<b>1 month ago</b>	<b>1 week ago</b>	<b>Current</b>
Fed base rate (%)	2.25	2.25	2.25
ECB base rate (%)	0.00	0.00	0.00
10-year T-bond yield (%)	3.21	3.18	3.11
10-year euro yield (%)	0.46	0.41	0.36
VIX Index (%)	17.4	17.4	20.6
EMBI Global spread (bp)	369	388	405
SP 500 Index	2809	2781	2702
DAX Index	11715	11529	11354
NIKKEI Index	22549	22250	21846
USD/EUR exchange rate	1.15	1.13	1.13
USD/JPY exchange rate	112.65	113.83	113.64
CHF/EUR exchange rate	1.16	1.13	1.14
Brent oil (USD per barrel)	80.0	70.1	66.5

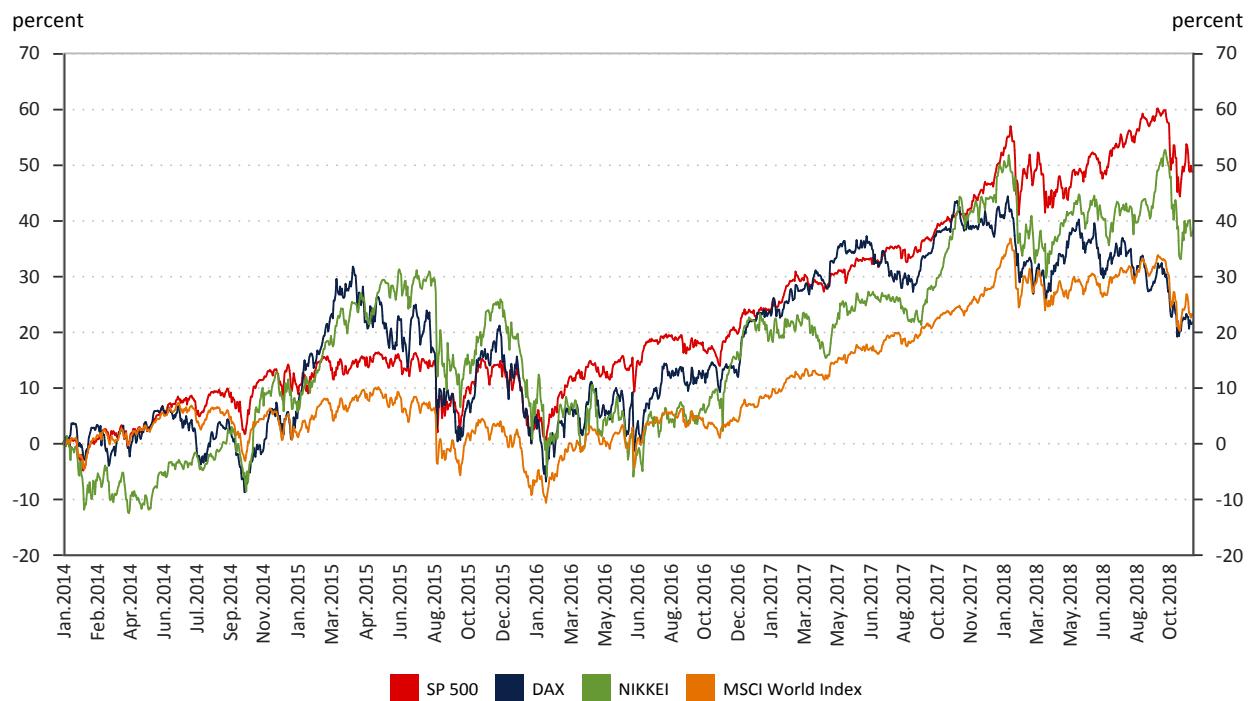
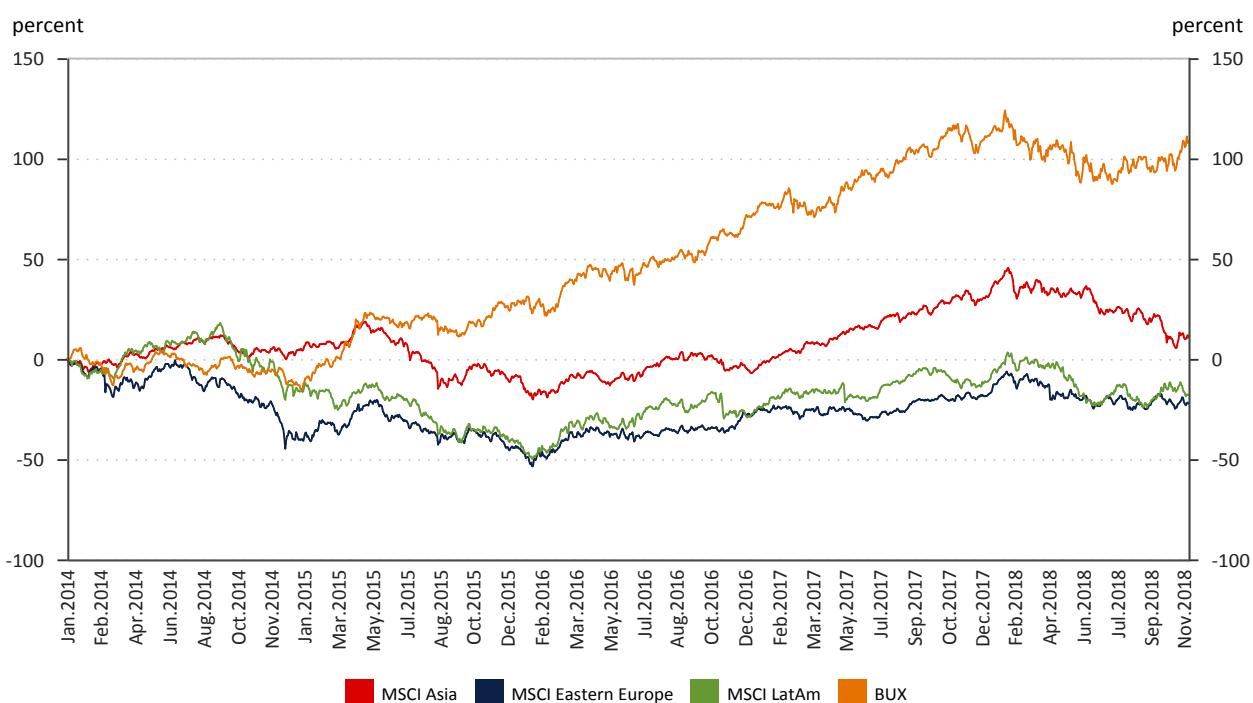
**103. Major currencies versus the dollar**

Source: Thomson Reuters

Note: cumulative change. Positive values indicate USD depreciation.

**104. Emerging currencies versus the dollar**

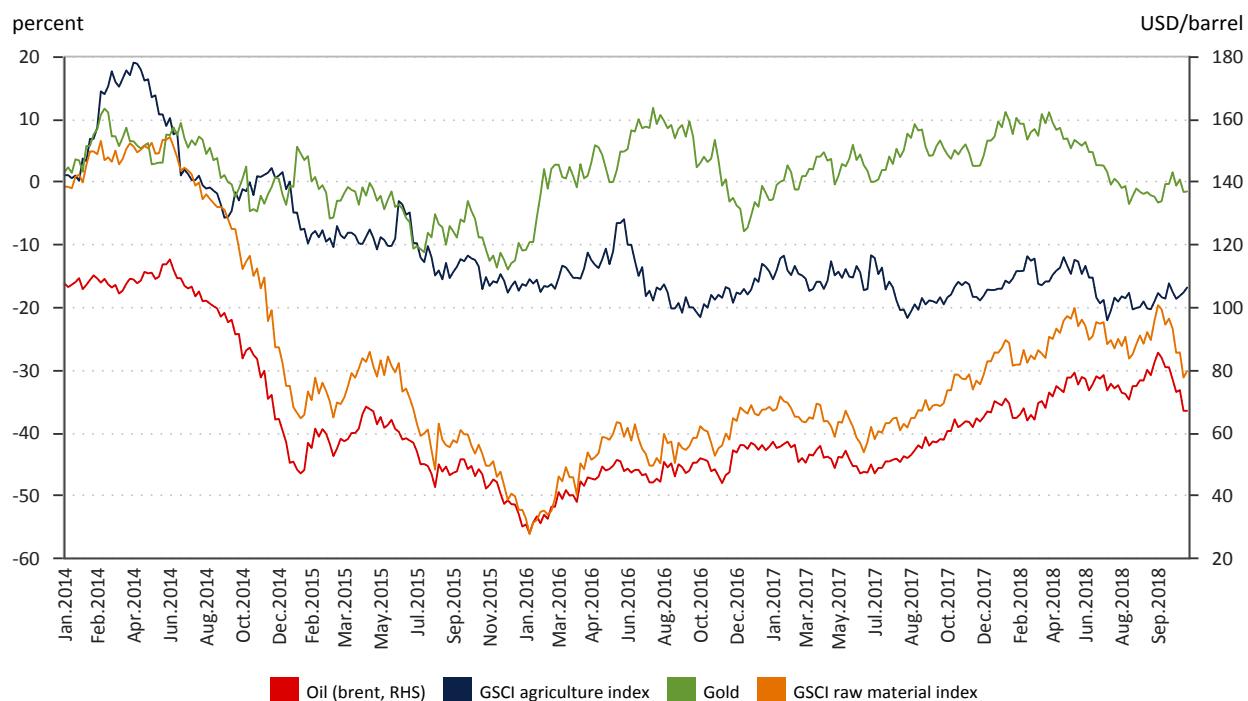
Source: Thomson Reuters Notes: positive value means depreciation of the emerging currency. Cumulative change.

**105. Developed market stock indices****106. Emerging stock exchange markets**

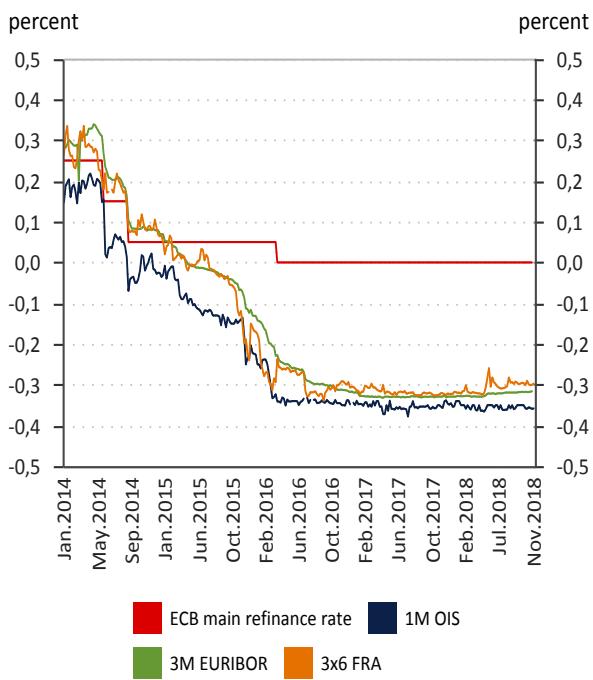
**107. EUR/USD exchange rate and speculative positions**

Source: Bloomberg, CFTC.

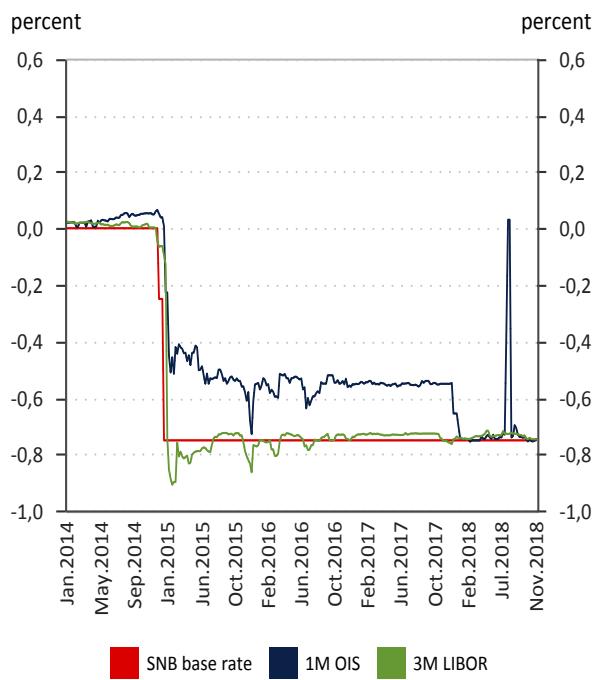
Notes: Speculative position is defined as a net of long and short transactions. Positive value means the majority of open positions on euro strengthening. Weekly data by Commodity Futures Trading Commission.

**108. Price of raw materials**

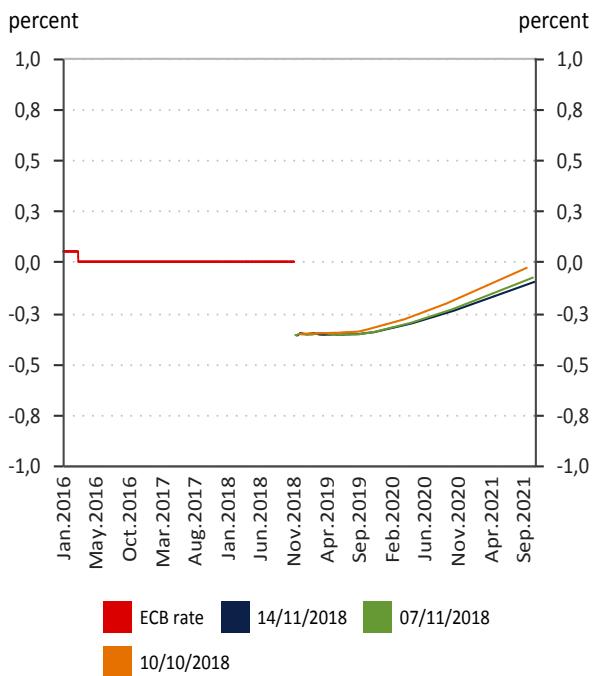
Source: Thomson Reuters Note: cumulative change except the Brent oil where the scale is nominal.

**109. Short term interbank rates in the eurozone**

Source: Thomson Reuters.

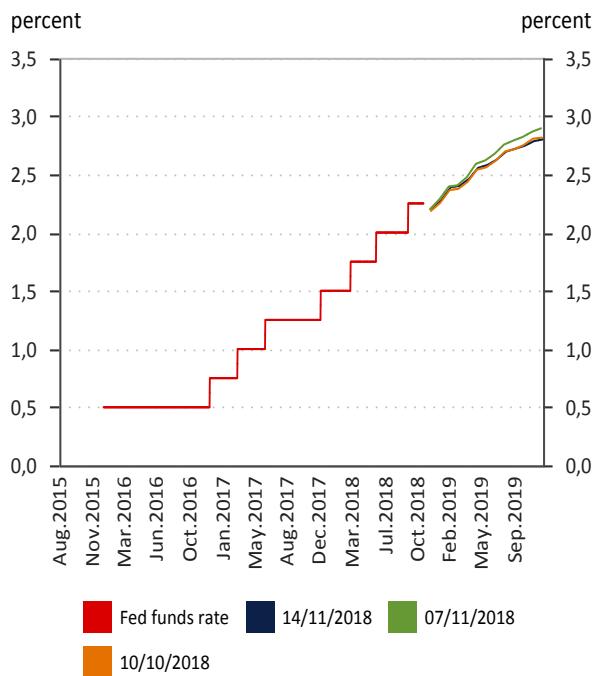
**110. Short term interbank rates in Switzerland**

Source: Thomson Reuters.

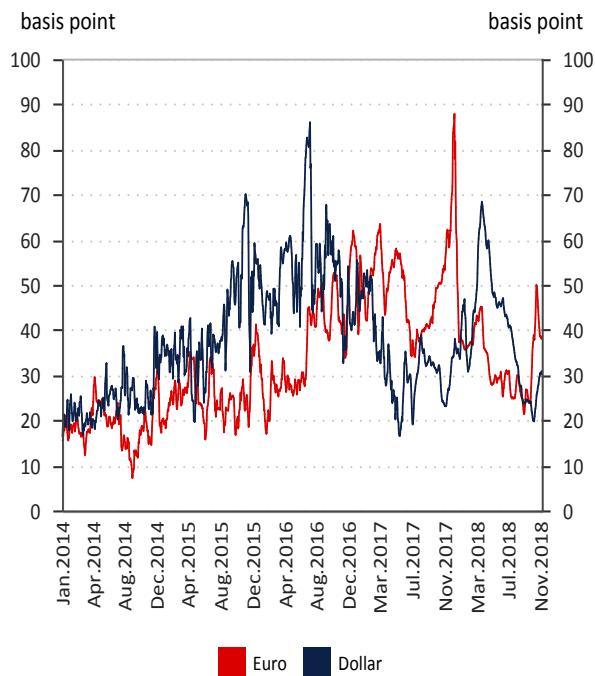
**111. Forecasts on ECB policy rate**

Source: ECB.

Note: Calculated 3-months forward yield curve based on German government bonds.

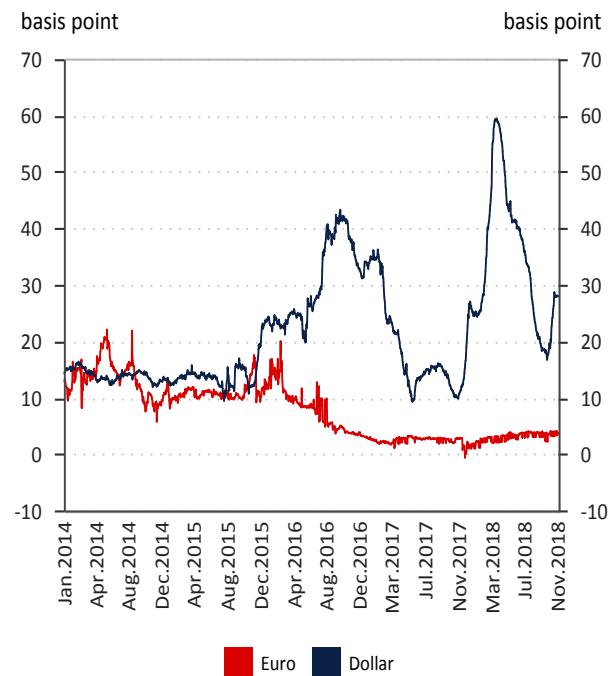
**112. Forecasts on Fed policy rate**

Source: Bloomberg.

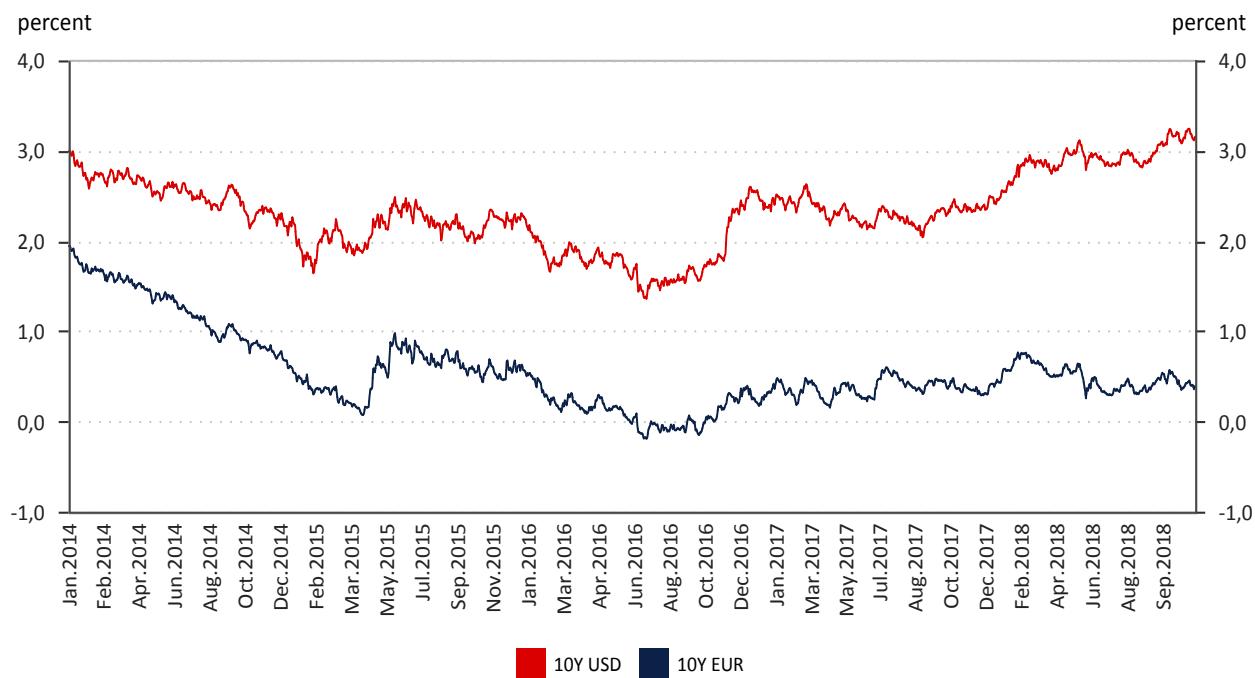
**113. 3M interbank and government bond yield spread**

Source: Thomson Reuters.

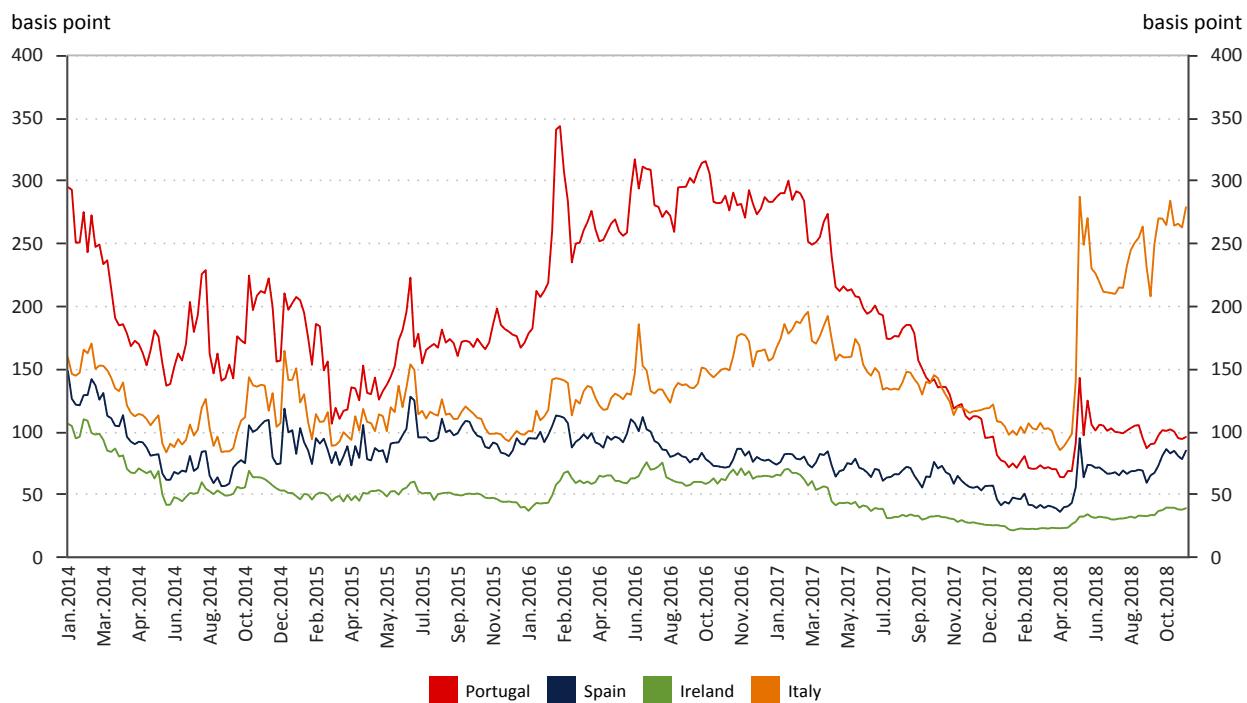
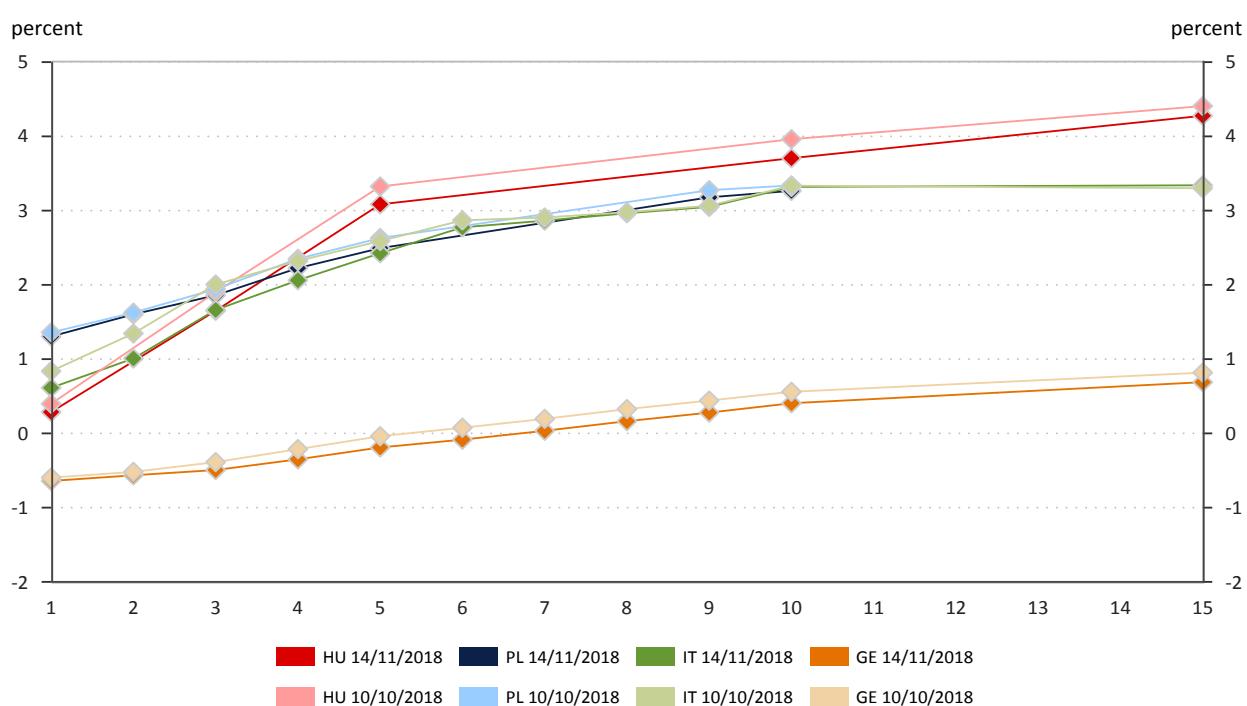
Notes: Spread between 3-month interbank rates and 3-month T-bill yield.

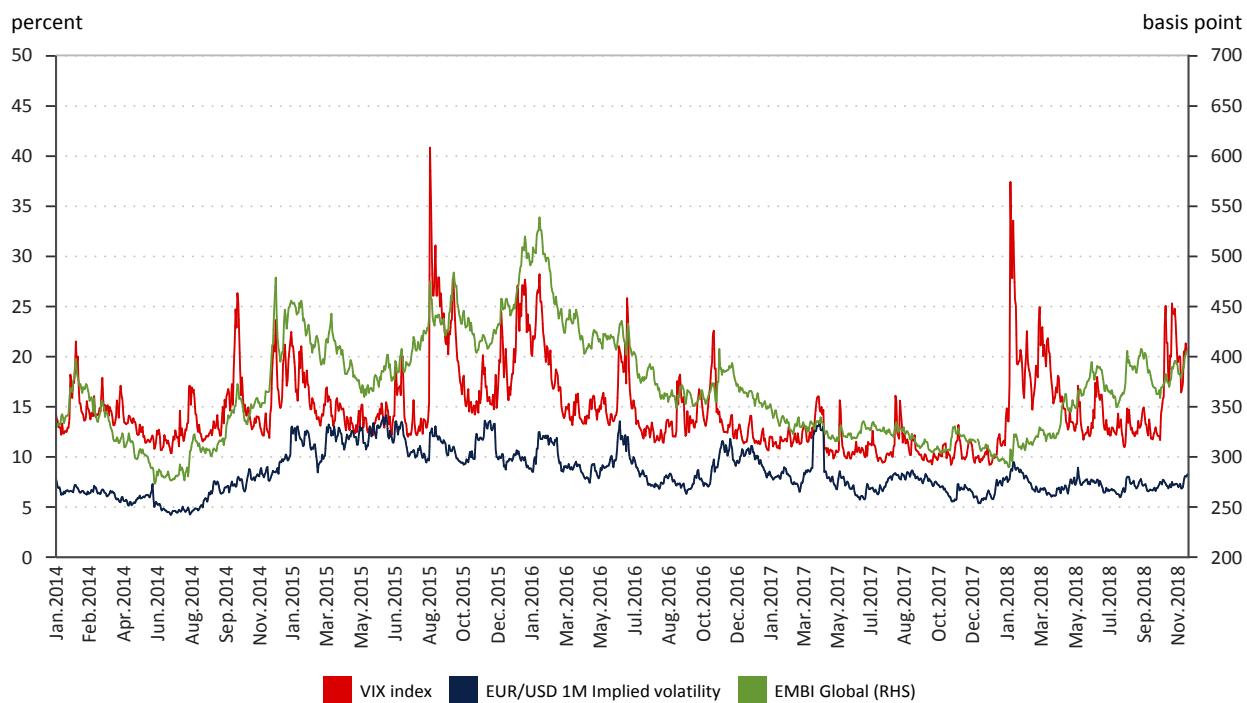
**114. 3M interbank and OIS yield spread**

Source: Thomson Reuters

**115. Long term euro and dollar benchmark yields**

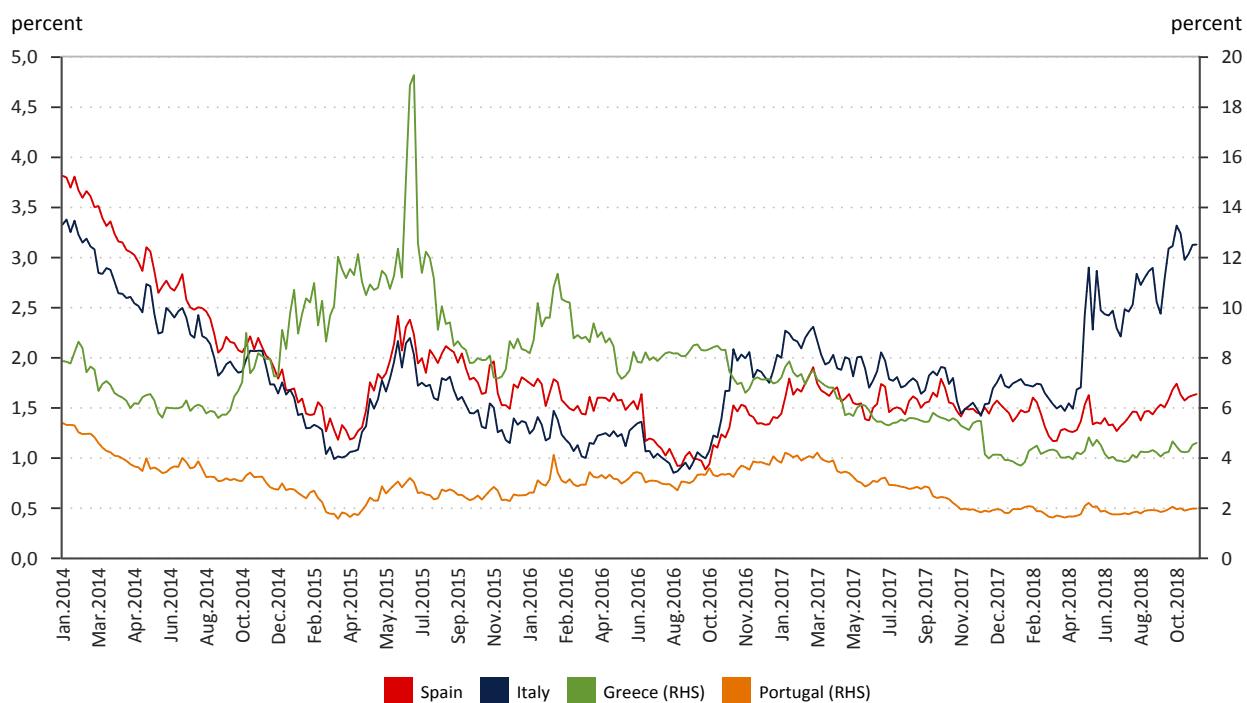
Source: Thomson Reuters.

**116. 5Y sovereign CDS in the eurozone periphery****117. Benchmark yield curves of Hungary, Poland, Italy and Germany**

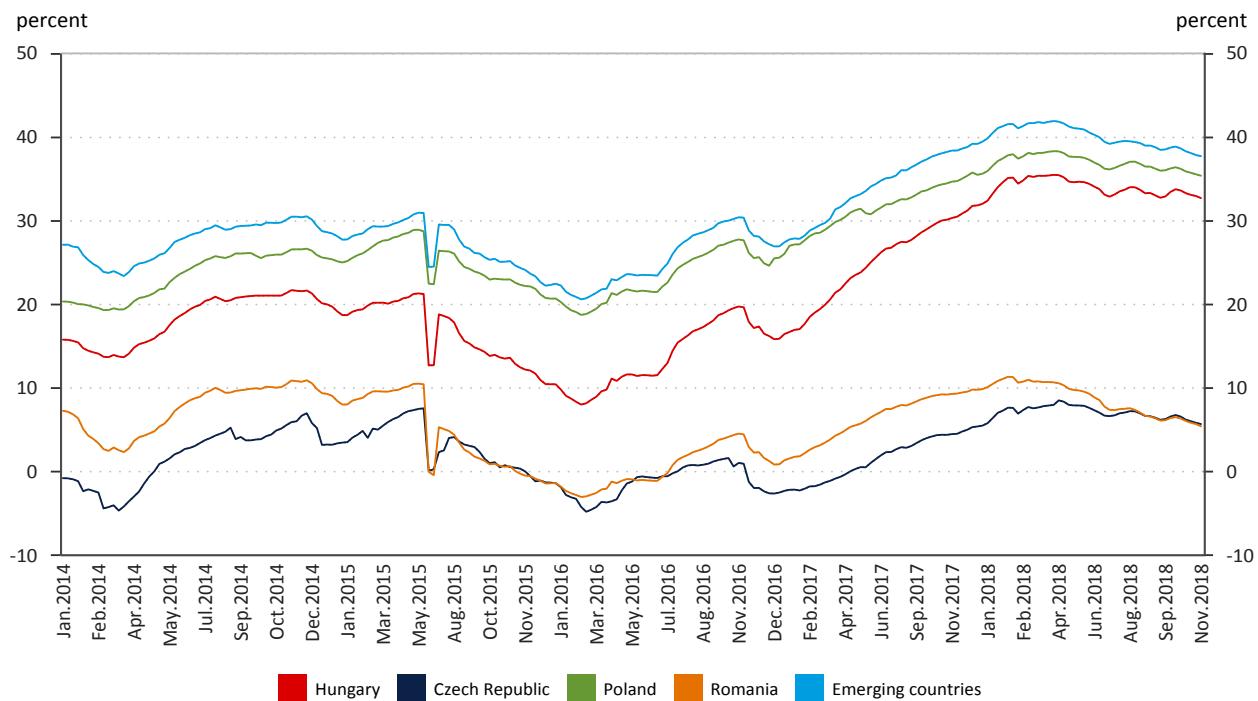
**118. Main risk indicators**

Source: Thomson Reuters

Note: An upward move indicates declining risk appetite or increasing risk aversion. VIX is the implied volatility of SP500 index.

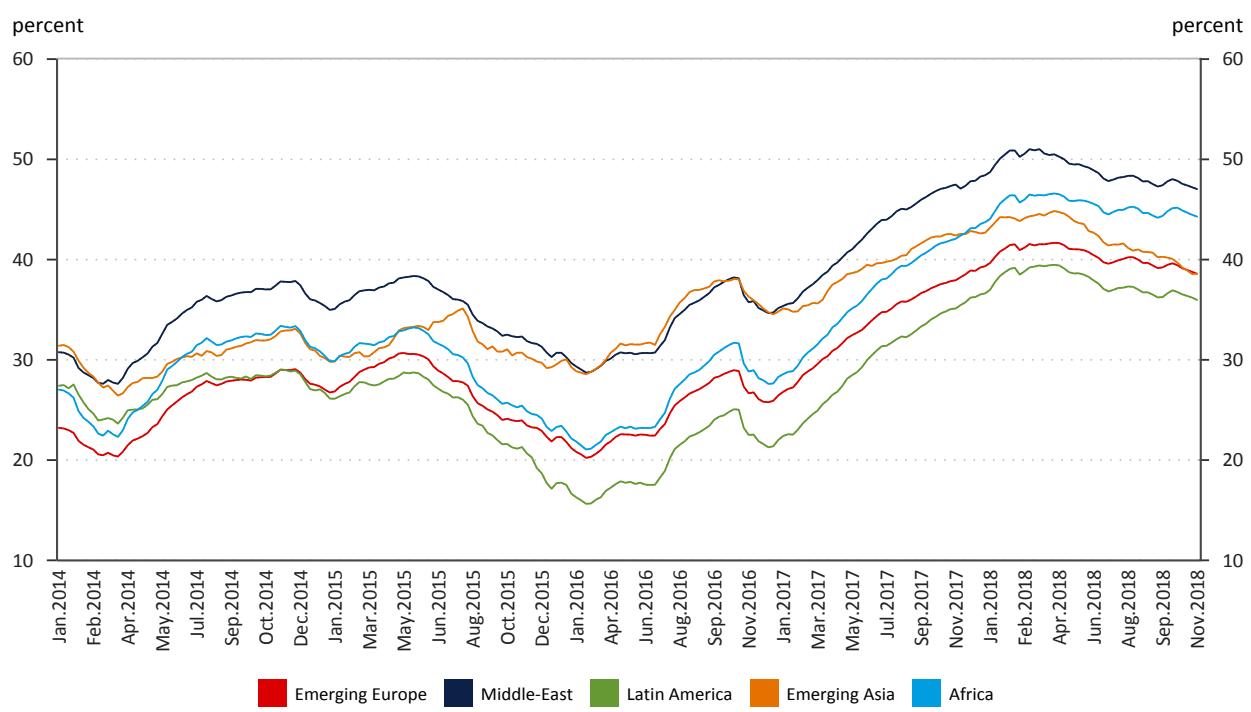
**119. Long term government bond yields in the Eurozone periphery**

Source: Bloomberg.

**120. Emerging bond-market flows**

Source:EPFR

Note: Percentage change of asset under management, 1/1/2011=0

**121. Global bond-market flows**

Source:EPFR

Note: Percentage change of asset under management, 1/1/2011=1